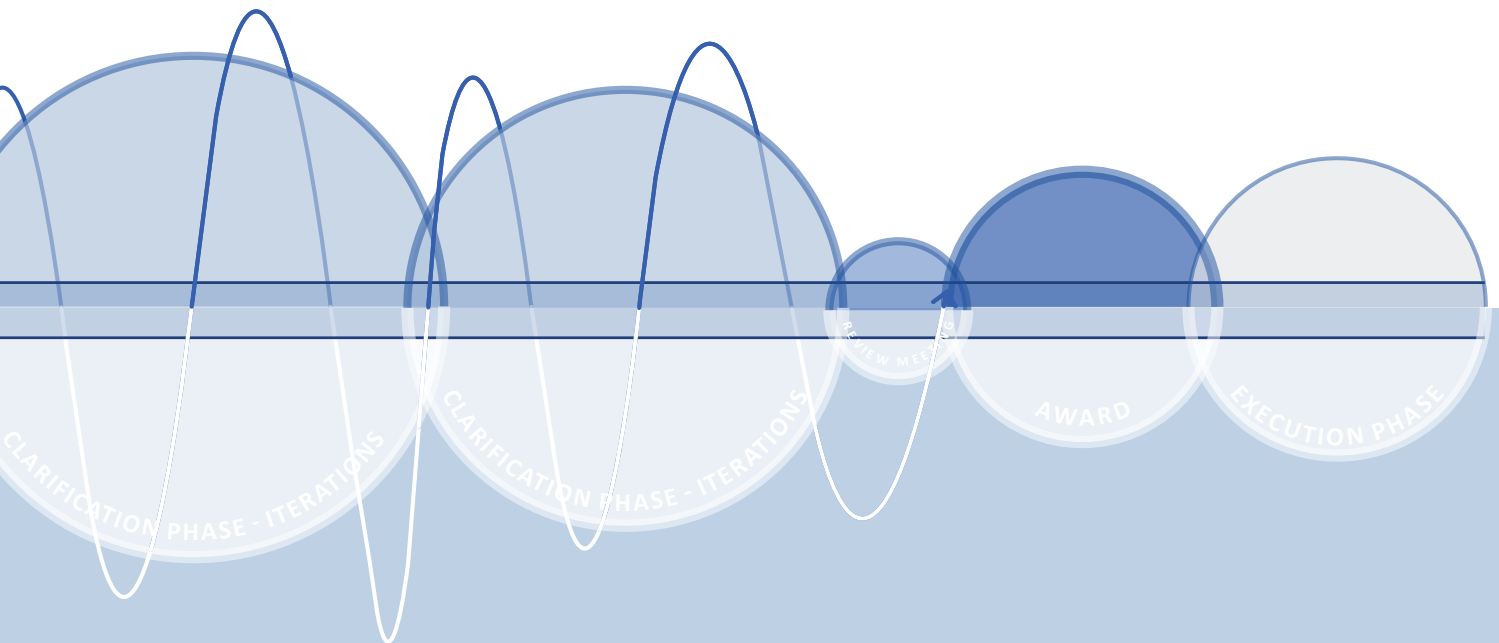


THE BEST VALUE APPROACH AT RIJKSWATERSTAAT

A MODEL OF RECOMMENDATIONS TO IMPROVE THE IMPLEMENTATION OF
THE CLARIFICATION PHASE OF THE BEST VALUE APPROACH



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PREFACE

My first encounter with the Best Value approach was during a lecture provided by Wiebe Witteveen of Rijkswaterstaat for a procurement subject at the University of Twente. After a few exploratory conversations in Utrecht we arrived at the topic covered in this study concerning the planning overruns of the clarification phase.

This report is the result of an intensive study that followed and was performed during a period of six months at Rijkswaterstaat. Rijkswaterstaat offered me an excellent opportunity to gain insight in their organization and gave me all the facilities necessary to support an in-depth study.

Central in this study is the clarification phase of the Best Value approach. During the study I gained an understanding of the clarification phase of the Best Value approach and its value for the entire project. The insights developed during the study were used to develop a comprehensive model which presents the recommendations for the observed problems in a structured manner. As a result of the validation I expect and hope that these findings in the form of the model for the clarification phase enable Rijkswaterstaat and its vendors to have a more effective and efficient clarification phases in future Best Value projects.

As it turned out the planning overruns observed at the beginning of this study are merely a symptom for a variety of problems. It became clear that additional time spend in the clarification phase is not necessarily a bad thing; it is however clear that the clarification phase could be organized in a more effective and efficient manner. I hope my recommendations can contribute to improvements for both Rijkswaterstaat and future vendors to realize this and create the Best Value possible for all involved parties.

From this position I would like to thank everyone who enabled and facilitated me to do this study and gave contributions in any form.

Tim Snippert

SUMMARY

The Best Value approach is a procurement approach, project management and risk management strategy which focuses on gaining the highest value for the lowest costs. Best Value procurement consists of three phases: the selection, clarification, and the execution phase. The main concern of this study is the second phase: the clarification phase. The objective of the clarification phase is for the vendor to clarify the scope of the work to be executed; identify if the vendor's proposal is acceptable to the client; clarify the expectations of the client; and finalize an acceptable offer for the client. It is important that the vendor further engages with the project and pre-plans the actual execution of the project in detail. The clarification phase is considered to be the most important phase as it develops the basis for the realization of the project. Problems in the clarification phase seem to cause a structural exceeding of the planning by more than fifty percent on average. As a result, the following problem statement and corresponding main research question have been developed for this study:

Problem statement

The clarification phase of the Best Value approach is not developed sufficiently in order to realize successful implementation at Rijkswaterstaat and attempts to use the clarification phase at Rijkswaterstaat did not lead to the envisioned results of the clarification phase within the planned time.

Main research question

What model for the clarification phase of the Best Value approach, based on experiences from preliminary application during Best Value projects of Rijkswaterstaat, theory concerned with the clarification phase of the Best Value approach, and literature concerned with theories of this type of project phase, can be used for infrastructural projects at Rijkswaterstaat to enhance its performance?

An initial reconnaissance of the implementation of the clarification phase through analysis of project evaluations and analysis of the Best Value theory resulted in the selection of the agency and stewardship theory as a theoretical framework. From a theoretical perspective, the Best Value approach shows significant similarities with the stewardship theory in its approach of the client-vendor relationship. Initial insights in the clarification phase practice reveal characteristics similar to the agency theory. Due to their theoretical and practical applicability, these theories have been selected to analyze the documented case studies, as well as to help understand the actual use of the Best Value approach.

Following from these case studies, it can be concluded that the planning overruns can be seen as a symptom of various issues that occur during the clarification phase. The analysis of the case studies resulted in the appointment of several main issues that are coupled with matching recommendations. The formulated recommendations are structured in a model of recommendations for improving the effectiveness and efficiency of the clarification phase. An evaluation estimates the effectiveness of the model of recommendation in relation to the observed problems. From this, the conclusion can be drawn that the model of recommendations sufficiently covers all problems and that the recommendations are expected to contribute to a more effective and efficient phase. The main problems and corresponding recommendations are divided in five categories:

Experience with Best Value

Involved persons have almost no experience with the Best Value approach and/or the clarification phase.

- An important recommendation, especially for the vendor (since the client has an advisory team), is that when anything is unclear regarding the clarification phase a certified Best Value expert should be hired to ensure the phase is fully understood (i.e. goal, roles, and products).

Planning

The complexity and size of the project are not taken into account in both the advice for the planning of the clarification phase (client) and the actual planning (indication is often taken over by the vendor).

- Include the complexity and size in the indication for the duration (client) and the final planning (vendor) of the clarification phase.

The planning does not contain sufficient iterations to develop the envisioned products.

- Sufficient iterations should be included in the planning. A general indication is three to five iterations for complex products such as the project management plan and the risk management plan and one to three iterations for less complex products such as the value added plan.

Underestimation of the duration of the mobilization period (vendor).

Mobilize the IPM team as a basis as soon as possible; supporting team tends to grow during the clarification phase.

- Include the mobilization period in the planning (in general the first two weeks) (vendor).

Budgets set by the vendor for the clarification phase are not sufficient (relates to the scope and level of detail of the clarification phase products that are not clear).

- Ensure that the processes of the clarification phase and the demanded products are amply understood to plan and budget a realistic process.
- The clarification phase budget should be included in the bid and not be seen as part of the tender budget (vendor). Client could demand a cost specification of the clarification phase (facilitating).

Project teams and roles

It is not sufficiently clear how the roles of the teams of the client and the vendor have to be fulfilled during the clarification phase. The expectations regarding these roles between client and vendor are not adequately aligned.

- The role of the client includes assessment of the acceptability of the offer and facilitating of the vendor. Basic aspects for this are concerned with listening, observing, asking questions, delivering and demanding information, and pointing out the blanks in the elaboration of the bid and the pre-planning of the project.
- The role of the vendor includes being in the lead, being pro-active, unburdening the client, and answering questions of the client. Basic aspects related to this are for the vendor to initiate, coordinate, and analyze for the client.
- Align the expectations of the roles at the start of the clarification phase and demand commitment to these interpretations (one of the first meetings).

Tendency to revert to manage, direct, and control attitudes.

- Do not accept a reversion to the classical manage, direct, and control from any of the involved persons or parties. Retain the envisioned roles during the clarification phase.
- Only manage by exception: this means active management of the vendor when the vendor does not meet the agreements concerning the roles or when the client's interests are possibly harmed (client).
- Indicate when the client reverts to a manage, direct, and control attitude (vendor).

The vendor is often not in the lead during the entire length of the clarification phase.

- Ensure that the role of being in the lead is fully understood and aligned with the client (vendor).
- As vendor, indicate when the client reverts to manage, direct, and control (protect the lead) (vendor). Manage only by exception when the vendor does not meet the agreed roles and corresponding lead position (client).

Products

The scope and level of detail of the products of the clarification phase are not clear.

- Have a clear vision of what is necessary to award the project before the clarification phase commences (client).
- The vendor should have a clear vision on what products are going to be produced and what the scope and level of detail is.
- Expectations regarding the scope and level of detail of the products should be managed and aligned at the start of the clarification phase (from the lead perspective of the vendor).

Process

A basis of trust is lacking or there is even a basis for distrust which results in the demand for more more details.

- Use past performance information (when available) of successfully delivered earlier projects to develop a verified trust base (vendor).
- Process capacities of the IPM roles of the project teams are important for a successful clarification phase.
- Plan moments where the focus is not entirely on the products (e.g. at the start of the phase in order to enable the teams to get to know each other).
- Be open and pursue transparency to development trust and establish personal power (e.g. share complete information and pinpoint concerns and observed risks).

Through a survey with a selection of main problems and corresponding recommendations, the validity of the findings is checked. Based on the survey results the observed problems and the proposed recommendations were found to be valid with an average of 2.17 (agree; on a five point scale with 1 as maximum). The survey had a high response rate (58%) spread over all projects from which team members were invited. The consulted Best Value experts at Rijkswaterstaat confirm this positive image gathered from the survey as well, with an average of 1.90 (agree) on the same questionnaire. Based on the findings of this study and the validation that confirm the findings it can be concluded that the model of recommendation and its underlying problems are valid and representative. Results of the surveys emphasize that it is likely that the model of recommendations enhances the effectiveness and the efficiency of the clarification phase. As a result it is concluded that the model of recommendations can contribute to an enhancement of the performance of the clarification phase in future Best Value projects.

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INTRODUCTION

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1.1 INTRODUCTION

In this chapter the background of the study is introduced to give insights in the reasons behind the study and make the process of the study and the report clear.

In this chapter first the knowledge claim (1.2) and the theoretical perspective (1.3) used during this study will be presented. The significance of the study (1.4), the corresponding knowledge gap (1.5) and the resulting problem statement (1.6) are presented next. Based on the introduced problems the research questions used during this study are presented (1.7) along with the purpose of the study (1.8). The research structure (1.9) and the method (1.10) used to find the answers for the research questions are introduced. Finally a guide to the reader (1.11) is presented as an introduction towards the rest of the report.

1.2 KNOWLEDGE CLAIM

A worldview or knowledge claim can be seen as the basic set of beliefs that guide action during this study (Creswell, 2009, Guba, 1990). The dominant worldview for this study is pragmatism. Pragmatism is characterized by emphasizes on the research problem and the use of all approaches available to understand the problem. It suits this study because of the following reasons introduced by Rossman and Wilson (Rossman & Wilson cited in Creswell, 2009):

- Pragmatism is not committed to one specific system of philosophy and realities. This enables the possibility to draw from both quantitative and qualitative assumptions during the study.
- Adjacent to the previous argument is the possibility to have freedom of choice in the execution of this study for the use of quantitative and qualitative assumptions, methodological based data, results and the design of the research.
- That the execution of this study is embedded in historical, political, social, and other contexts that influence the process.

1.3 THEORETICAL PERSPECTIVE

Another element that influences the way of focusing during this study is the educational background formed by the study Civil Engineering and Management at the University of Twente. The program focuses on the formulation of integrated solutions for problems in the field of civil engineering. A central aspect is the interaction between practice and the theoretical insights and tools to approach projects and establish project-based learning. The program covers a wide array from process- and project management notions to specific knowledge about procurement and utilizing concepts such system engineering. Knowledge of these various aspects is considered key to develop integrated solutions because integrated refers to various sub-processes that underlie the construction process, from conception to demolition (www.utwente.nl, 2013).

Past experience during the study Landscape Architecture at the Wageningen University and during experience in this field are also likely to influence the way of focusing during this study. Key aspects that might be of importance during this study are the ability to select, analyze and combine the knowledge available in multiple domains such as the social- and formal sciences. Also, a more systems approach towards research problems to develop sustainable solutions is considered key.

1.4 SIGNIFICANCE OF THE STUDY

To appoint the significance of the study first some recent developments in the Dutch construction sector will be discussed that resulted in the contemporary setting of procurement. After this brief introduction the focus shifts towards this study and how this will try to make a contribution.

PAST PERFORMANCE OF PROCUREMENT IN DUTCH CONSTRUCTION

The contemporary development of new methods for procurement in the Dutch public sector originates from the large fraud in the Dutch construction sector. Earlier, in the late 1980's SBR already published a report indicating that the Dutch construction sector had created and was maintaining an improper practice in which opportunistic behavior could be seen as the norm. Already in that period it was concluded that this type of behavior resulted in doubtful quality of created products, a lacking competition during procurement, little mutual respect, and large cost overruns (Haselhoff & Rijlaarsdam, 1988).

Later, in 2001 an extensive and widespread use of cartels and bid rigging within the Dutch construction sector unfolded which lead to a damaged image of the construction sector by the general public and the clients. Investigations and the allegations had significant impact on the trust and relationships between public sector clients and the construction sector (Dorée, 2004, Priemus, 2004, Heuvel, 2005). The inquiry investigating the Dutch construction fraud concluded that the bid rigging was not only the fault of the private sector, but also the result of neglected government responsibilities to develop consistent policy and procurement regulations for the construction sector (Dorée, 2004, PEB, 2003, Priemus, 2004, Heuvel, 2005).

The inquiry promoted the use of a rather one dimensional procurement strategy to improve the capacity of competition by focusing on the price (PEB, 2003). Other aspects such as a longer timeframe, the effects on innovation, technology development, and welfare creation are not taken into account. Focusing on price stimulates the development of problems in the project control area. Contractors will put effort in initiating claims to minimize financial losses after the contracts have been put into place, creating adversarial relationships that deteriorate trust (Dorée, 2004). Instead of restoring trust it was already expected that it would be likely that a vicious circle would be created and the opposite of what is envisioned was going to be achieved.

Already in the period before and strongly after the unfolding of the Dutch construction fraud advises were published to focus less on the

selection based on lowest bid only. This trend developed itself to focus more on value and quality driven competition, integrated team performance, and focusing on long-term commitments instead of developing the mentioned claiming culture (Dorée, 2004, Haselhoff & Rijlaarsdam, 1988, Seaden & Manseau, 2001). Expectations are that these structures will add to the innovation capacity of the sector, stimulate healthy competition, improve business relationships, and add to the overall industry performance (Dorée, 2004, Graafland & Nijhof, 2007, RegieraadBouw, 2006).

During recent years the notion of enhanced incorporation of quality during the procurement process and at the selection of a tender developed rapidly. The concept of Most Economically Advantageous Tender (MEAT; EMVI 'Economisch Meest Voordelige Inschrijving' in Dutch) is continuously being refined and applied during public procurement processes (Jansen et al., 2007, Bijsterveld, 2010, Dorée, Wal & Boes, 2011). MEAT advocates the use of both quality and price as criteria, instead of selecting tenders based on price only. Recently the new procurement law was put into place which incorporates the European procurement legislation, and emphasizes the use of quality as an important criterion for the selection of a tender (Ten Kate-Sloots et al., 2012).

DEVELOPMENT OF BEST VALUE AT RIJKSWATERSTAAT

The construction fraud also had its consequences for Rijkswaterstaat. In 2004 a business plan was released named a new perspective for Rijkswaterstaat. The business plan appoints the focus on the market (market, unless...) and the balance between price, quality, and performance. Important changes are calculating in advance what something is allowed to cost, no longer specifying in detail how a market party should realize products (shift to functional specifying) and introducing boundaries for control, budgeting, and quality (Rijkswaterstaat, 2004). The follow-up vision in 2008 and business plan in 2011 continue on the vision introduced right after the construction fraud to transform the organization from an infrastructure management organization to a public-oriented network manager. Increased emphasis on quality, end-user satisfaction, and sustainability (together at least 60% of MEAT) are important goals (Rijkswaterstaat, 2008) and an emphasis on leading project management, utilization of knowledge of the market, and being driven by fitting solutions to realize complex projects are central ambitions (Rijkswaterstaat, 2011).

To realize the ambitions and realize services and project various procurement procedures are used in which Rijkswaterstaat aims for a sustainable and effective competition, an efficient procurement process, and as introduced an optimal price-quality ratio. MEAT is used by Rijkswaterstaat to enhance the quality of the selected tender. Examples of the ways Rijkswaterstaat tries to enhance the quality is more public focused services, sustainability, risk management, and enhanced innovation in the sector. Main contract types used at Rijkswaterstaat are Design & Construct, Engineer & Construct, and Design, Build, Finance and Maintain (www.rijkswaterstaat.nl, 2013:a).

Rijkswaterstaat experiments with new procurement approaches to keep on top and realize the ambitions set in the business plan. Implementing the Best Value approach to enhance the value of projects and use the expertise of the tenders better is part of ongoing pilots to refine this type of procurement. Rijkswaterstaat uses Best Value procurement also to control risks more efficiently and use opportunities better (www.rijkswaterstaat.nl, 2013:b). Best Value procurement has thus the potential to contribute to the raising demand for a better balance between quality and price and fits in the contemporary context to realize projects with a better value at the lowest costs. As will be introduced in the knowledge gap, this study has the potential to contribute to the development of the Best Value procurement approach at Rijkswaterstaat.

1.5 KNOWLEDGE GAP

As appointed in the significance of the study, Best Value procurement fits in the contemporary demand for the realization more value and a better balance between quality and price. Best Value will be introduced further in the next chapter.

The most important phase of Best Value is the clarification phase because it stimulates vendors to further engage in the project and supply more detail on how they will deliver the propositions made during the selection phase (Rijt & Santema, 2013). Notable is that at the same time Kashiwagi and Rijt & Santema notice that the clarification phase is "the least developed part of best-value procurement" (Rijt & Santema, 2013, p.132, Kashiwagi, 2013:b p.79). During implementation of the Best Value approach by Rijkswaterstaat in 'Programma Spoedaanpak Wegen' (first pilot) minor adaptations were made to the theory due to Dutch and European legislation. An important adaptation compared to the theory was the use of the clarification phase after awarding the project to a vendor. The clarification phase was transformed to an introduction phase of the realization of the projects (Rijt et al., 2011).

In pilots after the Spoedaanpak the clarification phase was used more as suggested by the Best Value theory, before awarding the project to a vendor. Evaluations of these pilot projects recognize the importance of the clarification phase, but also observe problems (Andersson Elffers Felix, 2012, Vulperhorst, 2010, AT Osborne, 2011, Bree, 2013). This is also reflected by the duration of the clarification phases of various pilot projects compared to the planning of the vendors. In figure 1.1 the planned duration is presented versus the realized duration. This figure indicates that the execution of the clarification phase does not go according to plan. Problems in the clarification phase seem to cause structural exceeding of the planning by more than fifty percent on average. Notable is the difference between Design & Construct and Engineering Services projects.

Reports on pilot projects indicate various aspects of the clarification phase that are not going according to plan or according to the intentions of the Best Value approach:

- Vendors are not prepared well enough to realize a fast and good start of the clarification phase (deBreedte Organisatieadvies, 2013b).
- Incorrect and unclear expectations about the clarification phase, its products and the level of detail of products (Binsbergen, 2013, Bout, 2013, deBreedte Organisatieadvies, 2013:b, NIC, 2013:b)
- Related to the previous one, discussions during the clarification phase concerning the content and goals of the clarification phase (deBreedte Organisatieadvies 2013:a, deBreedte Organisatieadvies, 2013:b, NIC, 2013:b).
- Lacking communication and information exchange during the clarification phase (deBreedte Organisatieadvies, 2013:a, deBreedte Organisatieadvies, 2013:b).
- Insufficient realization of project alignment between Rijkswaterstaat and vendors (deBreedte Organisatieadvies, 2013:a, NIC, 2013:b).

INTERMEZZO 1: RIJKSWATERSTAAT

Rijkswaterstaat was established in 1798 to realize a suitable division of water flows in the river Rhine. The integral approach for the caretaking of water and infrastructure of the Netherlands was recognized. Today Rijkswaterstaat takes care of the national road network, the national water infrastructure, and the large national bodies of water (Rijkswaterstaat, 2008).

Rijkswaterstaat is an executive organ of the Ministry of Infrastructure and Environment and its main responsibilities are the maintenance and development of national roads and water infrastructure. To fulfill these main responsibilities Rijkswaterstaat procures projects and services with a total value of up to 4 billion Euros each year (www.rijkswaterstaat.nl, 2013:a).

This study will be located at the center for infrastructure service which has two main branches; major projects and maintenance and programs, projects, and maintenance. This study will be conducted at major projects and maintenance. Major projects and maintenance realizes large infrastructural construction and maintenance projects and has various bodies of expertise to support these developments. They were a key player in realizing the largest Best Value pilot ever (Spoedaanpak, value: around halve a billion euro) and are running follow-up pilots with the help of a best value core team. Because of this expertise and the focus of this study the department of major projects and maintenance is considered to be an ideal location for carrying out the study.

- Carrying out work instead of working out the proposal (planning) (Binsbergen, 2013).

Furthermore do vendors indicate that they have to do significant (time) investments without certainty on a contract (Binsbergen, 2013, deBreedte Organisatieadvies, 2013:b, NIC, 2013:a). This is a notable observation since an important objective of Best Value procurement is to minimize the transactions costs and efforts of all parties involved (Kashiwagi, 2013:b).

Based on these reports it is not clear what adaptations could be made to the clarification phase to realize a phase that is concluded within time, with the efforts envisioned, and according to the Best Value approach. Because the clarification phase is not developed far enough in available Best Value theory it is impossible to tap into that source to create results in practice. It is even advised that for further improvements on aspects concerning transactions costs and transaction time a reconsideration of the implementation of the Best Value approach is needed (deBreedte Organisatieadvies, 2013:a, deBreedte Organisatieadvies, 2013:b).

The clarification phase is selected as object of study because it is the most important phase of the Best Value approach and because of the observed problems during its implementation. The gap in theory and practice has been selected as knowledge gap and are the focal point of research for this study.

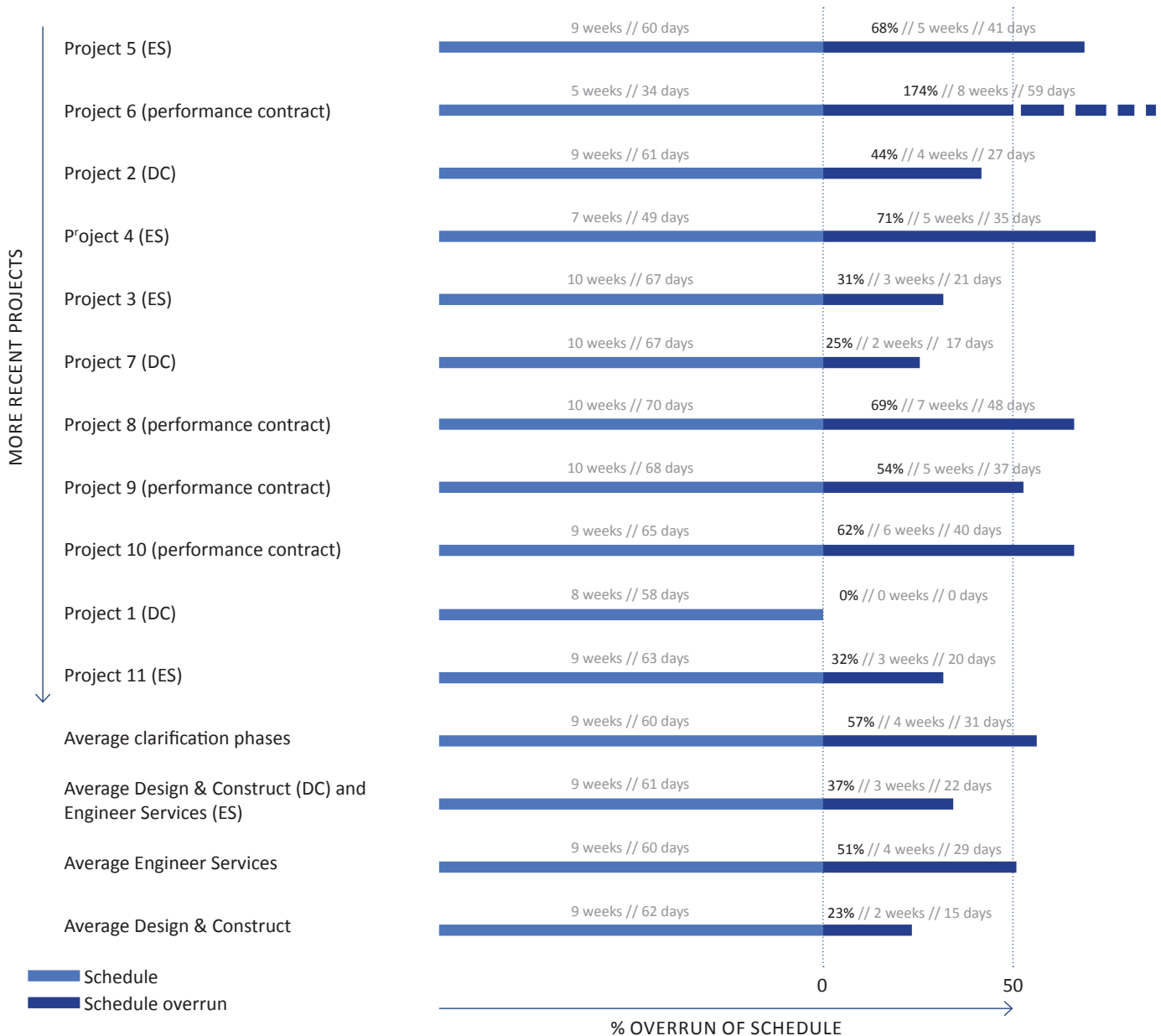


Figure 1.1: duration of the clarification phase, planning versus actual duration (based on project documentation).

1.6 PROBLEM STATEMENT

As appointed in the knowledge gap, the use of the clarification phase of Best Value procurement at Rijkswaterstaat lead to significant crossing of the planning. From leading literature in the Dutch and international context of Best Value procurement is clear that this phase is “the least developed part of best-value procurement” and it is not clear from literature how to develop and implement this phase at an organization such as Rijkswaterstaat (Rijt & Santema, 2013, p.132, Kashiwagi, 2013:b p.79).

Based on the knowledge gap and the significance of the study the following problem statement has been formulated:

The clarification phase of the Best Value approach is not developed sufficiently to realize successful implementation at Rijkswaterstaat and attempts to use the clarification phase at Rijkswaterstaat did not lead to the envisioned results of the clarification phase within the planned time.

It is clear that the problem statement relates to two main issues. The first problem relates to the lack of actual knowledge on the clarification phase of Best Value procurement in available literature. This lack of knowledge is reflected in the second problem, lacking implementation of the clarification phase at Rijkswaterstaat and not realizing the results envisioned by Best Value procurement within time and in a satisfying manner.

1.7 RESEARCH QUESTIONS

Based on the introduced main problem, various research questions are formulated below to guide the study to develop a model that can realize a more effective and efficient clarification phase of the Best Value approach at Rijkswaterstaat. The following main research question has been formulated to guide the study during answering the underlying sub-research questions.

What model for the clarification phase of the Best Value approach, based on experiences from preliminary application during Best Value projects of Rijkswaterstaat, theory concerned with the clarification phase of the Best Value approach, and literature concerned with theories of this type of project phase, can be used for infrastructural projects at Rijkswaterstaat to enhance its performance?

Just as in the problem statement, the main research questions include a theoretical and a more practical part. The practical side focuses on the development of a model for the clarification phase at Rijkswaterstaat. On the other hand, the theoretical part plays a role to develop the theoretical framework which helps to reflect on and develop the clarification phase further. Also in the sub-research question this division is recognizable.

1. *What is the clarification phase and what makes it successful according to the Best Value theory?*

The first research question helps to identify the background of the study, the Best Value approach. This background is then further explored for the clarification phase to understand the process, envisioned results and products better as a foundation for the development of the theoretical framework in the next question. The goal is to understand the Best Value approach with a focus on the clarification phase.

2. *What selection of relevant theoretical perspectives could be used for the theoretical framework underlying the clarification phase of the Best Value approach?*

This research question focuses on identification of a theoretical base beyond the traditional concepts underlying the clarification phase of the Best Value approach (e.g. IMT and PIPS). Based on insights developed for the first research question theories will be identified fitting in the concept of Best Value and with the clarification phase. The goal is to use a selection of key theories to develop a theoretical framework to analyze the selected Best Value cases at Rijkswaterstaat.

3. *How did Rijkswaterstaat and their vendors implement the clarification phase of the Best Value approach and what were the results?*

The third research question focuses on the practical side of the study; the case studies. With the theoretical framework in mind the clarification phase of a selection of Best Value projects will be analyzed. The goal is that the analysis of this phase results in insights in the problems behind the significant exceeding of the planning in the cases and to find the core aspects which need to be adjusted. A specific focus on the vendors is introduced to appoint their role in the clarification phase, the vendor is in the lead and therefore shapes the clarification phase. The perspective of Rijkswaterstaat is of course included as well to gain an intrinsic understanding of the implementation. Together with the first two research questions a basis if further developed on which the model will be based.

4. *What model for developing the clarification phase of the Best Value approach can be used?*

Based on the insights in both theory and practice the model will be developed to make the implementation of the clarification phase more effective and efficient. The preconditions and, afterwards, the model will be based on the theory of Best Value, the theoretical framework, and the case studies. The preconditions are introduced to help structure the process model formulation.

5. *What are the expectations concerning this model about its applicability, effectiveness, and efficiency of the clarification phase of the Best Value approach?*

The outlines of the model with recommendations will be validated with the help of a survey among persons who were involved during the clarification phases of the various Best Value project of Rijkswaterstaat. Central will be to identify if it is likely that the model will help to enhance the effectiveness and efficiency of the clarification phase. Based on this feedback, adaptations to the model are possible. The final model which is developed to enhance the performance of the clarification phase can then be submitted as a recommendation to Rijkswaterstaat.

1.8 PURPOSE OF THE STUDY

This study will focus on developing a model for the clarification phase of the Best Value approach for Rijkswaterstaat to enhance the performance of this phase. Evaluating how the clarification phase of Best Value procurement has been used during past projects at Rijkswaterstaat, and how it could be refined and implemented further are central topics. This means that the envisioned model should enable Rijkswaterstaat to use the clarification phase more effective and efficient (in time, budget, specification, and with the desired result) (Fearne & Fowler, 2006).

It is expected that the results will be valuable for Rijkswaterstaat and its vendors since developing the clarification phase will contribute to better utilization of the benefits of the Best Value procurement method. Because the clarification phase is seen as the least developed phase of Best Value procurement the results of the study could contribute to insights of Best Value procurement in general as well.

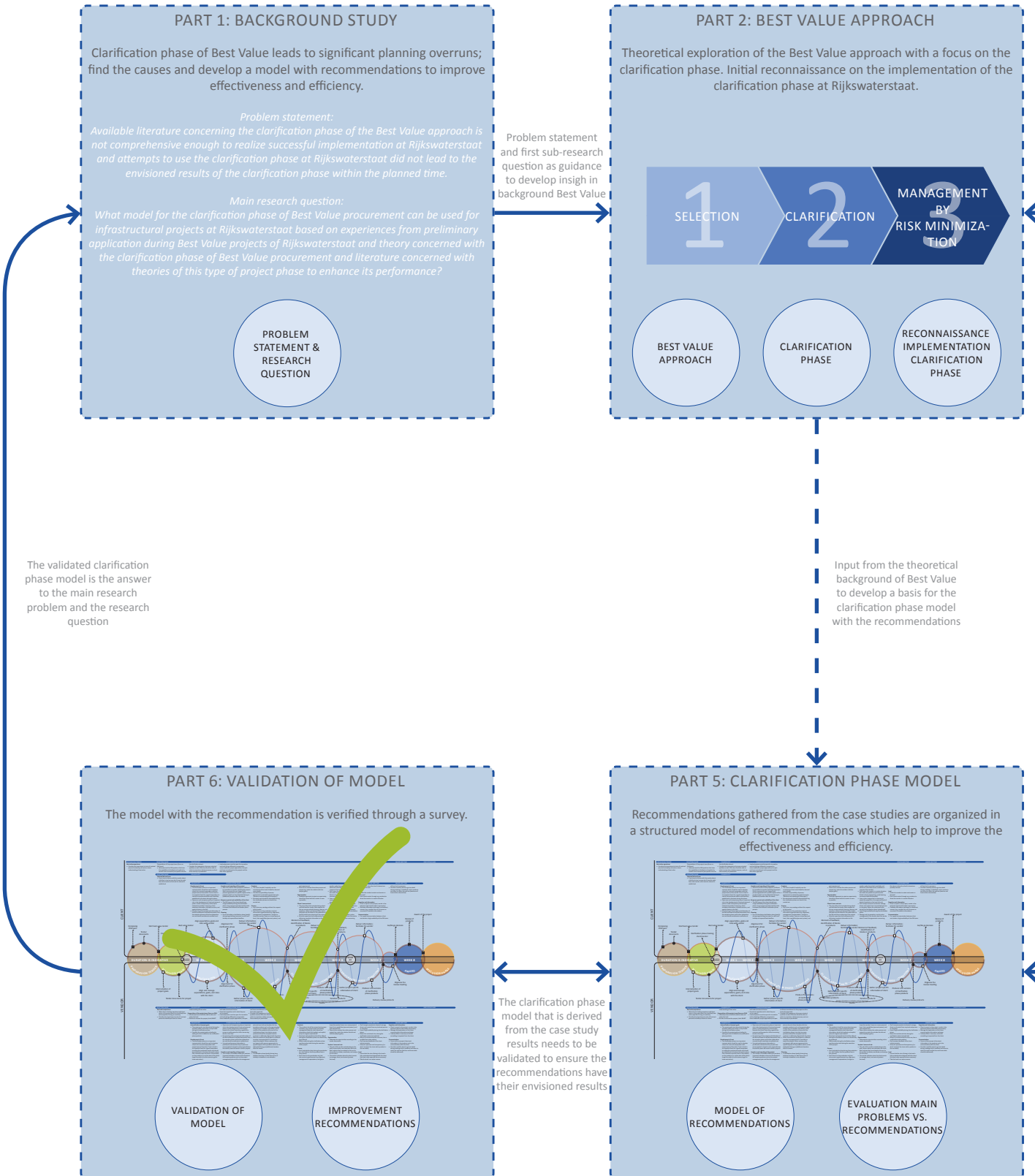
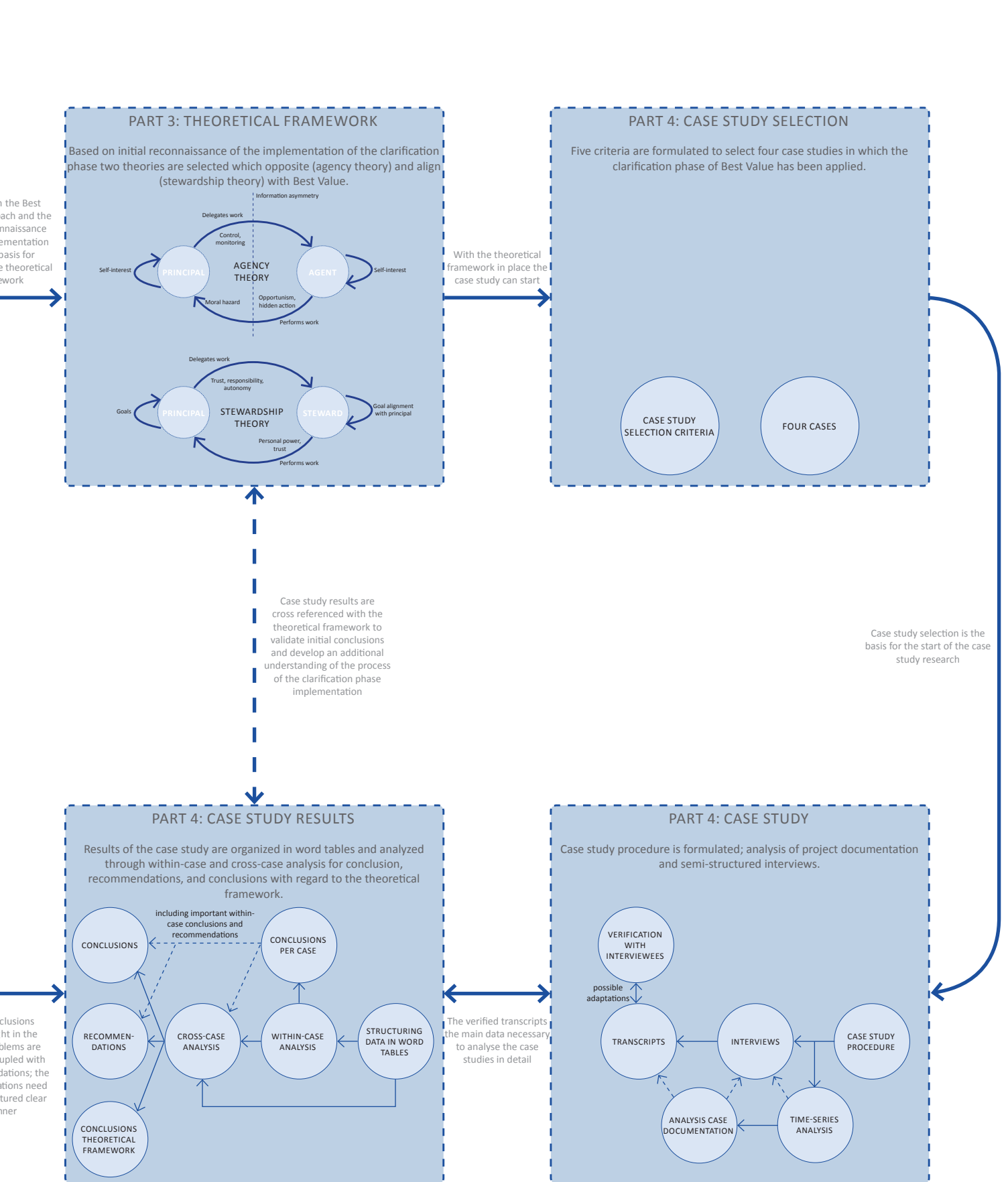


Figure 1.2: the structure of the report with various parts for which the research method has been developed.

1.9 RESEARCH STRUCTURE

In Figure 1.2 the structure of the research is depicted. This structure is aligned with the structure of the study and is the results of the demand in terms of necessary information, logical research structure towards for example cases, and the forming and validation of the model. The main connections between various parts of the research are appointed in the figure. The report is structured according to the depicted structure below.



1.10 METHOD

For this study an overview of the used method is introduced below. This method is aligned with the structure of the study depicted in Figure 1.2. In the sections below the various parts are introduced and explained further regarding the method used.

PART 1: BACKGROUND STUDY

Before the study started the background of the study was already prepared to develop the proposal. Already in this phase initial insights were gathered to gain insight in the main problem and the Best Value approach. The proposal is the foundation of the study and will give guidance during the study.

Methods and tools

Writing the proposal with its various aspects such as the definition of the problem and the formulation of the research questions needed initial insight in the topics at hand. A content analysis was used to gain sufficient insight in the Best Value approach and the clarification phase to write the proposal. A content analysis may be described as a detailed and systematic examination of the content of a particular body of materials (Leedy & Ormrod, 2010).

A main method for this phase was the literature study. A literature study was used to identify and evaluate relevant bodies of literature on their validity and usability to develop a sound problem statement, research gap, and research questions.

Data collection and analysis

Literature was selected to be the main source of data in this phase of the study. Literature was used according to its relevance for the chosen topic, which related to Best Value procurement. Relevant literature was analyzed to locate the knowledge gap and to generate sufficient background to define the problems and support the research questions.

Validation of data

Triangulation was used to determine the validity of the data gathered. Comparing main bodies of literature covering more or less identical issues are the main method to achieve the validation of the data.

Results of part 1

A research proposal for the main study was the product of the first phase.

PART 2: BEST VALUE APPROACH AND THE CLARIFICATION PHASE

During the writing of the proposal initial insights of in the Best Value approach and the clarification phase were gathered. In this first phase of the study this basis is further elaborated upon to establish a complete image of the theory under Best Value with a specific focus on the clarification phase (research question 1).

Methods and tools

The main method for this part will be a content analysis. The main manner to perform this content analysis is the use of a literature study with the focus on relevant literature concerned with Best Value and thus the clarification phase.

Data collection and analysis

The data will be collected with the appointed tools used in the method; primarily through literature study. The analysis will result in the basis for further theoretical research for the theoretical framework with insights in the clarification phase of Best Value procurement.

Validation of data

Insights gathered in the collected literature will be validated through comparison between sources. Initial insights already suggest alignment between various sources (e.g. Kashiwagi and Rijt & Santema) considering the Best Value approach and the clarification phase. Further insights will be triangulated in similar manner.

Results of part 2

The result of the first phase is insights in the Best Value approach. Underlying theories and further understanding the clarification phase will serve as reference point for the development of the theoretical framework and are the basis on which theories are selected to analyze the cases.

PART 3: THEORETICAL FRAMEWORK

The third part is concerned with the development of the theoretical framework (research question 2). This theoretical framework is based on theories related to the concept Best Value and specifically to the clarification phase. Already available theoretical background of the clarification phase itself will be central in the formulation of the theoretical framework (research question 1).

Methods and tools

The main method for this part of the second phase will be a content analysis. The main manner to perform this content analysis is with the use of a literature study with the focus on relevant literature concerned with theories to construct the framework for the clarification phase. A selection of main theories which are likely to reap the best results will be used to develop the theoretical framework.

Data collection and analysis

Data will be collected with the appointed tools used in the method; primarily through literature study. The analysis will result in a theoretical framework with insights in the clarification phase of Best Value procurement and theories from literature.

Validation of data

Validation in this phase is necessary for the data that will be collected to ensure accuracy of the framework and the input for the next phase. Triangulation of data will be the main way of realizing a validated theoretical framework.

Results of part 3

The result of this part is the theoretical framework. The main knowledge and theories are in place to have in-depth insight in the underlying notions of Best Value procurement and relevant selected theories. The result is the theoretical framework that will be used for the analysis of the case studies and the development of the clarification phase model.

PART 4: CASE STUDY

This phase is mainly concerned with the analysis of the clarification phase during Best Value projects at Rijkswaterstaat with the help of the theoretical framework (research question 3).

Methods and tools

An important method will be the use of case studies. According to Yin (Yin, 2009, p.18) a case study is “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”.

The main tools for the case studies will be the content analysis and semi-structured interviews to analyze the selected projects. The content analysis will be mainly concerned with project documentation of the selected projects and literature concerned with the background of the implementation and envisioned use of the clarification phase at Rijkswaterstaat. Semi-structured interviews with involved experts in the projects at Rijkswaterstaat are used to validate findings, gain additional insight in the clarification phase of the projects and/or fill in missing elements.

Data collection and analysis

For the collection of data for the various cases a protocol with procedures will be used to establish more consistency between the gathered information per case and the consequent analysis. The protocol will help to increase the reliability of case study research and give guidance during the data collection (Yin, 2009). The protocol will cover on the one hand the content analysis and help to develop consistency in the semi-structured interviews also with the help the theoretical framework.

Multiple criteria are formulated to select four cases. According to Yin two or three cases, thus a multiple case study is better since it reduces the dependency and vulnerability on data of one single case (Yin, 2009). Above this number there is no fixed number that can be considered to be ideal, but a range of 4 to a maximum of 10 is advised by Eisenhardt (Eisenhardt, 1989:a). Furthermore a multiple case study can enhance the reliability of the (generalized) results.

It is important to analyze the collected data carefully because it is central in the building of the model from the case studies (Eisenhardt, 1989:a). For the analysis of data possibly a within-case analysis will be used to analyze the data for each of the cases itself before patterns are generalized between cases with the use of a cross-case analysis (Eisenhardt, 1989:a, Yin, 2009, Dul & Hak, 2008).

Validation of data

Validation of data will mainly be done through triangulation. This triangulation shall partly be made possible by the use of multiple data collection methods; a content analysis and interviews (Eisenhardt, 1989:a). Replication logic plays an important role when using multiple cases; multiple cases help to establish, confirm, and enhance the validity of relationships (Eisenhardt, 1989:a, Yin, 2009). Collected data during interviews will be verified with the interviewees before further actions with the materials are undertaken.

Results of part 4

The results of this part will be an analysis of the cases itself and generalized findings between these cases. Findings can for example be concerned with reasons why the clarification phase was or was not successful and results may consist of possible recommendations gathered from project documentation and interviews.

PART 5: DEVELOPMENT OF THE CLARIFICATION PHASE MODEL

The fifth part is concerned with combining the result of the case studies into a model with recommendations for the clarification phase (research question 4). This phase will focus on assembling the clarification phase model on the basis of the finding in the case studies and the theoretical framework. The results will be used to focus on the development of the model for a more efficient and effective clarification phase.

Methods and tools

Based on the findings the model will be developed. No specific methods or tools are selected.

Data collection and analysis

The focus of this phase will be on the processing of the data collected in the second part to develop a clarification phase model for Best Value procurement at Rijkswaterstaat. New information is generated in the form of the model that is based on the data of previous phases.

Validation of data

Data used for this phase is validated in previous phases to ensure the basis used in this phase is accurate. The developed approach will be validated internally with the data of the previous phases and especially against the background of the Best Value approach. The next phase is concerned with a basic validation of the model.

Results of part 5

The results of this phase will be a model for the clarification phase of Best Value procurement based on the input from the previous phases. Feedback from the last phase can lead to changes of the model to optimize it further.

PART 6: MODEL VERIFICATION

During the study the model with recommendations will be verified with project teams of Rijkswaterstaat and vendors who have applied the clarification phase during a Best Value project. During this verification the main problems are verified along with some of the main recommendations made. The results of this survey will verify if the results and recommendations are correct and possible adaptation can be made.

Method and tools

The verification of the model of recommendations and the corresponding problems is realized through a member check with Best Value experts. Besides the member check will members of the project teams be invited to fill in the survey to make additional verification possible.

Validation of data

The validation of the model is realized through the use of a member check and to invite additional members who have experience with the clarification phase to gain feedback on the main problems and the model with the recommendations. Efforts are made to use member checking in the Best Value team of Rijkswaterstaat and beyond (Best Value project members) to determine if these participants feel that the presented model is accurate and that it is expected that it enhance the performance of the clarification phase at Rijkswaterstaat (Creswell, 2009).

Results of part 6

The result of this phase will be a further refinement of the clarification phase model which serves as a recommendation towards Rijkswaterstaat to improve the performance clarification phase.

STRENGTHS AND WEAKNESSES OF THE PROPOSED METHOD

The main parts of the method are concerned with a content analysis with the help of literature studies and case studies through analysis of project documentation and through semi-structured interviews. In this section main considerations about strengths and weaknesses are considered.

Content analysis: literature study

The proposed use of literature studies for various phases of the study can have beneficial influences in terms of gaining rapid insights in needed topics and the high grade of validity through the use of peer reviewed materials. A disadvantage is that the used materials can be produced to originally serve other purposes, a dependence on what is available, and a risk on a one-sided view on the topics at hand (Verschuren & Doorewaard, 2005).

Case study

Because of the practice oriented focus of this study through the development of the clarification phase model there are some important advantages. According to Verschuren & Doorewaard the following aspects might add to the value of the proposed method. First, case studies offer the opportunity to get an integral perspective on the clarification phase and the possible problems underlying the significant time overruns. Secondly the case study offer flexibility to adapt to changes in the research setting such as the development of the theoretical framework or findings during in the project documentation. Thirdly, the acceptance of the developed model at Rijkswaterstaat might be higher because the model is based on conclusions derived from project settings (Verschuren & Doorewaard, 2005).

As already appointed has the case study strategy also disadvantages. An important disadvantage is the possibility to question the external validity of the findings. Using only a few cases can lead to results which may not apply in a more general model (Verschuren & Doorewaard, 2005). The proposed use of more cases in the method will help to reduce this factor.

Validation: survey

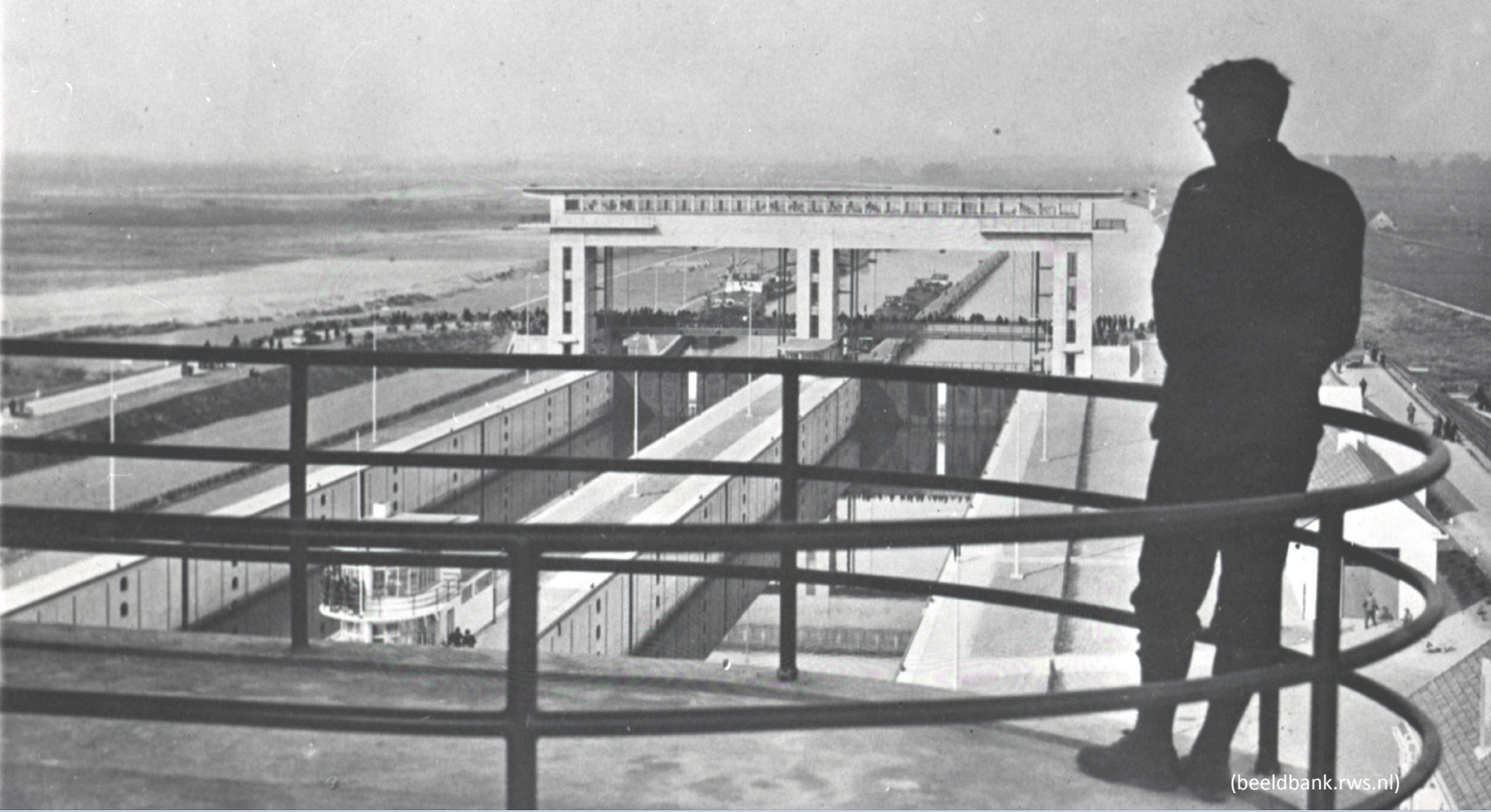
The proposed survey for the validation of the model of recommendations can raise various problems. A major disadvantage is that the questions can be misinterpreted due to lacking willingness or due to impersonality (Singh, 2006). Another problem that can arise is the selection of the sample which has to be large enough to generate a representative group of respondents.

Major advantages of a survey are the relative easy to cover a large group of persons against a low amount of money and effort (Singh, 2006). Another major advantage is that the problems and the recommendations gain value as they are validated through a larger group. This means that when the findings are validated they can become more representative.

1.11 GUIDE TO THE READER

In this first chapter of the study the background of the study was introduced along with aspects like the problem statement, research questions and the purpose of the study. In Chapter 2 the Best Value approach is further introduced with a special focus on the clarification phase. In Chapter 3 an initial reconnaissance of the implementation of the clarification phase at Rijkswaterstaat through the analysis of various projects through available project evaluations is presented. Chapter 4 introduces the theoretical framework which includes the agency theory and the stewardship theory as two theories to facilitate analysis of the case studies. The case-studies are presented in Chapter 5 were first the case study design is presented followed by the case studies themselves. The results of the case studies are used in Chapter 6 to develop a model of recommendations for the clarification phase. In Chapter 7 is this model of recommendations validated through a survey with Best Value experts and participants which have Best Value experience at project of Rijkswaterstaat. Chapter 8 is the final chapter in which the conclusion, discussion and leads for further research are presented. In the appendices a glossary is presented followed by the references which were used during this project. The attachment encloses elements such as the description of the cases and the within-case analysis.

Throughout this report Intermezzo's are presented to give background and additional information on certain topics.



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02 / BEST VALUE

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2.1 INTRODUCTION

In this chapter the first research question will be answered which aims to gain more insight in the Best Value approach and the clarification phase.

1. *What is the clarification phase and what makes it successful according to the Best Value theory?*

In the next sections first Best Value is discussed in relation to a more price based approach to procurement (2.2). After that comparison the focus will shift towards the theories underlying Best Value procurement. The theories introduced are the Information Measurement Theory and Kashiwagi Solution Model (2.3). After the introduction of these underlying principles Best Value is discussed in more detail with a focus on the clarification phase (2.4). By discussing the clarification phase in the context of Best Value the connection and the interrelation with the first and the third phase will become clear. Finally the factors that contribute to the success of Best Value procurement are introduced and it will become clear which factors make the Best Value approach unique compared to other procurement methods (2.5). This chapter is wrapped up by the conclusions regarding the first research question (2.6).

2.2 PRICE BASED VERSUS VALUE BASED

To understand the difference between the more price oriented procurement approaches and the value based approach a short comparison is introduced. As a basis for this comparison a four quadrants scheme is presented in Table 2.1. As introduced in the section “Past performance of the construction industry” in Chapter 1 the primary focus has long been selecting the lowest priced tender. For this comparison the focus is on the high competition since that is still a main focus that procurement authorities try to establish.

Table 2.1: construction industry structure in four quadrants (after Kashiwagi 2013:a).

Performance	High	III. NEGOTIATED-BID <ul style="list-style-type: none"> Minimized competition Long term Relationship based Vendor selected based on performance 	II. VALUE BASED (VENDOR CONTROLLED) <ul style="list-style-type: none"> Buyer selects based on price and performance Vendor uses schedule, risk management, and quality control to track deviations Buyer practices quality assurance Win-win Expertise and professionalism
	Low	IV. UNSTABLE MARKET <ul style="list-style-type: none"> No identification of performance. No competitive advantage, contractors with less performance can get paid more. Highly political environment. There is no real competition, performers have a difficult time competing. 	I. PRICE BASED (OWNER CONTROLLED) <ul style="list-style-type: none"> Wrong person talking Management, direction, and control No transparency Win-lose Low vendor profit
		Low	High

According to Kashiwagi the price based and high competitive quadrant is characterized by the following aspects (Kashiwagi, 2013:a):

- The wrong party talks, the client is telling the vendor what to do while the vendor is the expert and has the knowledge to realize the product or service. The client is making the decisions. Minimum standards are introduced to guarantee a certain minimum level of quality. This results in increasing importance of price, thickening of contracts, and reduced focus on quality (as represented in Figure 2.1).
- The buyer uses management, direct, and control over the vendor to control the project to let the vendor do what the client wants. The vendor’s expertise becomes less valuable due to the attitude of the buyer. As a result the vendor becomes more reactive because the client will control and check the work.
- Transparency is low due to increased demand of information exchange to facilitate the management, direct and control attitude of the client. The increased demand for information results in opaque information flows due to the focus on quantity. Dominant information is not created and not used.
- In the best situation a win-lose situation is created when one of the parties wins and the other consequently loses. Either the client gets a cheap product or service (and the vendor gets high losses) or the supplier gets his profits (and the client pays too much).
- In general the profits of the vendor will be low because of the main focus on price. The buyer ‘forces’ the vendors to bid lower to acquire the project because the vendors are unable to profile themselves in another way. Transaction costs rise due to the use characteristics such as management, direct, and control, enhanced importance of the contracts, and legal issues due to focus on price selection.

Due to the negative effects of price based procurement the demand for selecting vendors that offer more value increased during the last years. This will be illustrated by the past performance section later in this study. Negotiations and dialogue during the procurement for a service or product is introduced to enhance the performance of the vendor (negotiated-bid). This strategy however reduces the focus on the competition and is likely to increase the costs of the product or service because it is focusing on a deal. As an alternative the value based environment is introduced which is characterized by another set of elements than the price based (Kashiwagi, 2013:b):

- The client selects the vendor based on both price and performance. The vendor is in the lead and tells the client what they are going to do. The client has the intent and the vendor is due to its expertise and control able to identify the exact scope of the project.
- The vendor uses a schedule, risk management, and quality control to monitor the project and signal deviations from the initial intent and the project goals. The vendor uses risk mitigation as a main tool to manage risks beyond their control.
- Quality control is central during executing of the project by the vendor, the client does quality assurance. Transparency is enhanced through less management, direction, and control and focus on exchange of dominant information between vendor and client.

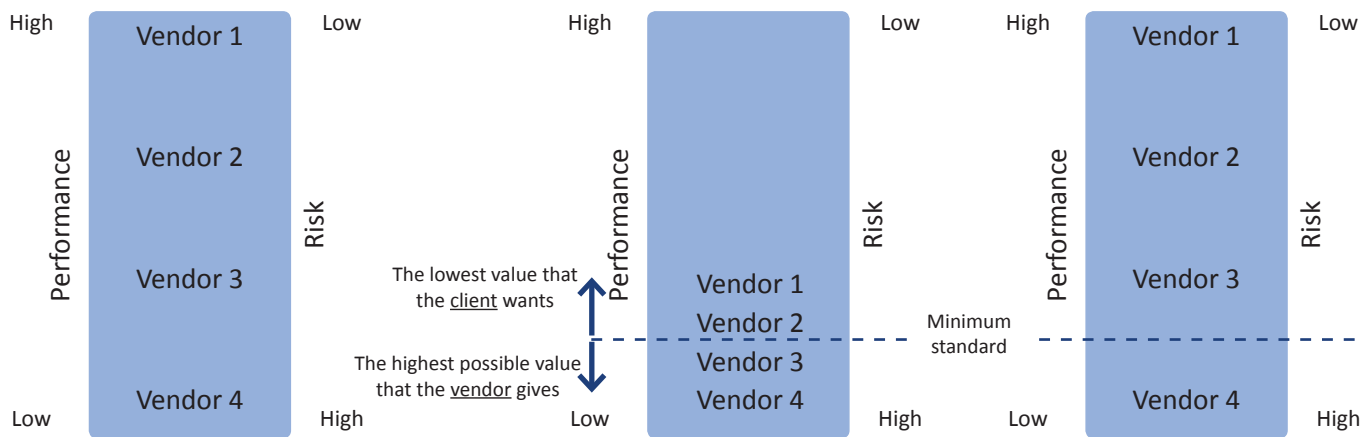


Figure 2.1: the effects of minimum standards and focus on lowest price on the performance and the amount of risk of the vendor’s proposals (after Kashiwagi, 2013:a). On the left the performance of vendors, the right two indicate the introduction on minimum standards in combination with selection based on lowest price (middle; lowest bid procurement) and in combination with value based selection (right; Best Value, selection on both price and quality).

- A win-win environment is created. The project will be realized with a high value at the lowest cost which means high value for the client and sound profit for the vendor. Furthermore does the vendor enhance its expertise and creates high rated past performance.
- Expertise and professionalism are central during the project. The client relies upon the expertise and professional attitude of the selected Best Value vendor.

2.3 INFORMATION MEASUREMENT THEORY & KASHIWAGI SOLUTION MODEL

Kashiwagi developed the Information Measurement Theory (IMT) and the Kashiwagi Solution Model (KSM) as important theoretical foundations for the Performance Information Procurement System (PIPS) and the Performance Information Risk Management (PIRM) and thus the Best Value philosophy. To understand the background of Best Value better these theoretical foundations are briefly introduced below.

INFORMATION MEASUREMENT THEORY

Information Measurement Theory (IMT) applies the theoretical constraints which have their roots in the information theory to understand the process of understanding information. In the information theory it is identified that all communications are restricted by the constrained delivery speed. Above this constrained delivery speed, transmission of information is not perfect; below the constrained delivery speed is transmission of information possible (Shannon, 1948). These notions played a central role in the development of IMT.

Kashiwagi utilizes the constrained delivery speed of all communications in the IMT. IMT translates the information theory notions in that an “individual who lacks the ability to perceive and the processing speed, creates the misperception that there is a lack of information” (Kashiwagi, 2013:a, p.27). However all information always exists. Following from these suggestions it is made clear that an individual who lack perception or processing speed is constrained by it and unable to see information. This forces the individual to rely on expertise through risky decision making which is based on past experience to develop expectations for the future outcomes at hand. This subjective and personal bias is incomplete and limited, and is presented in the IMT as decision making. Therefore IMT identifies that decision making and the personal bias are the obstacles to understand reality and result in a source of risk (Kashiwagi, 2013:a).

An information-based system is introduced which relies on existing information to eliminate the need for bias that normally is used to fill in the unknown and solve the problem. This is realized through introduction of the concept of dominant information to communicate information more understandable and accurate. Dominant information is formulated as “information that can be understood by almost everyone due to its simplicity and it does not require technical detailed knowledge that only a few may possess” (Kashiwagi, 2013:a p.28). The use of dominant information envisions the minimization of the use of data in favor of the use of dominant information. This shift is proposed to identify the Best Value or best alignment of resource, and to minimize decision making and risk (Kashiwagi, 2013:a).

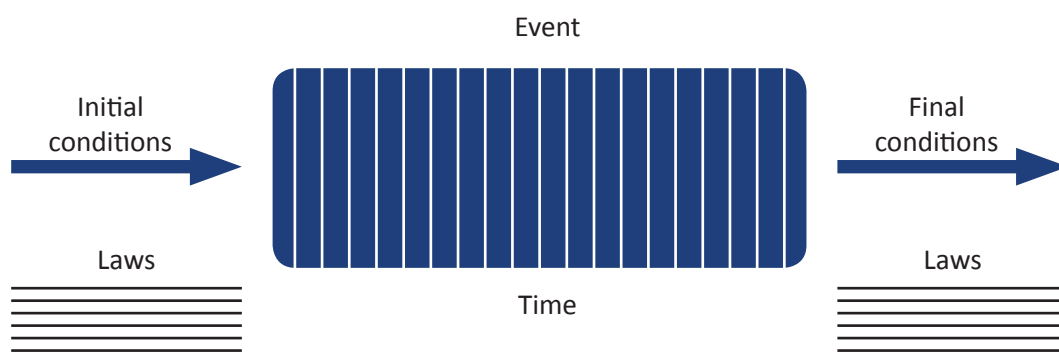


Figure 2.2: an abstract representation of an event (after Kashiwagi, 2013:a).

The use of dominant information and the constrained processing speed of information is the basis for the IMT. Kashiwagi defines IMT as “a deductive, logical, and dominant observation/explanation of an event. It includes the use of relative and related data to identify information that predicts the future outcome of the event” (Kashiwagi, 2013:a, p.28). IMT aims at the reduction of subjective decision making by using dominant information. The use of dominant information is also used to reduce the amount of data required to enhance accurate transformation of information.

IMT tries to identify the relation between information usage, processing speed, and performance. By identifying a structure (see the Kashiwagi Solution Model) that minimizes the requirements of decision making, direction, and control of other entities. IMT is furthermore introduced to optimize processes by identifying and removing entities which increase risk and do not add value (Kashiwagi, 2013:a).

To further understand the IMT two central concepts are presented. The first concept is what we observe as natural laws that define changes in the physical environment over time. All natural laws exist at all times and at all locations. This does not mean that all natural laws are discovered or understood correctly. Information is seen as the accurate perception of the laws and their impact on the environmental conditions (Kashiwagi, 2013:a).

The second concept to further understand the IMT is called the event. An event is seen as “anything that happens which takes time” (Kashiwagi, 2013:a p.29). An abstract representation of an event is depicted in Figure 2.2 and is seen as something that has initial conditions, changing conditions during its occurrence, and the final conditions at the end of the event. Because the initial conditions and natural laws are always constant the event will have only one outcome. However, various individuals have different levels of perception and may therefore see the initial conditions differently and perceive the various outcomes. The more accurate the initial conditions are perceived, the more accurate the final outcomes can be described (Kashiwagi, 2013:a).

KASHIWAGI SOLUTION MODEL

The Kashiwagi Solution Model (KSM) uses the principles of the IMT. It concludes that each individual exists in an environment with all information, but nobody is able to accurately perceive everything. The cycle of learning (Figure 2.3) is introduced to understand how perception changes and how the change rate can be used to predict future behavior. Individuals have to perceive, process, understand, and apply information that was not perceived earlier. Application of the new information leads to change and a change of perception of more information. The more cycles of the learning cycle are experienced the faster the individual can go through the cycles. Therefore the higher the processing speed the higher the changing rate and capabilities to understand and implement new concepts (Kashiwagi, 2013:a).

To understand these differences in capacity for change Kashiwagi introduces a figure to plot the change rate in time versus perception of information. In Figure 2.4 two contrasting individual are presented to further develop KSM. Type A is a very perceptive person which uses more information, is good at applying new concepts, and changes the fastest. Compared to this, is Type C the slowest possible to give a contrast between two extremes and explain the KSM. KSMs are mechanism where dominance or radical extremes are used to minimize decision making and exploratory research (Kashiwagi, 2013:a).

The concept of the rate of change is translated in KSM figure presented on the right side of Figure 2.4. The left side of the model represents the dominant characteristics of the type A person and the right side of the model represents the dominant characteristics of the type C person. These two parts form the main components of KSM. As an example the model is used to appoint the differences between the use of information and no information and consequently the change between making no decision and making decision (Figure 2.5). Following from this, the persons who have more information about the initial conditions of an event are better able to predict with more accuracy the future outcome of that event. As a result they are better able to allocate resources to meet the more accurate expectations and are therefore more effective and efficient (Kashiwagi, 2013:a).

An important result of identifying these extremes is that right sided individuals have the characteristics to control people or to force people to do something that they may not be capable of. Left sided persons will align people based on their capabilities to facilitate these people instead of dominate and control them (Kashiwagi, 2013:a).

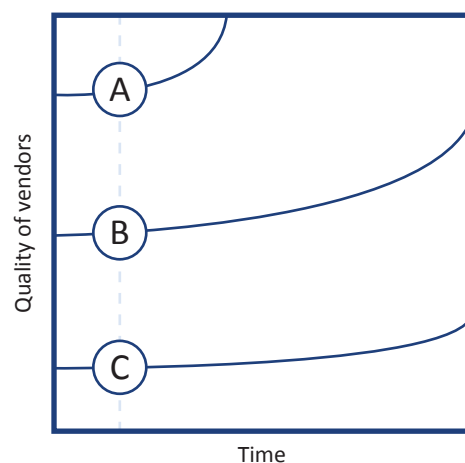
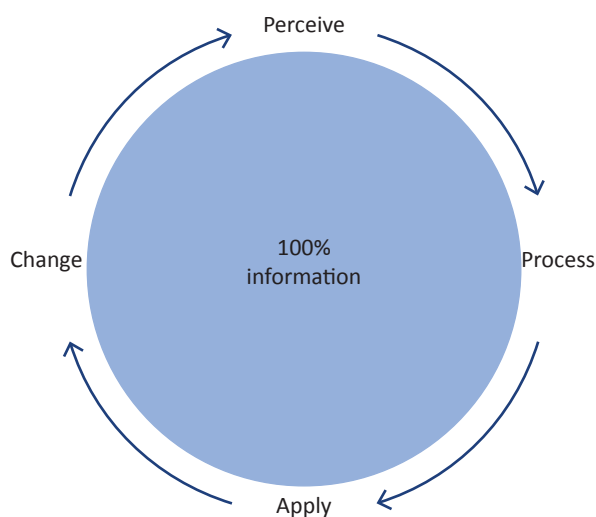


Figure 2.3: the cycle of learning (after Kashiwagi, 2013:a).

Figure 2.4: the rate of change and examples of KSMs (after Kashiwagi, 2013:a).

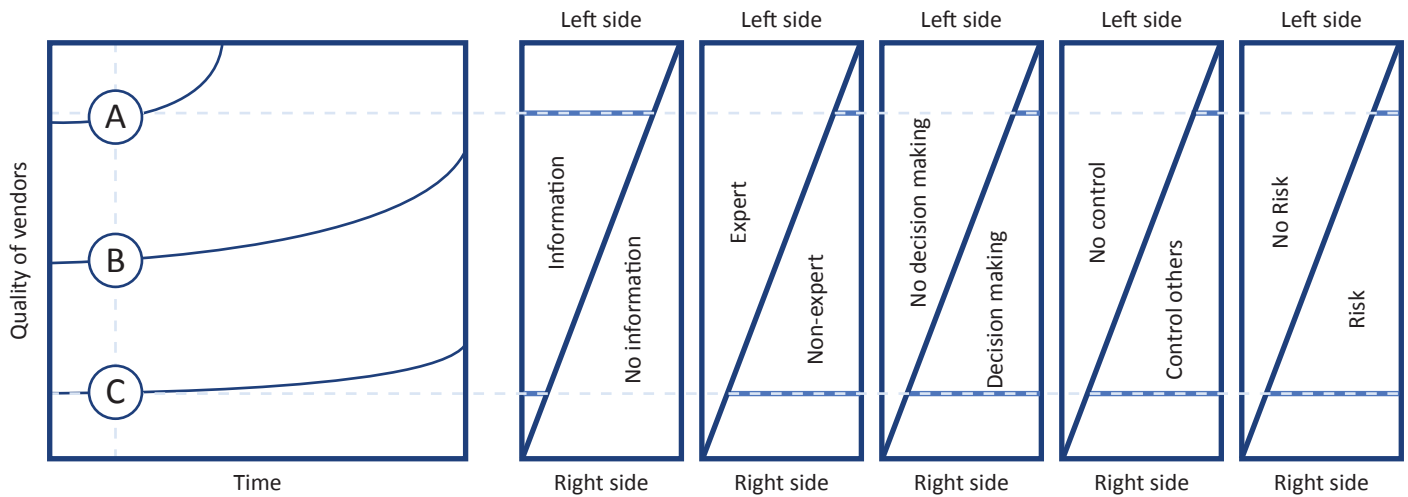


Figure 2.5: KSMs to describe the positive relation between the use of information and to identify type A persons (after Kashiwagi, 2013:a).

2.4 BEST VALUE PROCUREMENT

Best Value procurement is a process-, project-, and risk management method which is developed by Dean Kashiwagi and the Performance Based Studies Research Group at the Arizona State University. The development of the model focused on minimizing management, direct and control of expert vendors (Kashiwagi, 2011). Best Value focuses on the selection of the vendor or item which gives the Best Value at the lowest costs. Best Value has its roots in the Information Measurement Theory (IMT) and the Kashiwagi Solution Model (KSM) which sets the pre-conditions for the procurement model. The IMT states that “decision making and bias are the major obstacles to perfectly understand reality and the source of risk” (Kashiwagi, 2013:a p.27). Both IMT and KSM have been introduced in the previous sections.

Best Value is presented in the theoretical framework which is referred to as Performance Information Procurement System (PIPS) / Performance Information Risk Management System (PIRMS) and Best Value Procurement (BVP). Rijt & Santema refer to these concepts as Best Value (Rijt & Santema, 2013). BV PIPS has three phases which are presented in figure 2.6; the selection phase, the clarification phase, and the risk management phase (Kashiwagi, 2013:b).



Figure 2.6: The three phases of the Best Value procurement process (after Kashiwagi, 2013:b).

It is emphasized that the experts should know their job and the integration of the technical expertise is the job of leaders who are capable of aligning experts logically. Experts are able to retain what Kashiwagi calls a ‘30K Foot Level’ over the project, see also figure 2.7 (Kashiwagi, 2013:a, p.114). BV PIPS focuses on minimizing the activity of the supply chain and the process has various objectives, as introduced by Kashiwagi (Kashiwagi, 2013:b p.35):

- Deliver a service or deliverable from one party in a supply chain to another party with the least amount of transactions.
- Minimize effort (use of resources) of all parties.
- Minimize decision making (human thinking and participation) of all parties.
- Minimize direction, management, and control of one participant over another participant, or with participants in the same group.

The method of BV PIPS uses the combination of filters and phases to allocate the Best Value vendor on the project. Van Duren describes the PIPS filters as safeguards that reduce uncertainty and opportunistic behavior, and limits the implications of such behaviors (Duren, 2013). The selected vendor is considered expert in delivering the procured services (the best available). The method is designed to enable non-expert buyers to identify expert vendors. The theory introduces the concept of dominant information which is used in the procurement process to select the Best Value vendor (Kashiwagi, 2013:a, Kashiwagi, 2013:b). As introduced is dominant information defined as information that can be understood by almost everyone due to its simplicity and that it does not require technical and detailed knowledge that only a few may possess (Kashiwagi, 2013).

Important objectives of the Best Value process are to deliver a service or deliverable from a party in a supply chain to another party with the least amount of transactions. Best Value aims to minimize efforts of involved parties, minimize decision making of involved parties, and minimize direction, management, and control of participants over each other (Kashiwagi, 2013:b).

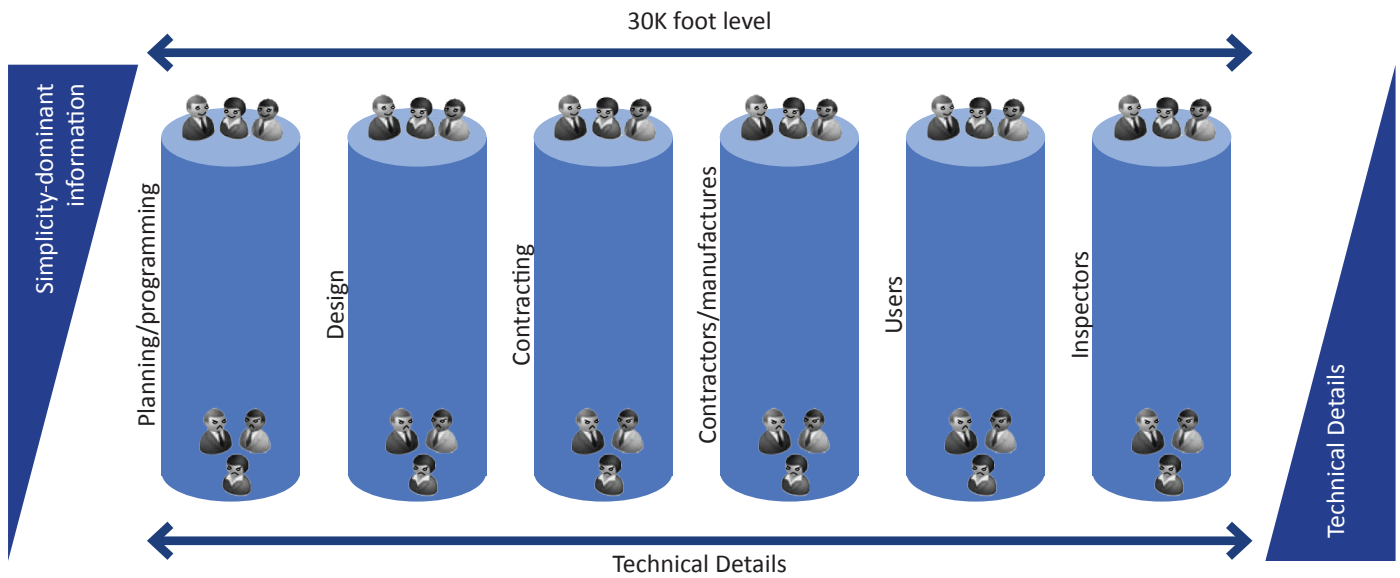


Figure 2.7: the traditional operation in Silo's and the necessity of retaining a 30K foot level to dismantle the silo thinking (silo builders focus on detail and own interests) (after Kashiwagi, 2013:a).

PHASE 1: SELECTION

The first phase is concerned with differentiating the alternative submittals of the vendors based on dominant information. Five filters are used to compose this phase. The filters are past performance information, project capability, interviews, prioritization of vendors, and dominance check. The Best Value selection phase has six different selection criteria to select the Best Value vendor; past performance information, project capability, risk assessment plan, value added, price, and interviews. These selection criteria are closely related to the different filters (Kashiwagi, 2013:b).

For the selection of the Best Value vendor the selection committee sees and rates only the project capability, risk assessment, and value added of the various submittals and the interview with the key personnel. The past performance information and price are kept by the contracting officer who puts it in the selection matrix data (Kashiwagi, 2013:b). In the selection phase the different selection criteria are weighed to ensure that the requirements of project at hand are met. After the interviews are the alternative proposals of the vendors prioritized based on a set of weights and the ratings of the committee. A dominance check is used to ensure the accuracy of the ratings of the committee, accuracy of information of the prioritize Best Value vendor, compliance with the cost rules or competitive range, and a check if all the information justify the prioritization of the vendor (Kashiwagi, 2013:b, Rijt & Santema, 2013).

When the Best Value vendor meets all the requirements of the dominance check they will enter the second phase; the clarification phase. The filters and corresponding products are introduced below.

Filter 1: past performance information. Metrics are used by the vendor's to provide past performance information and is a specific submittal this phase. Past performance information can also indicate the performance and competitive advantage of a certain vendor for the project at hand. It can be used to communicate to the buyer's selection committee (Kashiwagi, 2013:b p.556).

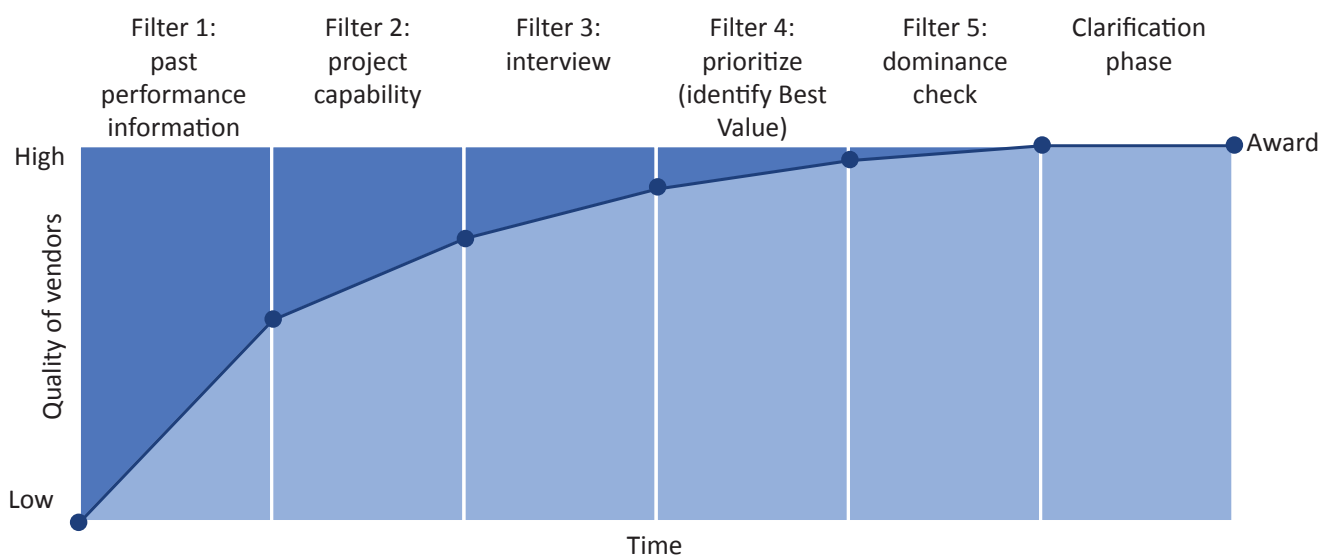


Figure 2.8: the filters of the first phase, the selection phase of BV PIPS; filters 1 and 5 are not operationalized at Rijkswaterstaat (after Kashiwagi, 2013:b) and filter 1 is not included in the latest version of the Best Value approach (Kashiwagi, 2014:a, Kashiwagi, 2014:b).

Past performance information is a submittal which contains dominant information of the performance of the vendor in the past (past performance information is required by Rijkswaterstaat in other submittals and is not a separate filter in the Netherlands). Dominant information is created by the vendor and has to be:

- Non-disputable.
- Verifiable.
- Accurate.
- Measurements in terms of numbers, percentages, or time.
- High performance.
- Shows a high probability of performance of the claim in the future.

The dominant information is reviewed by the selection committee and verified by the procurement officer. According to the dominant information the committee rates the vendor to the degree to which the information indicates if the vendor can meet with the project intentions of the owner. If the dominant information is formulated according to its definition it will bring consensus among the selection committee (Kashiwagi, 2013:b).

Filter 2: project capability. This filter is composed out of five mandatory submittals; the project capability, the risk assessment, the value added, costs, and the schedule (specific for Rijkswaterstaat). The schedule is not used as selection criteria but is a request by Rijkswaterstaat to gain insight in the capabilities of the vendors (Kashiwagi, 2013:b p.557).

Project capability submittals have the objective to appoint that the vendor has the capabilities for the project. The project submittal should have a limited size (two pages indication) to emphasize the most essential claims which are supported by dominant information. It is emphasized that it is of great importance to verify the information supplied by the vendor before the clarification phase is entered (Kashiwagi, 2013:b).

Risk assessment submittals should contain claims concerning how the vendor will proceed keeping the best interest of the client in mind through identifying, mitigating, and minimizing risks that the vendor does not control. The risk submittal should have a limited size (two pages indication) and contain dominant information on past use of the practice and indicate that the vendor is in control because they have done it before.

Value added submittals allow the vendor to improve the delivered product without being penalized for additional cost. The value added submittal is used because costs are used as selection criteria by the client. Value added submittals should contain proposals which add significant value to a project but do not add too much costs and within the maximum project budget. It also should remain within the scope of the buyer's intent. Important is also that any value added concept can be disregarded and the vendor's proposal can still be accepted. They value added concepts are thus selected and awarded separately (Kashiwagi, 2013:b).

Costs are a submittal in which the vendor gives a price for which the project will be realized according to the content of the demand. At Rijkswaterstaat a maximum price (plafondprijs) is formulated which represents the maximum price for which the vendor can make an offer. Vendors can deliver an offer up to this maximum price. Depending on the demand of the client the price will be specified further or not.

Rijkswaterstaat also requires a schedule of the vendors. The schedule is used to gain insight in the intended execution of the project. The schedule should be of limited size (one page indication) and appoint the main outlines of the planning concerning the main activities, milestones, and the critical path. Furthermore does the vendor need to indicate when potential value added concepts have impact on the execution.

Filter 3: interviews. This is the most important filter for identifying the capabilities of the vendors. This filter is used to identify if the selected personnel of the vendor have a clear vision on the project and are able to minimize risks they are not controlling. Experts have a type A characteristic (see also the section concerned with IMT) (Kashiwagi, 2013: p.555).

Interviews are the key moment in which the committee can collect a lot of dominant information to identify the Best Value vendor. Instead of a traditional presentation the interview is different because only key personnel (selection of two or three persons per vendor) is interviewed which will do the actual work, it is an active search for the expert, the interview is non-technical from character (no details and focus on dominant information), and the selection committee tries to find the individual who are able to lead a team (Kashiwagi, 2013:b).

Filter 4: prioritization of vendors. This filter comprises the use of a linear matrix to take the weighted ratings from the selection committee for the identification of the Best Value vendor. (Kashiwagi, 2013: p.557).

Rijkswaterstaat uses the Most Economical Advantageous Tender (MEAT or in Dutch EMVI) to prioritize the vendors. In this prioritization the general division is as following; project capability accounts for 10%, the risk assessment plan 20%, the value added plan 15%, the interviews 30%, and the price 25%. These aspects are expressed in a value in Euros to develop a final value of the proposal. The vendor with the MEAT is selected as Best Value vendor and called the 'intended contractor'.

Filter 5: dominance check. A period for the evaluation team to verify the vendor's submitted ratings and if they are dominant and that the potential Best Value vendor has submitted cost either within the client's budget stipulations or gives justifiable reasons for being outside of the given cost parameters (Kashiwagi, 2013: p.554). This filter is not used in the Netherlands due to legal restrictions.

The objective of the selection phase is to minimize decision making, risk and effort of all participants, and to increase transparency by using dominant information to select the vendor which delivers the Best Value at the lowest cost (Kashiwagi, 2013:b).

PHASE 2: CLARIFICATION PHASE

The second phase is entered with the intended vendor which is considered to offer the Best Value at the lowest cost at that moment in time. During this phase the vendor will clarify their plan (hence the name clarification phase). The objectives of this phase are to clarify the proposal in terms of 'what is in' and 'what is out' of the project scope, identify if the vendor's proposal is acceptable for the buyer, creating a clear definition of the client expectations through identification of areas of risk by the buyer that the vendor has not communicated adequately enough, and creating an offer that is acceptable for the buyer. An important guideline is that the scope of the services and deliverables is not

changed at the full duration of the clarification phase because it is not a period of negotiation.

The result of the phase will be an offer to the client, which includes the scope of the project, a detailed project schedule, a list of risks, a risk management plan, a milestone schedule, and a method for the weekly risk report (Kashiwagi, 2013:b). The offer should be understandable, correct, and the vendor should be able to deliver it at minimal risk. Overall the offer must be considered to be the Best Value, if not the next prioritized Best Value vendor will be asked to enter the clarification period (Kashiwagi, 2013:b).

The process of the clarification phase is further specified in Figure 2.9. Various stages are identified during the clarification phase. Early in the clarification phase the vendor is required to deliver the documents that backup their past performance statements in the tender documents. One of the first element of the clarification phase is that the selected vendor is requested to provide the schedule for the clarification phase. This schedule includes the clarification presentation by the vendor (kick-off), modification of the draft proposal, the coordination, review, and approval of the proposal by the user, and the date for the final presentation of the proposal (Kashiwagi, 2013:b). It is important to note that the content and duration of the clarification phase are the responsibility of the vendor; the vendor is in control.

Usually the clarification phase starts with the kick-off meeting. During the kick-off meeting the vendor starts to explain his plan further. The kick-off is used to present the main aspects and focuses on the most important considerations. Important elements that will be part of the kick-off are the proposal, the project scope, the milestone schedule, the assumptions made, risk management plan, identify responsibilities and expectations of the client, present their weekly risk report format, identification and measurement of key performance information of the client and vendor, and the project planning (Kashiwagi, 2013:b, Rijt & Santema, 2013).

When the client is comfortable with the presented proposal of the vendor the clarification phase begins. This is often the main part of the clarification phase (the entire phase) and the period in which the proposal is further developed and refined as a basis for the next phase. The content of the proposal is formulated and developed further according to the envisioned deliverables, schedules, and costs. The vendor also identifies activities where they are likely to experience situations where there may be a lack of information, where areas of unforeseen or lack of information exists and activities where the vendor has no control over other participants or required activities in the delivery of the product or service. (Kashiwagi, 2013:b).

The delivered proposal is then reviewed by the buyer and possible further expectations can be relayed by the buyer to the vendor. A successful clarification phase is marked by the signing of the contract; the award after which the realization starts (Kashiwagi, 2013:b).

During the clarification phase the vendor will produce various products to clarify the proposal and pre-plan the project. In the previous section the general process is described and in the next section the products are introduced and explained in more detail to understand the purpose of the clarification phase better in terms of envisioned outcomes.

The kick-off represents the first step in the process of the clarification phase. A start is made to clarify the proposal. However the vendor will also present a detailed day-to-day planning for the entire clarification phase to the client. During the kick-off meeting the vendor will present in major outlines their plan of approach towards the third phase, the proposal, and the other identified risks (upon the risks presented in the risk assessment submittal). These presented elements will be clarified further during the clarification phase.

After the kick-off the vendor enters the clarification phase. The products produced during the clarification phase could be considered to be the pre-planning of the project and all the elements needed to deliver successfully. All these aspects together form the content of the proposal. Below these various products are explained further.

The vendor clarifies the project scope. In the project scope the vendor identifies what is in and what is out of the project proposal. Determining the scope of the proposal has direct influence for what the vendor is responsible and more importantly for what not. The scope also determines the cost and the delivered value of the products (Kashiwagi, 2013:b).

Project management plan (PMP) can also contain various elements of the products. The PMP gives more details on the project in terms of description, problems, goals, organization, and demands towards the vendor considering the project. It can further explain aspects such as technical management and management of the project environment during the execution of the project.

Risk Management Plan (RMP) is a living document which is created by the vendor and outlines the potential risks for the project. The PMP includes the mitigation plans for the risks through transparency. During the third phase of the project the PMP is used as a plan that can be updated with new risks and corresponding mitigation plans (Kashiwagi, 2013:b).

Milestone schedule is a summary-level schedule that is used to identify the major schedule milestones. A milestone is seen as a significant point or event in a project (Project Management Institute, 2013). The milestone schedule is part of the WRR to track deviations in time.

Weekly Risk Report (WRR) format is a proposition for a method for a concise report that documents the cost and time deviations of a project, the risks and its sources. The risks described are those that occurred during that week and indicate the cost and impacts on the time (planning). Furthermore does it include the risk management plan that is also developed during this phase and as a consequence the WRR can be updated with new risks or with potential risks when they are discovered (Kashiwagi, 2013:b). Key Performance Indicators (KPI) are developed by the vendor to generate insight and transparency regarding certain selected topics concerned with the project and demonstrate to the client the performance of the contractor. KPI's can be used in, and are often part of the WRR.

Project financial summary contains various aspects related to the costs of the project. Part of the project financial summary are the original project cost, the list of accepted value added options with their implication on the costs of the project, a list of agreed scope changes or additional work, and the schedule of the values (Kashiwagi, 2013:b).

Complete detailed project schedule for the third phase, sometimes this product is referred to as the pre-planning of the project. The pre-planning includes aspects such as the coordination and identification of all risks that cannot be controlled by the vendor. Pre-planning enables

the client and the vendor to coordinate and align expectations before the actual work commences (Kashiwagi, 2013:b).

Project action item checklist of client actions contains all actions required from the client by the vendor. Actions required relate to the planning of the project and the formulated milestones of the project.

The objective of the clarification phase is for the vendor to clarify the scope of work, identify if the vendor’s proposal is acceptable for the client, clarify expectations of the client, and finalize an acceptable offer for the client (Kashiwagi, 2013:b).

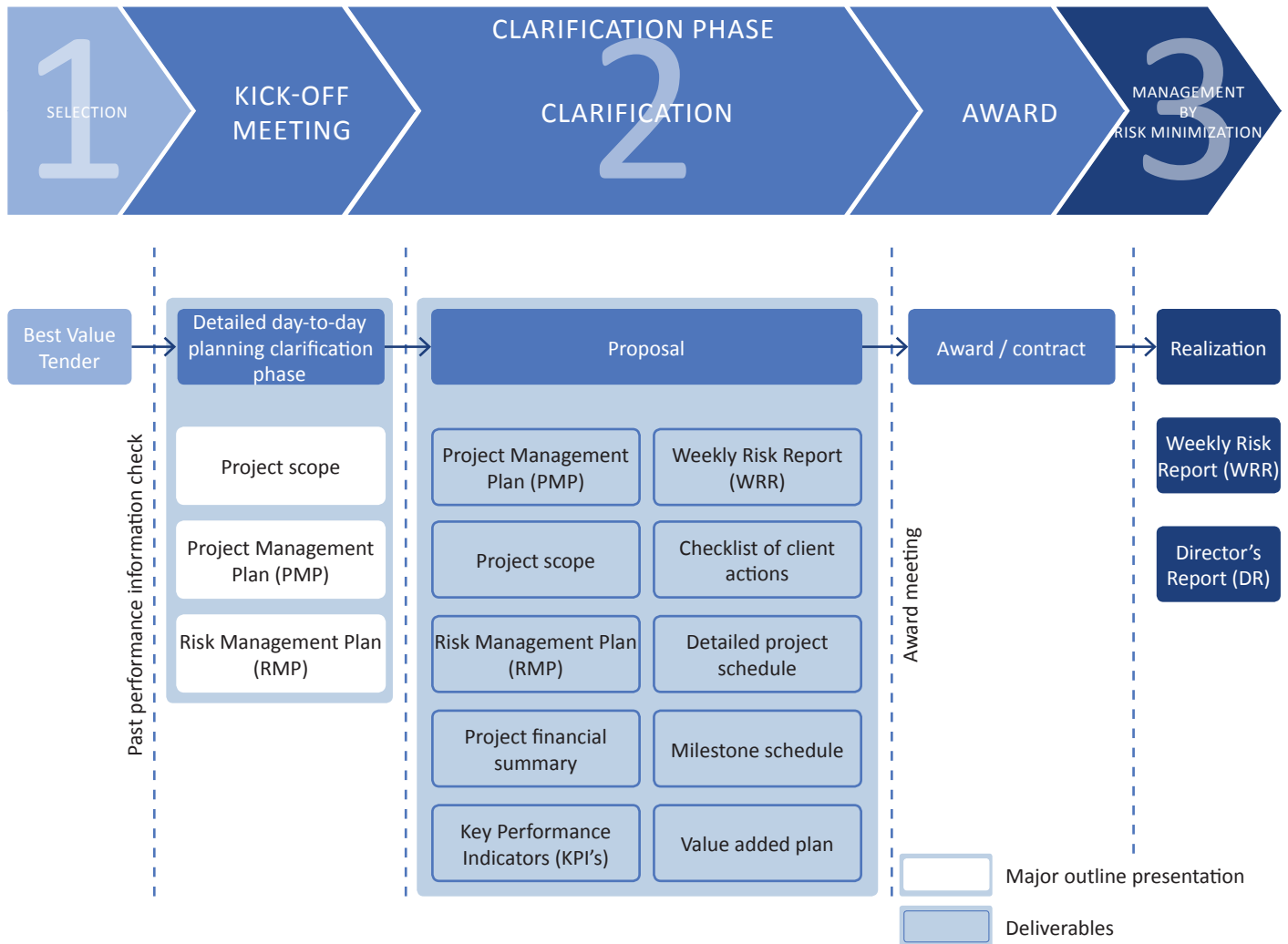


Figure 2.9: the process of the clarification phase (top part of the picture) and the products of the various parts of the clarification phase (bottom part of the picture)

PHASE 3: RISK MANAGEMENT

This final phase is concerned with the execution of the project proposal. During this phase the main focus is concerned with the management of risk. Management of the risks is based on the products which were delivered during the previous phases. Main tools during this phase are the Weekly Risk Report (WRR) and the Director’s Report (DR). These reports are used to create transparency, communicate information as quickly as possible without generating contractual issues, assigning accountability, and creating a supply chain approach (Kashiwagi, 2013:b). The WRR is used to communicate the status of the project to the buyer and can contain aspects such as deviations of the schedule (time and costs), occurred risks and mitigation of these risks. This means that the vendor is signaling risk beyond his control and describes measures to mitigate them (Kashiwagi, 2013:b, Rijt & Santema, 2013).

The purpose of the third phase is to deliver the service or deliverable with the help of the weakly risk report and director report to enhance transparency, communicate information quickly, assign accountability, and create a supply chain approach (Kashiwagi, 2013:b).

2.5 FACTORS THAT INFLUENCE THE SUCCESS OF BEST VALUE PROCUREMENT

Kashiwagi published an in-depth analysis of the factors that contribute to the success of Best Value procurement. Some are considered to be unique for Best Value procurement and some are also used in other procurement approaches. The factors and their description are presented in Table 2.2.

Based on the description of the clarification phase some factors of success are specific or even developed during the clarification phase. It may be important to keep these elements in mind when altering further in this study and research upon the case studies or during the development of the theoretical framework because it describes the success of the clarification phase and sets the initial conditions for a successful realization. In Table 2.2 the factors that are part of the clarification phase are marked based on the theory of Best Value procurement at presented by Kashiwagi in his PIPS model.

Table 2.2: factors of success in relation to the clarification phase (Kashiwagi, 2013 p.33-36 and p.43-44 (factors), Kashiwagi 2013:a (clarification phase), Kashiwagi 2013:b (clarification phase)). Factors that are considered to be unique for BV PIPS are presented in dark blue and the factors that can also be found in other procurement approaches are marked in light blue.

Factor	Description	Clarification phase of the Best Value approach
No-influence, no control, no management philosophy	PIPS gets the client to minimize direction and release control over the vendor, since the vendor is the expert. This system also focuses on making the vendor accountable for the project, due to the owner minimizing direction and decision making on the project.	The vendor is in the lead during the clarification phase, however the client can use this phase to acquire insight in details of the proposal. The client can utilize certain influence, control, and management factors to acquire these insights or have influence on the proposal.
Seamless contract	Contract mitigates risk instead of being a legal, regulatory, and control document.	The result of the clarification phase is the contract. During the clarification phase the basis for the contract is developed.
Pre-planning	The PIPS emphasize the importance of a pre-planning before the contract is signed then after the contract is signed. The contract representing the start or implementation of the service, since usually the contract binds all parties to an identified project plan and set of activities.	Central in the clarification phase is the pre-planning of the project (or planning of the project). The vendor develops a detailed planning for the third phase of the project.
Supplier contract creation	The vendor creates the contract and the scope of the project.	In the theory the vendor creates the contract on basis of the scope of the project. At Rijkswaterstaat this model of contract developing is more nuanced, the vendor gives input for the contract.
Problem contracting	PIPS does not require the client to identify the scope of the project. Allowing the buyer to only relay their intent and expectations.	The vendor is selected on basis of the Best Value that they offered at the lowest cost in the first phase. The scope formulation is further engaged with in the clarification phase. The client therefore relies on their intent and expectations towards the vendor.
Communication minimization	System minimizes communication between vendor and client.	The basis is created for the minimization of communication in the third phase (WRR). During the clarification phase communication is important for the alignment of the proposal of the vendor with the client.
Expert supplier model	Vendor has no technical risk and focuses on mitigating risk the vendor does not control.	The vendor develops a RMP during the clarification phase to identify and mitigate risks that the vendor does not control.
Dominant information	Communication focuses to be in simple, clear, and in non-technical terms.	Throughout the Best Value approach the use of dominant information plays a central role in the communication between client and vendor.
Planning	The system emphasizes that thorough planning after a contract award can help improve the efficiency and performance of a project.	Planning relates mainly to the planning after the contract to improve the efficiency and performance of the project. The planning is the result of the pre-planning in the clarification phase. The use of a planning in the pre-award phase is central in the structuring of the phase and the realization of the clarification.
Measurement tools	Vendor has a tool or process that measures their performance of the project in any manner.	The performance measurement tools are developed during the clarification phase (WRR).
Training program	Some type of training is provided to both the client and vendor employees working on the project to increase performance and efficiency.	Training is used in the implementation of the Best Value approach. In the clarification phase a training concerning this phase is used at the start of the phase (often before the kick-off).
Project constraints	System identifies project constraints at the beginning of a project to help project management.	The project constraints are explored further and formulated during the clarification phase (e.g. scope of the project).
Information communication technology	The system uses any type of information communication technology to aid in communication on the project. This includes using any type of software, the internet, or other devices.	Information communication technology is used during the clarification phase and tools are developed to communicate i.e. performance information during the realization.

2.6 CONCLUSION

The first research question of this study was concerned with developing a better understanding of the Best Value approach and its underlying theories. As a background, the comparison has been highlighted between price oriented and value based procurement approaches. The sections that followed are necessary to answer the first research question which was formulated as follows:

1. What is the clarification phase and what makes it successful according to the Best Value theory?

Underlying theories are introduced to gain an initial understanding of the concept of Best Value. Two main theories are presented: the closely related Information Measurement Theory and the Kashiwagi Solution Model. The Information Measurement Theory is mainly concerned with the predictability of the outcomes of an event based on all the information that is always there. However, no person is capable of perceiving and measuring all information. The Kashiwagi Solution Model provides a method of identifying which characteristics have positive correlations to the use of information and to identify a perceptive expert (type A individuals).

After the theoretical background, the Best Value approach is introduced. It is concluded that the Best Value approach is a procurement approach, project management and risk management strategy that focuses on gaining the highest value for the lowest costs. Best Value procurement at Rijkswaterstaat is adapted from the theory of Kashiwagi to comply with the Dutch and European legal context. Best Value procurement consists out of three phases: the selection, clarification, and the execution phase (management by risk minimization).

The first phase is concerned with the selection of the Best Value tender through various filters that consist of three short submittals and interviews in which performance information is central. Performance information should be communicated as dominant information which is information that is non-disputable; verifiable; accurate; contains measurements in terms of numbers, percentages, or time; relates to high performance; and shows high probability of performance of the claim of the future.

The clarification phase is the second phase. Its objective is for the vendor to clarify the scope of the work to be executed; identify if the vendor's proposal is acceptable to the client; clarify the expectations of the client; and finalize an acceptable offer for the client. It is important that the vendor further engages with the project and pre-plans the actual execution of the project in detail. The clarification phase is considered to be so important as it develops the basis for the realization of the project.

In the third phase, the realization of the project is the central concern. The purpose of the third phase is to deliver the service or deliverable with the help of the weakly risk report and director report to enhance transparency, communicate information quickly, assign accountability, and create a supply chain approach.

Various factors are introduced which assist in identifying the success of the Best Value approach. These factors can play a role in the analysis of the case studies since they are considered to be at the basis of a successful clarification phase as well. The use of the factors increases the insight in the reasons what makes Best Value and the clarification phase successful compared to more traditional procurement approaches.



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RECONNAISSANCE OF BEST VALUE PROJECTS AT RIJKSWATERSTAAT

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3.1 INTRODUCTION

In the following section a reconnaissance of the implementation of Best Value is introduced as a background for the selection of relevant theories for the theoretical framework and to develop an initial understanding of the Best Value practice at Rijkswaterstaat. First five project evaluations are presented which are analyzed (3.2) followed by the findings regarding the process (3.3) and products (3.4) of the clarification phase. The findings of this reconnaissance are important to select theories based on both insights on the theoretical notions of the Best Value approach and the practical side from the implementation at Rijkswaterstaat.

3.2 ANALYSIS OF PROJECT EVALUATIONS

Rijkswaterstaat evaluates the Best Value projects because Best Value is a new and innovative procurement approach which is developed through pilot projects. The evaluations of Rijkswaterstaat are taken as a reconnaissance to understand the process and development of the products during the clarification phase better as implemented in Best Value projects at Rijkswaterstaat. Developing an understanding through these evaluations is used to elaborate the problem further before the theoretical framework is formulated and the cases are selected and analyzed further. A total of five projects have analyzed using the available evaluations.

- Project 5.
- Project 3.
- Project 7.
- Project 4.
- Project 2.

These projects all had a Best Value clarification phase which had been finished and evaluated at the time the study started this evaluation. Each evaluation incorporates insights from both Rijkswaterstaat as client and the various vendors who entered this phase as the preferred vendor.

In attachment A an overview of the various evaluations is presented concerning the process and products of the clarification phase considering various positive and elements open for improvement found in the evaluation of the projects. These findings have also been generalized and are presented in Attachment A as well. A distinction is made between the products of the clarification phase and the processes which have taken place.

3.3 PROCESS OF THE CLARIFICATION PHASE OF BEST VALUE

In the evaluations various aspects were presented regarding different aspects of the clarification phase. The results of the analysis of the evaluations are presented below according to the classification which has been used to arrange the various findings and conclusions of the evaluations.

GOAL OF THE CLARIFICATION PHASE

It is noted that the goal of the clarification phase is not always clear and is subject to differences in interpretation between client and vendor. When the goal of the clarification phase is not clear or aligned properly between the vendor and the client various problems can occur which are presented below as well (i.e. differences concerning the level of detail of products and problems realizing transparency through lacking communication and little use of dominant information). Lack of alignment between vendor and client can therefore be seen as an important source of problems which can occur during the clarification phase and add to the overrun of the clarification phase planning.

RIJKSWATERSTAAT

An issue noted at the side of the client is the internal discussion how to formulate and develop the contractual arrangements and the contract itself. Uniform formulation of the Best Value philosophy and the theoretical tenets has led to significant discussions at the side of the client between various members of the project team and the Best Value specialists.

TRAINING AND PREPARATION

At the start of the clarification phase Rijkswaterstaat organizes trainings to prepare the vendor for the phase at hand. Feedback on these efforts of Rijkswaterstaat is diverse. From the perception of the vendor the content van of training is sometimes perceived as too theoretical for the actual application of the Best Value philosophy. Lack of experience at the vendor sides add to the problem that actual implementation of the theoretical tenets is experienced as difficult. An important mentioned is the lacking attention for the different roles the vendor and the client take in the clarification phase based on the Best Value principles. Lack of experience plays a role in the last notion as well.

Preparation is an important part for a successful start of the clarification phase. In various projects it is noted that the vendor is not ready for the clarification phase at the start of their planning. The mobilization time needed for the vendor's team is not in line with the planning details provided in the selection phase. As a result the vendor loses time that is used in the planning for the elaboration of their proposals.

PLANNING

The planning of the clarification phase itself is proposed by the vendor. Various remarks on the planning of the clarification phase are introduced in the evaluations. It is notable that the vendor takes the indication of Rijkswaterstaat (indication of 6 to 8 weeks) as the basis for their planning instead of focusing on their own processes and envisioned products for the clarification phase. Overall the planning of the vendor are evaluated afterwards as being too narrow and limited to realize alignment between client and vendor about the project goals and scope. It also happened that the time in the planning was not sufficient for the vendor to produce a realistic and detailed planning for the entire realization phase. However, at some projects it was noted that the limited time pressured the vendor to keep using dominant information during the clarification phase. A notable observation at a project was the fact that Rijkswaterstaat planned in certain meetings with

stakeholders which is conflicting with the lead the vendor is supposed to have and take.

During the clarification phase some planning related issues occurred as well. During the phase the products are often delivered short before meetings leaving too little time for the project team at Rijkswaterstaat to review them and prepare for the meetings. The planning itself incorporates little time for the evaluation of the vendor's products. Additional to this is that the first concept products are often delivered very late in the process which combined with the numerous comments at the client side on the concept products lead to problems with the planning.

MANAGEMENT

Management of the project and the process is an important aspect of translating the Best Value approach into practice. Various aspects are observed during the clarification phase with direct regard to the management on both the client and the vendor side.

The client is used to have a more control-oriented management style in which manage, direct, and control are central features in aligning the vendor with the goals of the client. The shift towards a more involvements oriented management style is often not optimal and especially more experienced team members are sometimes falling back into their old roles. The restrained position of the client with less focus on control over the vendor also results in problems to stimulate the vendor to work in an effective and efficient way without using the more traditional management notions.

For the vendor it is often unclear what being in the lead actually means. The role they have to fulfill is different from more traditional procurement approaches in which a dialogue with the client helps to formulate what they are actually are going to do. This difference in approach is often difficult for the vendor to comprehend because often Best Value is rather new for the tender teams. Falling back into older roles and a more awaiting stance by the vendor sometimes results in not being in the lead. In this process it is for the vendor difficult to understand the new role of the client and the tasks the client will fulfill during the clarification phase.

COMMUNICATION, INFORMATION EXCHANGE, AND ALIGNMENT

Aligning the project goals between the client and the vendor needs to be realized through clear communication and information exchange with the help of dominant information. The evaluations of the Best Value projects lead to various observations with regard to communication, information exchange, and alignment between client and vendor. It is noted that the added value of the clarification phase is partly realized through an open consultation structure in which ambiguities and interpretation differences are clarified early and earlier than normal. On the other hand it is often concluded that the open consultation structure is not present from the start of the clarification phase or only limited realized during the entire clarification phase. This also relates to another observation that the exchange of information and communication was too limited to realize the transparency and open communication structure. Expectations of the communication pattern during the clarification phase are often perceived as implicit and therefore difficult to fulfill during the process.

AWARD MEETING AND AWARDING OF THE CONTRACT

The award meeting and the eventual awarding of the contract represent the end of the clarification phase. During the clarification phase the vendor formally has not acquired the contract yet. This is perceived as high uncertainty by the vendor at hand while a certain degree of certainty can be seen as present since the proposal is initially selected over others and by the fact that Rijkswaterstaat never discontinued the prioritized vendor. Another aspects that is noted in the project evaluations is the lacking clarity of the formal go/no-go moment in the award meeting and what this means with regard to the actual awarding of the contract.

3.4 PRODUCTS OF THE CLARIFICATION PHASE OF BEST VALUE

During the clarification phase the goal is to deliver products which underpin an acceptable offer from the vendor to the client. Various aspects are noted in the analyzed evaluations which underline certain issues with the envisioned products that the vendor has to deliver during the clarification phase.

RIJKSWATERSTAAT

At the moment this study is carried out one of the products (shared risk document) is conflicting with the internal policies of Rijkswaterstaat. The policies of the Rijkswaterstaat appoint that there cannot be such a thing as a shared risk file and the client and vendor should both have their own risk file because it is suggested that a vendor cannot value the risks of the client good enough to manage these risk in the best manner possible for the client. These policies originate from the more traditional approaches to procurement and project management at Rijkswaterstaat.

DELIVERABLES OF THE CLARIFICATION PHASE

As introduced in Chapter 2 there are various deliverables that the vendor has to produce during the clarification phase. During various Best Value project the goals of the clarification phase in terms of deliverables was not clear. This also relates to the following point about the level of detail which is closely related to the actual deliverables of the clarification phase.

LEVEL OF DETAIL OF PRODUCTS

The products that are envisioned to be delivered during the clarification phase are subject of discussion during the clarification phase. Discussions are appointed to the level of detail of certain products which are in general unclear. As a result the level of detail is often subject of discussion and leads to problems when products are delivered with insufficient level of detail. Vendors often look back on certain products that they finally deliver as too detailed; the risk management plan is an example. The discussions concerning the deliverables and the level of detail indicate that there are often no clear arrangements concerning the content and level of detail in which the products have to be delivered, a point that is also found in the evaluations.

QUALITY LEVEL OF PRODUCTS

The discussion concerning the content and level of detail of the various products is also results in the discussion about the perceived quality of the products. Often is the quality level and the content of the products of the vendor not in line with the expectations of the client which results in an additional round of product improvement during the clarification phase.

3.5 CONCLUSION

Evaluations of five Best Value projects at Rijkswaterstaat are analyzed to gain an initial understanding of the implementation of the clarification phase of the Best Value approach. This analysis is used to further engage with the research problem and better comprehend the problems at hand in order to enable a better composition of the theoretical framework.

Regarding the process, some of the main observations from the evaluation studies indicate that the goal of the clarification phase is not always clear and that interpretation differences arise between client and vendor. This is also reflected in other aspects of the process such as unclear notions about the roles and tasks of client and vendor, the meaning of being in 'the lead' as vendor, and the organization of communication and information exchange between vendor and client during the clarification phase. Other important observations regarding the process relate to the planning which often lacks time to review products, does not allow sufficient alignment between client and vendor, and is not sufficient to develop the envisioned products. During the clarification phase, instances occur where the client and the vendor revert back to manage, direct, and control mechanisms. This often results in a process whereby the vendor is not in the lead during the entire clarification phase.

The organization of the process also has implications for the products. A lack of understanding and consensus about the products (i.e. scope and the level of detail) can be seen as a direct result of the differences in interpretation of the client and vendor. As a result, the level of detail and the scope of the (concept) products are often regarded as insufficient and they do not align with the expectations of the client.



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THEORETICAL FRAMEWORK

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4.1 INTRODUCTION

In this chapter the theoretical framework is introduced and is related to the Best Value approach and the initial reconnaissance of the implementation at Rijkswaterstaat. Central in this chapter is the second research question of this study.

2. What selection of relevant theoretical perspectives could be used for the theoretical framework underlying the clarification phase of the Best Value approach?

The clarification phase has been central in the analysis of the reconnaissance and will be central in the clarification of the theoretical framework as well. The clarification phase of Best Value is in essence concerned with the elaboration of a proposal and the basis of a contract between the client and the vendor. Part of clarifying the proposal is the delivery of a selection of products which are created during the process of the clarification phase. The interactions between client and vendor and the process to develop the envisioned products are central in the agency and stewardship theory. As the theories will be introduced in the next section it will become clear that the selected theories are (partly) comparable or recognizable in the theory of Best Value and its implementation.

The theories will be introduced below and similarities with Best Value will be appointed. Through this process the relation between client and vendor in terms of principal, agent, and stewardship relationships will make the suitability of the theoretical framework apparent. In the following sections first the agency theory (4.2) will be introduced followed by a comparison of this theory with the Best Value approach (4.3). The same structure is then used to describe the stewardship theory as well (4.4 & 4.5). After the introduction of the theories a comparison is made between the two theories and the Best Value theory and initial results from practice (see also Chapter 3) to appoint the basis for analysis of the case studies later in this study (4.6).

4.2 AGENCY THEORY

Agency theory is often referred to as the principal-agent model. It is used in the organizational economics and management literature as a theoretical framework for the structuring and managing of contract relationships (Slyke, 2006). Agency theory is one of the theories of the New Institutional Economics (Duren, 2013). Agency theory is concerned with the continuously present agency relationship. In this relationship one party (the principal) delegates work towards another party (the agent) which will perform the work. The metaphor of a contract is used by the agency theory to describe this relationship between principal and agent (Eisenhardt, 1989:b). Agency theory is based on the 'model of man' that emphasizes a self-interested actor which searches in a rational manner for maximization of their own personal (economic) gain (Donaldson & Davis, 1991).

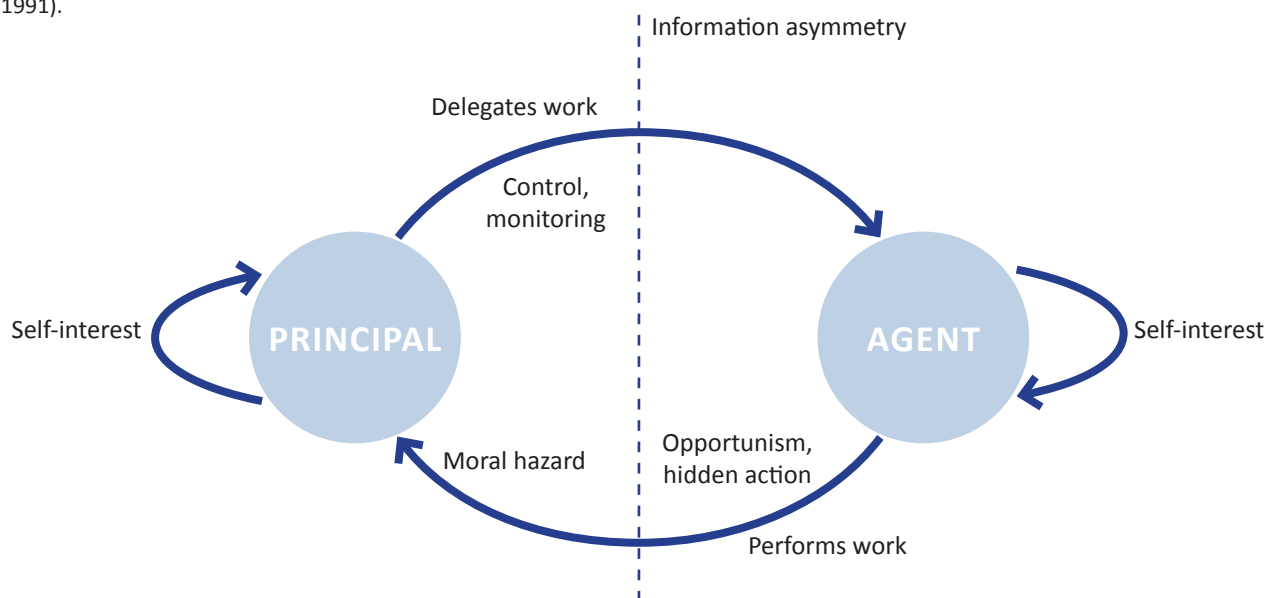


Figure 4.1: abstract representation of the agency theory with the assignment of work from the principal to the agent (Slyke, 2006).

Central problems in the agency theory are the conflict in goals between the principal and agent and the notion that the agents have (in general) more information than the principals. Agents can exploit this information advantage for self-gain instead of fulfilling collective interest of the principal or contracting party which results in problems related to moral hazard. As a result of these main problems the focus of the agency theory lies on this information asymmetry, adverse selection or pre-contractual opportunism, and moral hazard or post-contractual opportunism (Arrow, 1984, Eisenhardt, 1989:b, McCue & Prier, 2006, Slyke, 2006, Cunliffe & Luhman, 2013).

Information asymmetry is when one party has information that another party does not possess. In the agency theory the amount of information that the agent has is considered to be larger and more specific than the information the principal has. Especially early in the project this can also be the other way around; that the principal has a more information than the agent (e.g. during the start of the clarification phase). Another central concept is adverse selection or pre-contractual opportunism which is present when one party knows more about the attributes of the product or service than another party resulting in the risk for the party lacking the information about the product that they will purchase (e.g. low quality). Moral hazard or post-contractual opportunism occurs when a party uses information and expertise to act opportunistically in their own interest instead in good faith with the agreed contractual goals (Arrow, 1984, Eisenhardt, 1989:b, Kunz & Pfaff, 2002, Shapiro, 2005, Slyke, 2006). Based on these elements it is concluded that distrust plays a central role in the agency theory.

A control-oriented management style is the basis of shaping and monitoring the relation between principal and agent in an effort to enhance

the probability that agents will behave in such a way that the objectives of the principal are realized (Eisenhardt, 1985, Eisenhardt, 1989:b, Flamholtz, Das & Tsui, 1985). Control can be accomplished through performance evaluation focused on behavior or outcome (Caglio & Dittillo, 2008, Dekker, 2004, Eisenhardt, 1985, Ouchi, 1979). To control, certain knowledge concerning the process or task needs to be present enabling the principal to measure the outcomes. Shapiro introduces the possibility to organize control measures within (horizontal) and between organizations (vertical) as intrinsic part of various principal-agent relationships (Shapiro, 2005). Control measures in agency theory are effectuated through reporting and monitoring systems and relate to limited levels of trust and the focus on goal alignment (Flamholtz, 1996, Slyke, 2006).

In agency theory the principal chooses to contract an agent for reasons related to costs and expertise (Slyke, 2006). This can be the result of lacking expertise or resources at the organization of the principal and the resulting inability to produce a certain good or service. Both the principal and the agent in agency theory seek to achieve the highest value for their own investments. Given a choice the rational agent or principal will choose the option that is best for them (Arrow, 1984, Davis, Schoorman & Donaldson, 1997, Eisenhardt, 1989:b). This results in the basic premise of distrust between principal and agent. In principle the principal and the agent in agency theory have different interests (Eisenhardt, 1989:b, Davis, Schoorman & Donaldson, 1997).

The contract includes incentives and sanctions to foster goal alignment between the agent and the principal. Agency theory searches for ways to let the agent act in the best interest of the principal. Eisenhardt describes the trade-off between the cost of measuring behavior and the cost of measuring outcomes and transferring risk to the agent. This relates to the type of contracting, either behavior based contracts or outcome based contracts. Outcome based contracts can motivate the agent to align its preferences with those of the principal but at the price of transferring risk to the agent. Contextual variances can enhance risk related to the envisioned outcome that has to be appointed to someone. When the outcome uncertainty is low the costs for shifting the risk to the agent are low as well, outcome based contracts are then more attractive. Increasing uncertainty make it increasingly expensive to shift the risk. When the agent is less risk averse it is more attractive to pass the risk to the agent using an outcome based contract. The other way around results the risk adverse behavior of the agent in increasing costs for passing the risk (Eisenhardt, 1989:b).

According to the agency theory it is difficult for the principal to know what the agent is exactly doing and if they are behaving in the best interest for the principal (Eisenhardt, 1989:b, Davis, Schoorman & Donaldson, 1997). These efforts by the agent that are not entirely visible to the principal are sometimes referred to as 'hidden action' (Arrow, 1984). Monitoring is introduced to overcome information and knowledge asymmetries which are considered to be a main characteristic for many agency relationships and give the principal insight in the actual behavior of the agent (Arrow, 1984, Shapiro, 2005, Slyke, 2006). Another part of the contract can be concerned with incentive systems related to rewarding or punishment of the agent to align through incentives the goals of the agent with the principal. These incentives can be based on the type of contracts which can have either an orientation towards envisioned behavior or outcome. The incentive systems relate to the overall reward system that is constructed for the agency relationship (Eisenhardt, 1989:b, Shapiro, 2005, Slyke, 2006).

Reputation can play a central role in the forming of contracts. Reputation is often referred to in the agency theory as a contract enforcer or bonding mechanism because it has a historical role in promoting and ensuring alignment of goals. Reputation is a mechanism that is used by public managers to evaluate the past performance of organizations, to identify future vendors, and to mitigate the opportunity for moral hazard that can result from incomplete contracts (Slyke, 2006). Reputation is often created through past performance, meeting goals, meeting outcomes, and to accomplish goal convergence (Arrow, 1984). Reputation can be used as mechanism by the principal to reduce risk. Reputation can be used as an indication for the service quality and expected grade of goal alignment (Slyke, 2006).

The applications of the agency theory are diverse and are related to the ways the theory envisions to realize goal alignment between agent and principal. Agency theory is described to be utilized to eliminate opportunistic behavior. Both the principal and the agent can behave opportunistic by utilizing information that the other party may not possess for their own gain and for goals that are not stated in the contract (Slyke, 2006). Mentioned checks and balances (i.e. various modes of monitoring) can be incorporated to reduce opportunistic behavior. The principal can also design mechanisms to monitor the behavior of the agent to ensure it is in good faith with the contract (Sharma, 1997). As Shapiro mentions, these checks and balances come at an increased cost because of additional procedures, decision rules, protocols, and formulations to limit the discretion are introduced by principals and agents. Building of and retaining reputation can also be utilized as a mechanism and incentive to stimulate certain behavior or results (Shapiro, 2005).

The focus of agency theory on the contract between the principal and the agent and their focus on realizing their own goals and enforcing the contract is in general concerned with a short term perspective (Slyke, 2006). An example is the realization of their own project goals during a project and has the characteristics of a win-lose relationship between two parties which focus on their own gain.

4.3 AGENCY THEORY AND BEST VALUE

As introduced is the agency theory concerned with the relation between principal and agent during the forming and execution of contractual relationships. The Best Value approach is also concerned with this relation between the principal and the agent; however as will be introduced below in the theoretical principles and resulting envisioned practice differ extensively. Agency theory has been used by van Duren to explain the filters of Best Value as safeguards to understand the working of the approach (Duren, 2013). In the following section the agency theory will be introduced in terms of where the agency theory aligns with the Best Value approach and where there are differences between the theories. This analysis is also summarized at the end of this chapter in Figure 4.3.

Control of the client over the vendor is a central theme in the agency theory. Control is not a mechanism that is envisioned by the Best Value approach as a management structure. Instead of a control based structure the Best Value approach emphasizes that the vendor is in the lead to deliver the project goals. During the clarification phase the client and the vendor establish the alignment between the project goals, scope, and the approach of the project execution. The agency theory tries to align the principal and the agent as well, however using more management and control structures to enforce the goals of the principal. The difference in the notion of control is further elaborated in the comparison between theories later in this chapter.

Goal alignment between principal and agent is central in the Best Value approach as well. The alignment in the agency theory is achieved through mechanism incentives and sanctions. In Best Value the goals are envisioned to be aligned but this is not achieved through incentives and sanctions. Project goals are used by the vendor to create a proposal which results in the scope and proposed process that delivers the Best Value for these goals.

Central in the agency theory is the shift of risks between the principal and the agent. Especially the assignment of risks to the agent to ensure the compliance of goals with the principal is notable compared to Best Value. In Best Value this is not the case and all risks are essentially allocated at the client since the vendor has no risk because he is the expert for the scope that has been defined by the vendor self. It is certainly not part of the Best Value approach to transfer or assign risk from the client to the vendor.

The basics for reduction of what in the agency theory is defined as moral hazard are developed during the clarification phase. WRR and DR can be seen as tools to enhance the transparency between the involved parties and from an agency theory perspective as a mild form of monitoring. These tools are also applied because a major part of the agency theory is concerned with the fact that the client does not know exactly what the vendor is doing. The use of dominant information enhances the transparency and is used to communicate about what risks are influencing or threatening the performance of the vendor. Notable is that there are no tools used in Best Value during the clarification phase to enhance transparency during the process of delivering the final proposal.

Reputation is part of Best Value with the use of metrics concerned with for example past performance of the vendors. During the clarification phase the reputation of the vendor is not explicitly used, however successful completion of the clarification phases could be used as metric for future projects. Reputation is used in the agency theory as well, however more as a threat towards the agent instead of metrics to underpin for example the proposals content.

The clarification phase plays an important role in the reduction of what agency theory defines as opportunistic behavior. Pre-planning the project gives insight in the experts on the project and indicates that the vendor is able to oversee the project from the start to the final delivery. Delivering the proposal with this expertise should also contribute to the reduction of opportunistic behavior.

In the agency theory information is perceived as a commodity. In the Best Value approach expertise is perceived as a commodity in terms that it is hired through procuring experts which provide the Best Value for the project. However a difference is that agency theory tries to eliminate the information differences between principal and agents by transferring risk and monitoring intensively to reduce the change on misuse and opportunistic behavior. Best Value does not try to achieve reduction of information differences but provides tools to select experts and uses dominant information to communicate.

Agency theory tries to achieve an optimal contract between the principal and the agent. Best Value also tries to establish an optimal contract during the clarification phase by giving the vendor the opportunity to formulate significant parts of it (i.e. scope of the project). This differs greatly with the agency theory where a significant part of the contract is dedicated for incentives, sanctions, and monitoring measures to establish goal alignment and stimulate proper behavior and outcomes.

Lack of expertise and resources at the principal's side is a central topic in Best Value as well. The principal uses the Best Value approach to select a suitable vendor which has the expertise and capacity to realize the envisioned project goals of the client or principal. Best Value is in a certain way an approach to select a suitable vendor in a situation where there is a high information asymmetry through the use of dominant and past performance information. The difference with agency theory is that information asymmetry is only partially removed. Information is not transferred with the goal to remove the information asymmetry but to provide metrics which underpin the expert's proposal and confirm their expertise and validates that the vendor is capable of performing the project. Based on the proposal and the past performance of the vendor at hand a verified trust is created between client and vendor.

Selection of the vendor on basis of MEAT contributes to the reduction of adverse selection since it is more difficult to profile based on price only. Further reduction of adverse selection is realized during the clarification phase in which the vendor gives more insight in the proposal. Adverse selection is approached in a different manner in the agency theory because it is not explicitly reduced by the way the selection happens but by contractual measures which are implemented to reduce the chance.

The model of man underlying the agency theory fits with the way experts are displayed in the Best Value approach. The principal and the agent are seen as rational entities just as the IMT is presented to appoint the rational manner in which expert operate in a project. The model of man differs on the point where agency theory emphasizes the self-interest of the principal and agent. Best Value stipulates that the selected vendor is aware of the notion that delivering a project that fits with the client's goals is also best for them as explained earlier in this study.

Agency theory is to a limited extend based on trust between the principal and the agent. Trust in the traditional sense is not a part of the Best Value approach due to the use of experts and past performance information which are perceived as elements that eliminate the need for trust and decision making by any party involved in the project. Trust in Best Value can therefore be seen in a more validated or verified form, based on an expert's past performance information trust is developed.

4.4 STEWARDSHIP THEORY

Stewardship theory is often used as an alternative theory for the agency theory (Segal & Lehrer, 2012, Slyke, 2006). The stewardship theory is just as the agency theory centered on the relationship that is developed between one party (the principal) that delegates work towards another party (the steward) which performs the work.

Stewardship theory has been introduced as a mean to define relationships based on behavioral premises (Davis, Schoorman & Donaldson, 1997). Stewardship theory is concerned with the relationships and behaviors that are often discounted in organizational theories, it emphasizes the collective, is pro-organizational, contractual behavior in which a focus exists on goal convergence compared to the agency theory which focuses on self-interest (Segal & Lehrer, 2012). Important assumptions of the stewardship theory are that long-term (contractual) relations are

developed based on trust, reputation, collective goals, and involvement where alignment is an outcome from mutual relations (Slyke, 2006). The long-term relation between client and vendor is present in the Best Value approach but more over the projects; the past performance metrics are valuable for future projects.

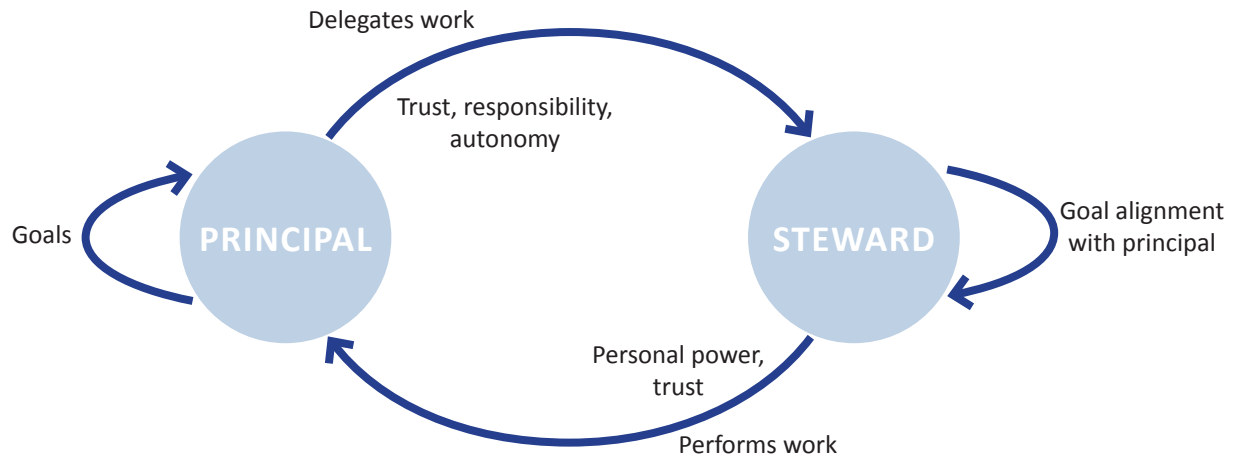


Figure 4.2: abstract representation of the stewardship theory with the relation between the principal and the steward (Slyke, 2006).

Compared to the principal agent theory where personal interest comes first, is the stewardship theory concerned with being accountable for something larger than the individual gain. The 'model of man' underlying the stewardship theory is therefore also different from agency theory. The focus shifts towards a steward whose behavior is ordered in such a manner that pro-organizational, collective behavior with higher utility than individualistic and self-serving behavior is created and sustained (Davis, Schoorman & Donaldson, 1997:a).

As a result of the model of man, places the stewardship theory an emphasis on collective goals instead of individual ones. In the steward relation the steward makes decisions that are in line with, and can be perceived as decision in the best interest of the principal. Successes of the organization or the contract is introduced as an accomplishment and incentive to align goals (Davis, Donaldson & Schoorman, 1997:a, Davis, Donaldson & Schoorman, 1997:b, Slyke, 2006). Stewards are also motivated by intrinsic awards which include trust, reputation enhancement, discretion, autonomy, responsibility, satisfaction in the job, stability, and mission alignment (Slyke, 2006).

An involvement-oriented management style is promoted and developed during the project and relationship from a basis of trust out of a legal and transactional arrangement (Davis, Schoorman, & Donaldson, 1997:a, Slyke, 2006). Information exchange and involvement are examples of tools to enhance the development of the relation and enhance the alignment of goals. Reducing and managing risks is also part of the professional relationship. Through extensive interaction and involvement during the project and communication about goals and approaches to the project is trust established and developed. From this perspective it is clear that in stewardship theory trust is not necessary present when the contract is put into place (Hillebrand & Biemans, 2003, Kadefors, 2004, Slyke, 2006). The development of trust is also related to the personal power of involved persons which is highly related to respect and expertise (Davis, Schoorman & Donaldson, 1997:a).

The behavior of a steward is focused on the collective because a steward tries to attain the objectives of the organization. Stewardship theory envisions that there is a strong relationship between the success of an organization and the level of satisfaction of the steward and the principal (Davis, Donaldson & Schoorman, 1997:a). Reward systems are therefore also seen from a non-monetary perspective to foster motivation of the stewards. As a result of the alignment between the principal and the steward is it assumed that moral hazard is less of an issue since the steward works on behalf of the principal (Wesley, 2010). Reputation is also part of the reward through delivering successful results to the principal by the stewards which can serve as an incentive (Davis, Schoorman & Donaldson, 1997:a, Slyke, 2006).

Trust is a fundamental element of the stewardship theory. Trust is seen as the willingness and risk of being vulnerable to the possibility that one of the actors in the contract pursues self-interest and exclude collectively agreed goals of the contract (Mayer, Davis & Schoorman, 1995). Personal power is an important part of the individual in the context of personal relationships. Personal power is developed over time and is a type of power that is at the basis of influence in the principal-steward relationship. Personal power relates to respect and expertise of a person and underlies also the trust factor in the stewardship theory (Davis, Schoorman & Donaldson, 1997:a).

Stewardship theory is concerned with stimulating that stewards govern themselves to create a strong sense of autonomy and responsibility for outcomes (Block, 2013). Autonomy is introduced as a central benefit of the steward because it stipulates that trust is present (Davis, Schoorman & Donaldson, 1997:a). Responsibility is seen as a part of stewardship that encourages long term commitment towards the organization (Hernandez, 2007). Resources that are necessary to guarantee behavior in favor of the organization by the steward are diminished because motivation is created to behave in consistence with the objectives of the organizations. Control can be counterproductive because it undermines pro-organizational behavior by lowering the level of motivation (Slyke, 2006). Stewardship theory uses the concepts of responsibility and autonomy as mechanisms to reduce or even ban opportunistic behavior. Stewardship theory appoints that it is therefore necessary that cultural values and norms are aligned to make be successful in utilizing the theory.

Governance mechanisms have to fit with the model of man which underlies the stewardship theory. Therefore the governance structures and mechanisms that are appropriate need to have an empowering nature. The steward's autonomy needs to be extended to create maximal benefits for the steward, because the steward can be trusted (Slyke, 2006). Stewardship is based on a set of principles and practices that are concerned with creating ways to let stewards govern themselves to create a strong sense responsibility for the outcomes.

4.5 STEWARDSHIP THEORY AND BEST VALUE

Stewardship theory and the Best Value approach have remarkable theoretical coherences which also appoint the theoretical differences between those theories and the principal-agency model. In the following section the stewardship theory is further considered in relation with the Best Value approach to understand similarities and differences.

An important coherence between the way stewardship theory and Best Value perceive the relation between the client and the vendor is the use of common goals and the ability of the steward to place the goals of client above their own. Best Value uses the clarification phase to give the vendor the opportunity to explain their proposal further and use the project goals of the client to formulate the project scope and corresponding products to execute the project in a successful manner. This process enforces the vendor to engage with the goals of the client and make these central in the project. The expert understands that for a successful realization with efficient and effective use of resources this alignment of goals is necessary.

Cooperation in stewardship theory is central to create value and place the alignment of goals with the principal above self-serving behavior. Best Value tries to establish a certain level of cooperation to enable the vendor to create the Best Value. The vendor positions a leading role and indicates how the client can contribute to the realization of the project goals. This could meet the involvement-oriented management philosophy which determines the character of the stewardship theory to an large extent.

Stewards have higher levels of autonomy and responsibility to realize the goals of the principal. This autonomy is also a part of the intrinsic reward system that is envisioned by the stewardship theory. In the Best Value approach the vendor is in the lead which means that there are high levels of autonomy present in which the experts are able to realize the formulated scope of the project. Responsibility is part of Best Value as well. Responsibility is introduced in stewardship theory as underlying principle for personal and organization aspects. In Best Value this can be translated as the expert who acts in the best interest of the project and therefore serving both the client and the vendor organization. The client is ensured that the expert is able to act in the best interest with the project goals through underpinning of the proposal. Underpinning of the proposal is realized by metrics to show the capabilities and to ensure that the mentioned plan is highly likely to be successful based on earlier applications.

Selecting the Best Value vendor is based on a shared set of norms and values in which both the client and vendor share the common goals to realize the Best Value for the lowest costs. In stewardship this shared set of norms and values are also introduced and are necessary to maintain a stewardship relationship. Lacking these norms and values on either side of the contract will result in an agency relation where a win-lose situation is likely to occur (Davis, Schoorman & Donaldson, 1997:a).

Trust between the principal and the steward is important in the stewardship theory. As introduced in the agency theory section, trust as introduced in the stewardship and agency theory does not align with the Best Value approach from a theoretical perspective. The expert has the ability to oversee the project and the personal power to align the resources in such a manner that the project goals are realized in an efficient and effective manner. In Best Value because the expert oversees the entire project and is therefore likely to allocate the resources as good as possible. Trust is not present in the classical sense presented in agency and stewardship theory because in Best Value performance information is used to validate if the vendor is suitable for the project and likely to deliver the value that is presented in the proposal (see also the Intermezzo about trust in this chapter).

Successes and reputation enhancement are introduced in the stewardship theory as incentives to align goals and strive for project success. Best Value stimulates vendors to deliver the project in a successful manner as well through selecting the right vendor for the project. During the project the WRR plays an important role in creating transparency but can also be used by the vendor as metric for a future project to underpin the project's proposal. Reputation is therefore used and created during the application of the Best Value approach and shows correlations with the concept of reputation used in the stewardship theory.

Stewardship theory approaches the development of the contract in a similar manner compared to the Best Value approach. As in Best Value, is in the stewardship theory the vendor more actively involved in the defining, structuring, and the implementation of the contract. Both theories focus less on the legal contract as a tool to enforce envisioned behavior.

Control is in both the stewardship theory and the Best Value approach perceived as counterproductive. Stewardship sees control as something that has the potential to undermine the pro-organizational behavior of the steward through reduced motivation as result of the control mechanisms. Best Value promotes the elimination of control mechanisms in favor of putting the expert in the lead to utilize their expertise to create value in the project.

AGENCY THEORY

Model of man: Emphasizes a self-interested actor which searches in a rational manner for maximization of their own personal (economic) gain.

- Goal incongruence: assumes goal divergence based on self-interested rational actors.
 - Initial position is to distrust.
 - Control-oriented management philosophy.
 - Theoretical assumptions are from economics.
-
- Use of incentives and sanctions to foster goal alignment.
 - Assign risk to the agent to ensure goal compliance.
 - Monitoring and control mechanisms.
 - Reward systems.
 - Use of bonding threat to reputation.
 - Short term.

STEWARDSHIP THEORY

Emphasizes an actor as a steward whose behaviour is ordered in such a manner that pro-organizational, collective behaviour with higher utility than individualistic, and self-serving behaviour is created and sustained.

- Goal alignment: mutual goals and objectives.
 - Trust develops over time, initial trust position can be absent.
 - Involvement-oriented management philosophy.
 - Theoretical assumptions derived from organizational behavior, psychology, and sociology.
-
- Responsibility.
 - Autonomy.
 - Shared culture and norms.
 - Personal power and trust.
 - Other governance mechanisms.
 - Long term.

BEST VALUE APPROACH

Emphasizes an expert actor whose behaviour is ordered in such a manner that pro-organizational/pro-project, collective behaviour is realized with a focus on creating a win-win situation in which validated trust through past performance information is created with a focus on high performance and creating value.

- Goal alignment: project goals and objectives are set by the client and developed into a scope by the vendor.
 - Trust is established through performance information.
 - Vendor is in the lead and involves the client when necessary.
 - Management model is based on listening, observe and streamlining of the process.
 - Theoretical assumptions from information measurement theory and Kashiwagi solution model.
 - Verified trust (verified performance) and to a limited extend personal power.
 - No decision making.
 - Expertise and professionalism.
 - Minimization of communication.
 - Dominant information.
 - Transparency.
 - Risk management (risk mitigation).
 - Long term (past performance and focus on win-win).
-
- Goals are aligned according to the project goals and objectives which are formulated by the client and filled in by the vendor.
 - Trust is developed through the use of past performance information.
 - Expert is in the lead and has the control.
 - Opportunistic behaviour, information asymmetry, moral hazard and asset specificity is reduced through the use of dominant information (transparency), leading role of the expert (vendor), and the focus on a win-win situation.
 - Incentive system based on expertise enhancement and creating high rated past performance information (reputation as an incentive and sanction).
 - Reduced dependency on the legal contract.

Applications

- Eliminate opportunistic behavior.
- Provide the level of incentives and sanctions which reduce the threat of information asymmetry.
- Correct, through specific contract requirements, for asset specificity and moral hazard.
- Uses reputation as an incentive and sanction.
- Ensure goal alignment.

Theory (fit with Best Value approach)

- Practice (on basis of analysis of evaluations; fit with Best Value approach)
- Alignment with Best Value/alignment with Best Value practice
- Partly aligned with Best Value/partly aligned with Best Value practice
- No alignment with Best Value/no alignment with Best Value practice
- Not applicable/no data

Figure 4.3: summary and comparison of the agency theory, the stewardship theory, and Best Value approach (from a theoretical perspective with a focus on the clarification phase) (after: Davis, Schoorman & Donaldson 1997:a, Donaldson & Donaldson 1997:a, Donaldson & Davis, 1991, Kashiwagi, 2013:a, Kashiwagi, 2013:b, Slyke, 2006).

4.6 COMPARISON BETWEEN THE THEORIES AND THE BEST VALUE APPROACH

Best Value has been introduced before in perspective of the agency and stewardship theory. From a theoretical perspective the three theoretical notions are compared in Figure 4.3. In this Figure is it possible to compare the central notions of the agency theory and the stewardship theory as well and can be seen as a brief summary and addition of the comparisons made in the sections above. Below the agency and stewardship theory will be considered from a perspective of choices which both the client and the vendor can make with respect to an agency or stewardship modus during a project. The agency theory is embedded in the theories that underlie the New Institutional Economics which offers more embeddedness and a toolbox to ensure aspects such as alignment of goals between client and vendor (e.g. assignment of risk, reward systems, and emphasis on contractual arrangements). In the stewardship this toolbox is more neutral and based on premises such as trust, responsibility and accountability.

AGENT OR STEWARD

Davis et al. notice that the development of what they call a 'true stewardship relationship' depends on the choices that the principal and the potential steward make regarding their management approach (Davis, Schoorman & Donaldson, 1997:a p.38). When this stewardship relationship occurs it is likely that it enhances the maximum potential performance of the cooperation. In this situation the steward focuses on fulfilling the purpose and objectives of the project or organization while the principal chooses to create a situation which enables the steward (involvement and empowerment) (Davis, Schoorman & Donaldson, 1997). This type of relationship could be characterized as a value based approach that is presented in Chapter 2 and the kind of relationship that the Best Value approach tries to establish during a project.

When both parties choose for the agency relationship a true principal-agency relationship is developed which will result in realization of the expectation that both parties have of each other as presented in Figure 4.4. In this situation a control driven situation is highly likely to occur (Davis, Schoorman & Donaldson, 1997). This type of relationship could be characterized as the price based approach presented in Table 2.1 and can be considered as almost the opposite of Best Value and the Best Value approach.

It is also possible that the client and the vendor choose a different modus. In this situation one of the parties is likely to feel betrayed and frustrated (the party who selected the steward modus). The client as stewards in this relation are controlled as agents and are unable to reach the internal rewards and are likely to engage in anti-organizational behaviors. When the client takes the agent role in this relation it is highly likely that they take advantage of the steward (vendor) (Davis, Schoorman & Donaldson, 1997). These managerial choices for either an agent or stewardship modus and the consequent results are represented in Figure 4.4.

Figure 4.4 can also be seen as an operationalization of KSM which was introduced in Chapter 2. The orientation towards either an agent or a steward modus can also be traced back to KSM's left and right side persons (type A or type C persons respectively). Mutual agency relationship can be seen as a relationship between type C persons and the mutual stewardship relationship as a type A relationship.

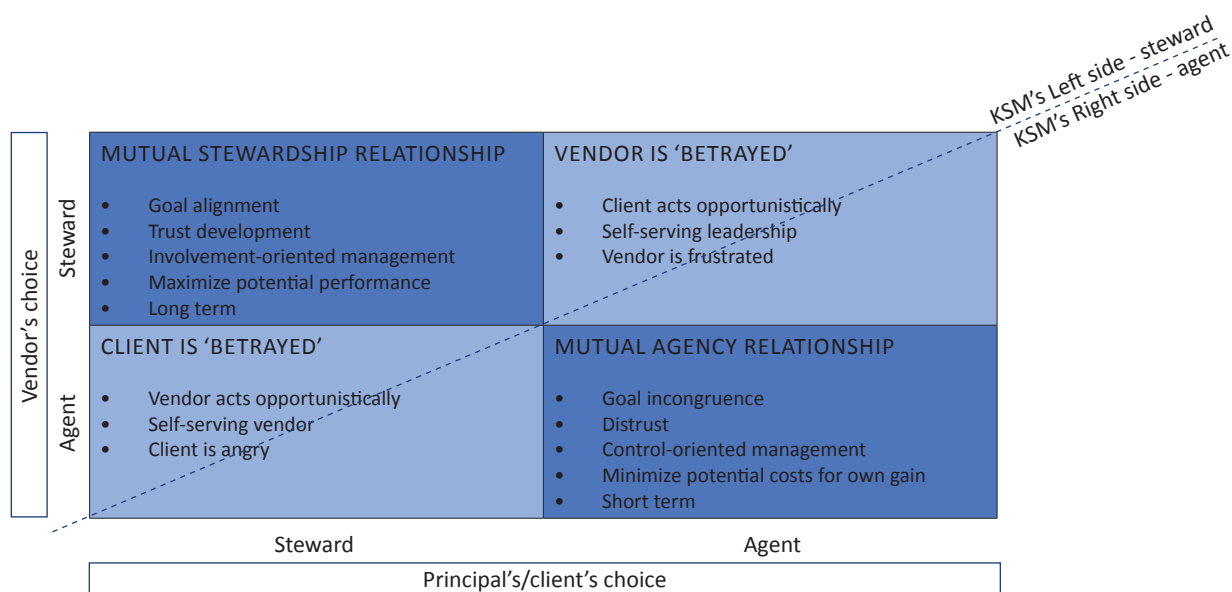


Figure 4.4: the relation between the client (principal) and vendor (agent or steward) choice for either an agent or steward modus of management (after Davis, Schoorman & Donaldson, 1997:a, Segal & Lehrer, 2012) The diagonal line indicates the notion introduced in KSM and implies the differences between the left sided and right sided persons.

BEST VALUE APPROACH

An overview of the main aspects of the Best Value approach is presented in Figure 4.3 as well. The direct comparison between the agency theory and stewardship theory are made before. The theoretical notions of Best Value align almost perfectly with the stewardship theory. The initial analysis of Best Value project at Rijkswaterstaat indicates that in practice also agency theory characteristics are present. In the figure the degree of alignment between Best Value theory and its practice in relation to the two theories is presented.

AGENCY THEORY

An important aspect on which the agency theory and the Best Value approach do not align well is in the definition of control. The focus on control-oriented management in agency theory and the focus of eliminating controlling mechanisms between parties by the Best Value approach could be seen as the essence in which the theoretical notions differ. The corresponding theoretical concepts of agency theory which

envision the realization of this control-oriented management style and solving the goal incongruence through control mechanisms are the result. Control in the agency theory aligns with a definition that can often be found in management literature which describes control as the activity of “comparing actual performance with planned performance, analyzing variances, assessing trends to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed” (Project management Institute, 2013 p.559). Such a management style can be projected on the principal (which has a control-oriented management style) in which efforts will be made to enforce monitoring measures on the agent and implement corrective actions to ensure alignment of goals and compliance with the envisioned project outcomes from the perspective of a hierarchical authority (Slyke, 2006). Control in Best Value is seen as the notion that individuals can take away the free will of other persons by forcing them to think, feel or act in a particular way (Kashiwagi, 2013:b). Realizing the control-oriented management style through these mechanisms is not entirely what the theoretical notions of Best Value try to establish in a client vendor relationship, there are however comparable aspects especially in the realization phase in which the weekly report system is to a certain degree a monitoring system to ensure delivery of a quality service without time and cost deviations (Kashiwagi, 2013:b). Especially the allocation of control differs between the theories; the comparing of performance in the control component of the agency theory is in Best Value more allocated at the side of the vendor. The hierarchical intervention from the principal side is not envisioned in the Best Value approach.

Considering the implementation of the Best Value approach from the reconnaissance through the initial analysis of the project evaluations for the clarification phases indicate that certain elements of the process could be assigned to a more agency theory-based approach towards the project. The notion that it is difficult to realize the more involvement oriented management style in the projects and that this style is sometimes difficult to maintain and that it is not always realized indicate that during the Best Value project a more agency based style of management is present. Indication that the client misses tools to stimulate the vendor to work more effective and efficient without taking a controlling position indicate also that the vendors not always display a true Best Value approach towards projects since this would lead to displaying more performance based behavior. Other aspects that are found during the case study analysis are indicated in Figure 4.3.

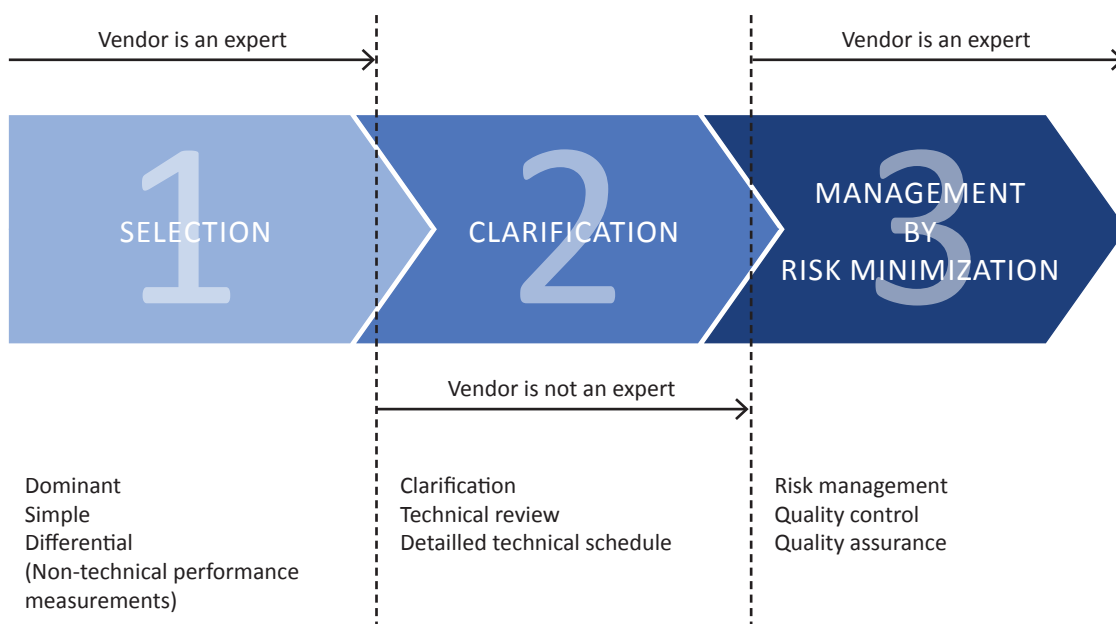


Figure 4.5: the notion of Kashiwagi that in the clarification phase the vendor is also subject of a certain level of control by the client to develop the proposal further. This process scheme also indicates why it is possible that certain agency characteristics can be found during the clarification phase (after Kashiwagi, 2013:b).

STEWARDSHIP THEORY

As indicated, the Best Value approach shares much more commonalities with the stewardship theory. The model of man assimilates the notions that are underlying some of the basic premises of Best Value. Alignment of goals in the clarification phase and a more involvement-oriented management style fit this overall image as well. Considering the corresponding theoretical tenets indicates further that responsibility and autonomy could be aligned with the expert in a leading position in Best Value. This differs when comparing the Best Value selection phase (the first phase) and the filters there which have a relative strong incentive in them to comply with the goals of the principal to become the prioritized vendor. The concept of personal power in which expertise plays an important role can be compared to Best Value as well due to the focus its focus on selecting an expert Best Value vendor. The long term focus in which reputation plays a role in both theories fulfills that the basic theoretical notions of stewardship theory align with the Best Value in theory.

As indicated in the section about the agency theory does the implementation of Best Value sometimes display differences with the theories. A good example is that both the client and the vendor have sometimes the tendency to relapse into a more agency style of management in which control over the other party become central. This does not stroke with both the stewardship and the Best Value theory and indicate also that there is a difference between the theory and its implementation in practice.

INTERMEZZO 2: TRUST

Trust is often perceived as an important aspect for a good cooperation and for delivering a successful project (Cox & Ireland, 2002, Eriksson & Westerberg, 2011, Hartmann & Caerteling, 2010, Kamann, Snijder, Tazelaar & Welling, 2006). From a cross-disciplinary evaluation Rousseau et al. conclude that trust can be defined as “a psychological state comprising the intention to accept vulnerability based upon positive expectation of the intentions or behaviour of another” (Rousseau, Sitkin, Burt & Camerer, 1998 p.395).

BASIC FORMS OF TRUST

Kadefors distinguishes three basic forms of trust that can be used in this study to understand the intrinsic differences between various forms of trust that can be distinguished in Best Value, the agency theory, and the stewardship theory:

- Calculus-based trust is described as a rational choice perspective. This form of trust occurs when the trusting party (client) perceives that the trusted party (vendor) intends to perform an action that is beneficial for the trusting party. Aspects as economic self-interest and calculus-based trust are central in this form of trust. These elements can rely on economic incentives to promote cooperation or contractual sanction when trust is breached. Tangible information is presented as something that communicates what kind of performance and competence can be expected (Kadefors, 2004).
- Relational trust is a form of trust that is expected to arise between individuals who repeatedly interact over time. The relationship is central in the gathering of direct, personal experience and information that is at the basis of relational trust. Emotions and personal attachment influence the relationship and influence the level of trust (Kadefors, 2004).
- Institution-based trust is used to refer to the role that institutions can have in shaping the conditions necessary for the establishment of trust. Important institutions that are mentioned are legal systems, societal norms relating to conflict management and cooperation, and professional practice (Kadefors, 2004).

TRUST IN BEST VALUE

In the Best Value approach trust is seen as “an expectation of another entity with no dominant information and metrics to support it. It is only needed in a non-transparent environment. It increases risk, decision making and reliance upon relationships. Dominant measurements minimize the need to trust others” (Kashiwagi, 2013:a p.283). Compared to the definition of trust presented earlier the Best Value approach emphasizes the need to eliminate the acceptance to be vulnerable and depend on a positive expectation through the utilization of metrics which support the performance of (in this case) the vendor.

COMPARISON BEST VALUE AND THE BASIC FORMS OF TRUST

Considering the principles with which the Best Value operates the notion of trust could be described in the theoretical framework (chapter 4) as a verified trust through past performance information. The use of tangible performance information to select the Best Value vendor at the lowest costs is a form of calculus-based trust.

THEORETICAL FRAMEWORK AND THE BASIC FORMS OF TRUST

Agency theory has the initial position to distrust. Distrust in this theory originates from the concept of opportunistic behaviour. The steward tries to eliminate this basis of distrust through the use of incentives, monitoring and control mechanisms to ensure goal compliance of the agent. These aspects lead to what in the calculus-based form of trust is described as a mechanism for trust.

Stewardship theory embraces the concept of personal power and trust in general which are in this theory established through shared culture and norms, and by giving the steward responsibility and autonomy. These kinds of mechanisms align better with the characteristics of the description of Kadefors' relational trust.

4.7 CONCLUSION

This chapter saw the development of the theoretical framework. This framework is a basis for further analysis of the application of the clarification phase of the Best Value approach and a basis for developing an understanding of the process of the clarification phase. The second research question was central in the development of the theoretical framework for this study.

2. What selection of relevant theoretical perspectives could be used for the theoretical framework underlying the clarification phase of the Best Value approach?

Central in the selection of the theories for the theoretical framework is the understanding of the clarification phase as developed in previous chapters. The clarification phase is concerned with the development of the proposal of the vendor to the client and is by van Duren considered as one of the filters and safeguards of the Best Value approach. Through the process of the clarification phase a selection of products is delivered. The interaction between client and vendor and the process of developing the envisioned products during a project are central in the agency and stewardship theory. These theories have been selected because they fit the characteristics of the implementation of the clarification phase as introduced in the previous chapter (agency theory) as well as comply with the Best Value approach from a theoretical perspective (stewardship theory).

Agency theory is often used as a theoretical framework for the structuring and managing of contractual relationships. It is concerned with the relationship between one party (the principal) which delegates work towards another party (the agent) which performs the work. Central concepts in the agency theory are moral hazard, information asymmetry, and contractual opportunism. Transfer of risk, monitoring and control mechanisms, reward systems, and reputation are introduced as mechanisms to reduce opportunistic behavior and create goal alignment between principal and agent.

Agency theory has some important misalignments with the Best Value approach when considering both from a theoretical perspective. An important difference is the focus on control-oriented management styles by the agency theory and the efforts Best Value makes to eliminate control based mechanisms between client and vendor. Considering the implementation of the Best Value approach, one can state that some agency theory elements can be recognized, such as a (temporary) relapse into controlling management attitude of the client and a more controlled position of the vendor.

Stewardship theory is often seen as a theoretical counterweight for the more economic based agency theory. Comparable to the agency theory, the stewardship theory is centered on the relationship between one party (the principal) that delegates work towards another party (the steward) which performs the work. Stewardship theory has been introduced as a means to define relationships based on behavioral premises. Stewardship theory is concerned with the relationships and behaviors that are often discounted in organizational theories. It emphasizes the collective, is pro-organizational, and envisions contractual behavior in which a focus exists on goal convergence, unlike the agency theory, which focuses on self-interest. Important assumptions of the stewardship theory are that long-term (contractual) relations are developed based on trust, reputation, collective goals, and involvement, where alignment is an outcome from mutual relations.

The stewardship theory shares many commonalities with the Best Value approach when considering them both from a theoretical perspective. Alignment of goals, a more involvement-oriented management style, and the long term focus predicted by the stewardship theory are examples of important elements on which this theory displays alignment with the Best Value approach. Considering the implementation of the Best Value approach at Rijkswaterstaat it is concluded that there are also elements or moments during the clarification phase in which certain theoretical concepts do align more with the agency theory (i.e. the control-oriented management style the client and vendor sometimes relapse to). This can be a result of the notion presented in Figure 4.5 that promotes a certain level of control and management during the clarification phase. This can also contribute to the difficulty of maintaining certain roles (the vendor is officially in the lead) and an important reason why agency characteristics are observed during the clarification phase.

Compared to the principal-agent relationship where personal interest comes first, the principal-steward relationship is concerned with being accountable for something larger than the individual gain. The 'model of man' underlying the stewardship theory is therefore also different from agency theory. The focus shifts towards a steward whose behavior is ordered in such a manner that pro-organizational, collective behavior with higher utility than individualistic and self-serving behavior is created and sustained. The agency theory is embedded in the theories that underlie the New Institutional Economics which offer more embeddedness and a toolbox to ensure aspects such as alignment of goals between client and vendor (e.g. assignment of risk, reward systems, and emphasis on contractual arrangements). In the stewardship theory, this toolbox is less present or developed and based more on notions such as responsibility and accountability.

In sum, from a theoretical perspective the Best Value approach aligns to a large extent with the stewardship theory in the approach of the client-vendor relationship. Furthermore, it is found that what is introduced as a 'true stewardship relationship' is a relationship that is located in the Best Value quadrant of Figure 4.4, in which Best Value tries to establish a vendor controlled environment. Considering the initial insights in the implementation of the clarification phase there are also some coherences with the agency theory in the implementation of this theory (i.e. lacking information exchange during the clarification phase, reversion back into control-oriented management styles, and lacking trust regarding the performance of the vendor). Due to their theoretical and practical applicability, these theories have been selected to analyze the documented case studies, as well as to help understand the actual use of the Best Value approach.



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CASE STUDIES

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5.1 INTRODUCTION

Central in this chapter is the third research question which is related to the actual implementation of the clarification phase in projects of Rijkswaterstaat. To gain an in-depth understanding of the implementation of the clarification phase a multiple case study is designed and operationalized to answer the following research question.

3. How did Rijkswaterstaat and their vendors implement the clarification phase of the Best Value approach and what were the results?

An important part of this study is the use of case studies to develop a better understanding of the use of the clarification phase in the Best Value approach at Rijkswaterstaat. An initial insight was already developed with the help of project documentation during the reconnaissance which focused on available project evaluations. The case studies are used to gain additional understanding of the problems underlying the overrun of the clarification phase planning. The planning overruns can be seen as a symptom that there is something going wrong in either the planning or the process of the clarification phase.

According to Yin a case study is “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009, p.18). In this study the case studies are used according to this definition; to investigate the phenomenon in more depth in the real-life context at Rijkswaterstaat. Case studies are especially useful in the context of this study since they are used to retain a holistic and the meaningful characteristics of the real live events (Yin, 2009). The nature of the case studies will be more of an explanatory kind to explain how and why the current clarification phases at Rijkswaterstaat did not meet the initial planning (Yin, 2013).

The overall goal of the case studies is to acquire insight in the content of the clarification phase when it is applied. This means that insight in the processes, the development of the products, and the end products of this phase is needed. It is expected that through interviews these insights can be developed and problems can be found that are at the basis of the planning overruns of the clarification phase. The theoretical framework shall play a central role to understand and interpret the findings from two contrasting perspectives and add value to the overall conclusions.

For the case studies a protocol is developed to guide each case study. The protocol for the procedure is seen as a tool to enhance the reliability of the case study research and the collected data during the process. Using a protocol enhances the possibility to compare results over the case studies and to generalize the findings to the general process of the clarification phase (Yin, 2003, Yin, 2009, Yin, 2013). In the following sections the case study design is introduced (5.2). After this introduction the selection criteria are presented that will be used to select four cases (5.3 & 5.4). After this section is the case study process further elaborated in terms of the procedure (5.5) and the method that will be used for the analysis (5.6). The results (5.7) and the corresponding analysis (5.8) are then following by a considering of the validity and reliability of the findings (5.9) and the conclusion (5.10).

5.2 CASE STUDY DESIGN

For this study a multiple case study design will be used to analyze the implementation of the clarification phase of Best Value at Rijkswaterstaat in different projects. In general is the evidence gathered with a multiple case study more compelling and are the overall results considered to be more robust (Yin, 2009). Important arguments to select more cases than one lie in the premise that it enhances the likelihood that a case study reaps results ('not all eggs are in one basket'). It furthermore adds to the possibility of direct replication of the results and thus the generalizability of the findings. As a result the conclusions will be more powerful and when multiple cases lead to comparable conclusions the study will result in an enhanced external generalizability (Yin, 2003).

Yin makes the distinction between embedded and holistic case studies. Embedded case studies design is concerned with one or more than one unit of analysis within the particular case. An embedded case study can serve as an important tool to focus on a case study inquiry. A problem can arise with embedded case studies when the study fails to return to the larger unit of analysis. A holistic design is concerned with examining only the global nature of the case. A holistic design is considered to have advantages when there is no logical subunit or when the underlying theory of the case study is in itself holistic. A typical problem with such an approach is that the study remains on an abstract level and does not give clear results (Yin, 2003, Yin, 2013).

The cases could be interpreted as an embedded case study because the object of study is the clarification phase which is embedded in the overall Best Value process. During the case study a focus will be allocated at the side of Rijkswaterstaat and on the side of the vendor (project environment). Both processes and products are a shared object between these two main parties.

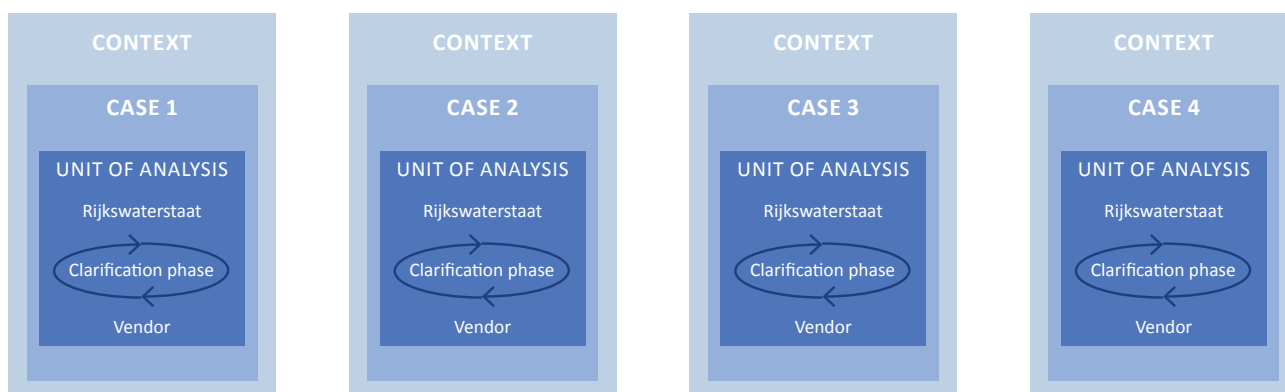


Figure 5.1 Four embedded cases (adapted from Yin, 2013).

5.3 CASE STUDY SELECTION CRITERIA

The selection of projects is an important first step in the case studies because it sets the initial boundaries of the research sample that will be analyzed further in the study. Eisenhardt notes that “cases may be chosen randomly, random selection is neither necessary, nor even preferable” (Eisenhardt, 1989:a p.537). The selection of cases will therefore not be performed in a random manner but will be selected in a structured approach to optimize the generalizability and representativeness of the findings. According to Yin two or three cases, thus a multiple case study is better since it reduces the dependency and vulnerability on data of one single case (Yin, 2009). Above this number there is no fixed number that can be considered to be ideal, but a range of four to a maximum of ten is advised by Eisenhardt (Eisenhardt, 1989:a). From this perspective a selection of four projects will be used to start the case study. The following criteria are used to select four cases on which the focus will be on during this study (ranking on importance):

1. The project has to be carried out using the Best Value approach for the entire project. Rijkswaterstaat also experimented with applying only the clarification phase in a more traditional procurement setting. For generalizability and representativeness of the results it is better to align this important contextual setting. Therefore should the clarification phase be embedded in an overall Best Value approach.
2. The four cases should have finished the clarification phase when the case study research is initiated. This criterion is used to avoid planning problems during this study as a result of planning overruns of the clarification phases in selected projects.
3. The progress of the project over time is considered as a criterion as well.
 - The first sub-criteria in this criterion is to select projects which are finished because it enables the possibility to consider the role of the clarification phase and the quality of the products in perspective of the rest of the project.
 - The second sub-criteria is when the cases are not finished they will be ranked further in perspective of most recent finished clarification phases because this will contribute to acquiring the most current state of the clarification phase implementation. The Best Value approach is enhanced by Rijkswaterstaat and the most recent project gives the most recent insight in the state of affairs.
4. A diverse section of the construction and engineering market. This means that in the selection of project the selected project represent a wide as possible representation of market parties; when possible four different vendors.
5. Rijkswaterstaat is implementing the Best Value procurement to select vendors for ‘Design & Construct’ (DC) contracts and engineering services (in Dutch: ingenieursdiensten). The selected cases should preferably represent a balance between ‘DC-projects’ and ‘engineering services-projects’ to optimize the cross-case pattern analysis of the results; so two of each.

When the criteria do not lead to a clear prioritization, the project that scores best on higher ranking criteria will be prioritized as a selected case.

5.4 CASE STUDY SELECTION

The presented selection criteria of the previous section are used to select four cases for the multiple case study. Four cases are considered by both Yin and Eisenhardt as sufficient to draw conclusions from in a multiple case study approach. In Table 5.1 the Best Value projects which have a finished clarification phase are presented and limited to four according to the set selection criteria. The scores are based on total number of criteria met by the various projects.

Pr

As can be concluded from the Table the criteria result in the selection of the following four projects:

- Project 1 (Design and construct).
- Project 2 (Design and construct).
- Project 3 (Engineering services).
- Project 4 (Engineering services).

The general background of the various projects is briefly introduced in Attachment B to give a background of the goal and content of the selected projects. In Figure 5.2 the projects are presented on a map with some basic information.

Table 5.1: available project for case studies at Rijkswaterstaat in relation to the criteria introduced earlier, dark blue indicates that the project meets the criterion.

Project	1. Best Value project	2. Clarification phase is completed	3. Finished projects followed by most recent finished clarification phases (based on planning)	4. Diverse selection of vendor	5. Design and Construct project	5. Engineering services project	Preferred case study projects (based on total score; two DC & two engineering services)
Project 1			4	1			Score: 5/5
Project 11			3	2			Score: 4/5
Project 3			2 Project finished	3			Score: 5/5
Project 5			10	4			Score: 4/5
Project 6			11	5			Score: 3/5
Project 7			8	6			Score: 3/5
Project 4			1 Project finished	2			Score: 5/5
Project 2			9	7			Score: 4/5
Project 10			7	8			Score: 3/5
Project 9			6	9			Score: 3/5
Project 8			5	10			Score: 3/5

5.5 CASE STUDY PROCEDURE

The case study procedure has been developed as part of the case study protocol to enhance the consistency in how the actual case studies are performed. For the case studies the interviews will be an important tool to gather data. These interviews will be governed by a protocol with central questions and analysis method that enables a semi-structured nature of interviewing and helps to ensure consistency through all interviews, the analysis, and add to reliability of the case study research (Yin, 2013).

DATA COLLECTION PROCEDURE

The cases are further analyzed by collecting data from various sources. The analysis of the evaluations presented in Chapter 3 is an important source of insights in the various clarification phases of the Best Value projects. These evaluations are also partly related to the selected cases and have been used to develop the initial insight in the implementation of the clarification phase at projects of Rijkswaterstaat. Project documentation (including the evaluations) and interviews with key persons will be the main methods to acquire information and insights in the selected projects.

Project documentation

Project documentation will be used to gather background information of the cases by evaluating relevant documents such as requirements of the client and delivered documents of the vendor. The project documentation is mainly used to develop a general insight in the projects and serve as a background and basis for the interviews. The project documentation is also analyzed to develop insight in the tender are the products of the clarification phase analyzed in the view of the Best Value approach. The analysis of the documents includes the tender specification as produced by the client.

Specific strengths of documentation, including the evaluations, are that they are stable and can be revisited repeatedly to acquire information and draw conclusions from. Furthermore is the project documentation created in the light of the project and not specific for the case studies and are as a result more unobtrusive. A disadvantage can be that the documentation can contain certain biases from authors; especially the evaluations can be subjects to a certain degree of personal biases (Yin, 2013).

Interviews

The interviews will be used to acquire insight in the projects from both a client and vendor perspective by interviewing key persons who were involved during the clarification phase. Key persons are those who were involved in the clarification phase and had a central position in the process and development of the products. These persons have a good position to give an intrinsic and comprehensive overview and insights in the processes and the development of the products of the clarification phase.

An important goal of the interviews is to establish insight in the process and produced products of the clarification phase. Especially the interviews will play a central role in formulating conclusions regarding the implementation of the Best Value approach regarding initial insights

that the theoretical notions fits more with a stewardship style but the practice has certain agency characteristics.

Important strengths of the interview method is that it can be focused directly on the research topic and can give specific insights in the cases to provide explanations and personal views which cannot be found in the documentation of the project (i.e. how processes during the clarification phase were filled in). Possible weaknesses relate to lacking response bias, poor questioning, or reflexivity in which interviewees give desired answers (Yin, 2013). These weaknesses are expected to (partly) be overcome by using a protocol for the questions, give interviewees an overview of the content of the interview to be able to prepare, and start early with invitations so a higher and representative response can be realized.

The interviews have a semi-structured nature. Where the structured interview has a high structure and rigid nature the semi-structured interview is more open and tends to allow interviewees to bring up other aspects as well. For the semi-structured interviews a framework has been developed to guide the questions to give some direction to the interviews and enable the semi-structured nature to collect specific data and retain the possibility to acquire additional insights as well.

Interviewees are selected based on their potential insight in the clarification phase of the cases; in general the focus will be on the IPM roles for selecting the interviewees due to their central position in the project (IPM: Integral Project Management). Interviewees invited by e-mail; the e-mail that has been used can be found in Attachment C. For each case four persons have been sent this invitation to take part in the research; two persons representing the client and two representing the vendor. In total 11 persons (73%) reacted positively which represents 12 of the 16 interviews (75%). After a positive response a moment was scheduled for the interview. For each case at least two interviews were held; at least one with the client side and at least one with the vendor side. In Attachment D an overview is given of the interviewees per case.

In attachment E the overview of the content of the interviews that has been given to the interviewees in advance of the interview is included. This overview has been used to give the interviewees an insight in the content of the interview. This enabled them to prepare for the interview and reduce the reflexivity when answering questions of the interviewer. Attachment F gives the protocol for the interview which is the general introduction and overview of the questions used to give the interviews structure. It is indicated when questions are specific for client or vendor interviewees.

With permission of the interviewees the interviews are recorded. From these recording transcripts are made that are verified with the interviewees to guarantee accurate and correct results of the interviews. The transcripts are the main overview of the entire responses of the vendors. These overviews are not included in this report to limit the size of the report and to guarantee discretion and anonymity for the individual interviewees.

5.6 METHOD OF ANALYSIS

The method of analysis will be focused on the information gathered during the interviews. It is especially this data set that will be analyzed later in this chapter of the report. Project documentation has been used to gather an insight in the various cases and acquire a background for the interviews but it is mainly the data of the interviews that will be used to develop the intrinsic understanding of the processes and development of the products.

ANALYSIS OF THE INTERVIEWS

Analysis of the data that will be acquired by the interviews will be an essential part of the study to gain an intrinsic understanding of the processes within the clarification phase. For the analysis of the data two main steps are used to process the data. First a within-case analysis will be used to report and structure the findings for the case at hand. The within-case analysis will help structuring the significant amount of data that is available after the interviews (Eisenhardt, 1989:a, Dul & Hak, 2008). The second step relates directly to the within-case analysis but is concerned with the cross-case search for patterns and generalizations of findings to draw overall conclusions. The theoretical framework will play a role in the analysis since it is the framework for analysis to understand the actual implementation of the clarification phase from two perspectives (Eisenhardt, 1989:a, Yin, 2013, Dul & Hak, 2008). The within-case and the cross-case analysis method will be introduced below.

Within-case analysis

Within-case analysis is the in-depth exploration of a single case as it is a standalone entity (Mill, Durepos & Wiebe, 2010). The within-case is considered to be an important first step in understanding and describing the phenomenon in the case study. Even in a multiple case study each case can contribute information to the findings of the entire study. Analysis of the individual cases is thus of interest for the entire study because of both the uniqueness of individual cases and possible commonalities between them (Ayres, Kavanaugh & Knafl, 2003, Eisenhardt, 1989:a, Mill, Durepos & Wiebe, 2010). The within-case analysis will help in the first step towards understanding how the process of the clarification phase within each case was filled in. The in-depth understanding that is created with this analysis can lead to the preliminary conclusions based on the findings in the individual cases. These findings and the results of the within-case analysis are important inputs for the cross-case analysis to generalize the findings were possible. The within-case analysis is initially used to develop a stand-alone understanding, conclusions, and recommendation of each case on which the cross-case comparison to identify commonalities is based, but also to understand unique elements in each case (Eisenhardt, 1989:a, Mills, Durepos & Wiebe, 2010). There are no definitive guidelines or approaches about how to conduct a within-case analysis (Mills, Durepos & Wiebe, 2010). For the within-case analysis in this study several techniques are used such as word tables to analyze the individual cases and structure the findings to create comparable data sets for the cross-case analysis.

Cross-case analysis and patterns

A multiple case study enables the use of cross-case analysis techniques to find patterns in the data. The cross-case analysis is useful to find patterns and generalize findings. The cross-case analysis is closely related to the within-case analysis (Eisenhardt, 1989:a, Yin, 2013). According to Miles and Huberman enhances the combination of within and across analysis of cases the accuracy of the evidence, establishes the generality of the facts and findings, is usable to clarify the relevance of particular findings, helps to test theoretical notions, and generate theory (Miles & Huberman, 1994). Overall the analysis is likely to generate more robust findings compared to a single case study only, or when conclusions are drawn from within-case analysis only (Yin, 2013). The structural analysis during the cross-case evaluation emphasizes to search further beyond the initial conclusions and impressions. The contextual influences on the various cases are reduced by generalization of the

findings above the individual level. During the analysis differences and correlations are appointed to evaluate the processes that have taken place during the clarification phase of the various projects and have led to certain projects and delays compared to the proposed planning.

For the analysis of the cases various methods will be used to gain an intrinsic understanding of the data gathered and develop sufficient correlations to draw conclusions regarding the individual cases and across the various cases. Methods that are used for both the within-case analysis and the cross-case analysis will be briefly introduced below.

Explanation building

Explanation building is a technique for the analysis of data from case studies to develop explanations about the occurrences in a certain case (Yin, 2013). An explanation in a case study is intended to act as an answer to a specific research question (Mill, Durepos & Wiebe, 2010). In this study this relates to the intrinsic understanding how the process of the clarification phase is filled in and what the reasons are for the structural exceeding of the planning. To explain something means here “to contribute to fostering an understanding of it” (Mill, Durepos & Wiebe, 2010 p.368). Something is here seen as the clarification phase with it envisioned products and the corresponding process to produce them. The explanations add to the understanding of the phenomena observed in the case study. The cases will be used to generate an understanding of certain causality between the observed overrun of the planning and reasons why this occurred or not; the explanation. Contrastive explanations can be formulated based on the contrasting theoretical framework which adds to the exploration of rival explanations (Mill, Durepos & Wiebe, 2010, Yin, 2013). To a certain degree the expectations are shaped by the initial exploration of the implementation of the clarification phase through the analysis of evaluations.

Time-series analysis

Time-series analysis is a technique that can be used to understand the match between the observed and a rival trend. In theory these rival trends are observed against theoretical patterns or rival explanation (Mill, Durepos & Wiebe, 2010, Yin, 2013). During this study the time-series analysis will be operationalized in another manner; they are used to understand the proposed pattern (the planning) against the realized planning (or time-series) and were a significant part of the interviews. In Attachment G the overview of the planning per case is included as a tool to let the interviewees explain the process and to gain insight in important moments in which deviations occurred (main input from the interviewees is in these planning as well).

Cross-case synthesis –word table

Yin describes cross-case synthesis as a type of analysis for multiple case study designs and can be seen as an interpretation of the cross-case analysis. A specific method proposed by Yin is the use of word tables to analyze the available data from the individual cases. Word tables use one or more uniform categories to order and display data from various cases. The tables can be used for a qualitative analysis and utilized to draw cross-case conclusions about categories at hand. The use of word tables for the cross-case analysis is relying strong on argumentative interpretations (Yin, 2013). An empty word table is depicted in Figure 5.3.

Figure 5.3: empty word table (adapted from Yin, 2013).

	Case study 1	Case study 4	
	Interview 1	Interview 2	Interview 11
Data topic x				
Within-case analysis				
Cross-case analysis				

Envisioned results

The analysis of case documents and especially the results of the interviews are envisioned to result in a good insight in the processes of the clarification phases of the various cases. Based on the various analysis techniques is it expected that an overview of conclusions and recommendations can be presented as a result of the case studies. Especially the recommendations to improve the efficiency and enable project teams to better utilize and plan this period will be valuable input for the development of a model which represents the improvements for the phase. The methods presented above are schematically presented in Figure 5.4 to indicate the process of the case studies.

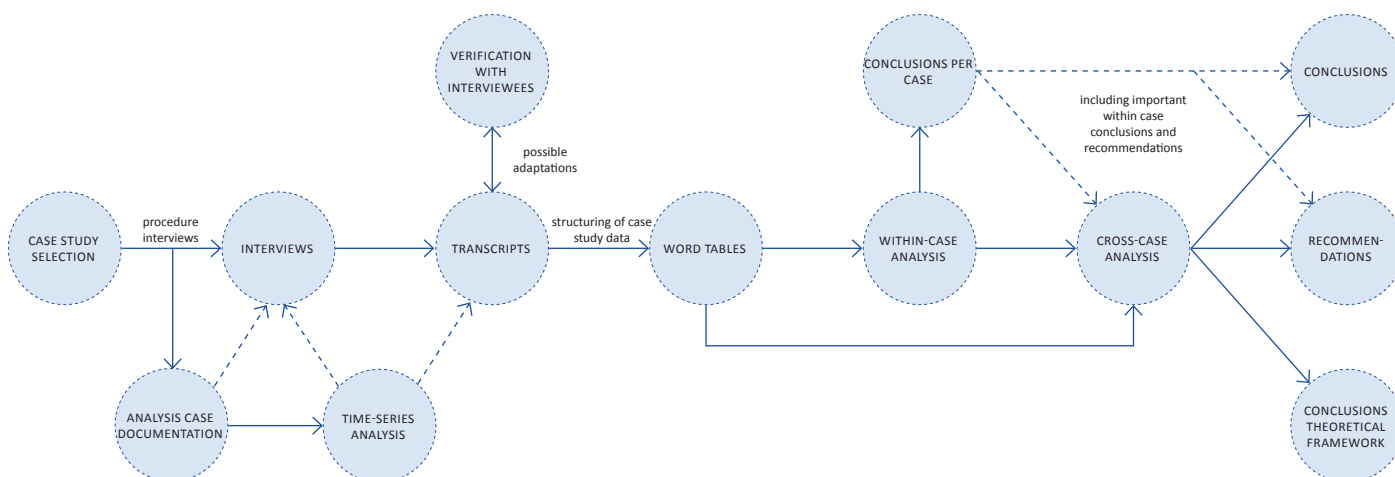


Figure 5.4: overview process case studies.

5.7 RESULTS

In this section the results of the case studies will be presented. First the results of the project documentation will be presented briefly followed by the results and analysis of the interviews.

PROJECT DOCUMENTATION

Project documentation has been analyzed to develop insight in both the tender specifications of the client and the products of the vendor as a background for the interviews. As a result of this analysis the products of the vendor in the clarification phase are aligned against the envisioned products to gain insight in whether the products of the clarification phase support the envisioned process of the Best Value approach.

The products are considered from the perspective of dominant information and if they are detailed on the aspects which are perceived as key for the execution (e.g. elaboration of the top risks for the project goals, quality management system of the vendor and the alignment with the client). Dominant information must be interpreted from the perspective of Best Value and means that in the products the topic is presented so simple, apparent, relevant and is so important that it can predict the final outcome and leads to the same conclusions by everyone (Kashiwagi, 2013:b). Level of detail is additionally included since not all parts of the products are relevant to detail to a large extend. These used scores are as following:

- -2: Not included in the products.
- -1: Too limited included in the products (not dominant or demanded aspects are missing).
- 0: Meets to a high degree the envisioned products of the clarification phase.
- 1: Concept of dominant information is not leading and/or high levels of detail on topics which do not demand it.
- 2: Concept of dominant information is not leading and/or high levels of detail on many topics which do not demand it.

In Figure 5.5 the results of this analysis is presented in diagrams. As can be seen in the diagrams it is observed that there are notable differences in the products per case. Some of the notable results of the analysis are presented per case below.

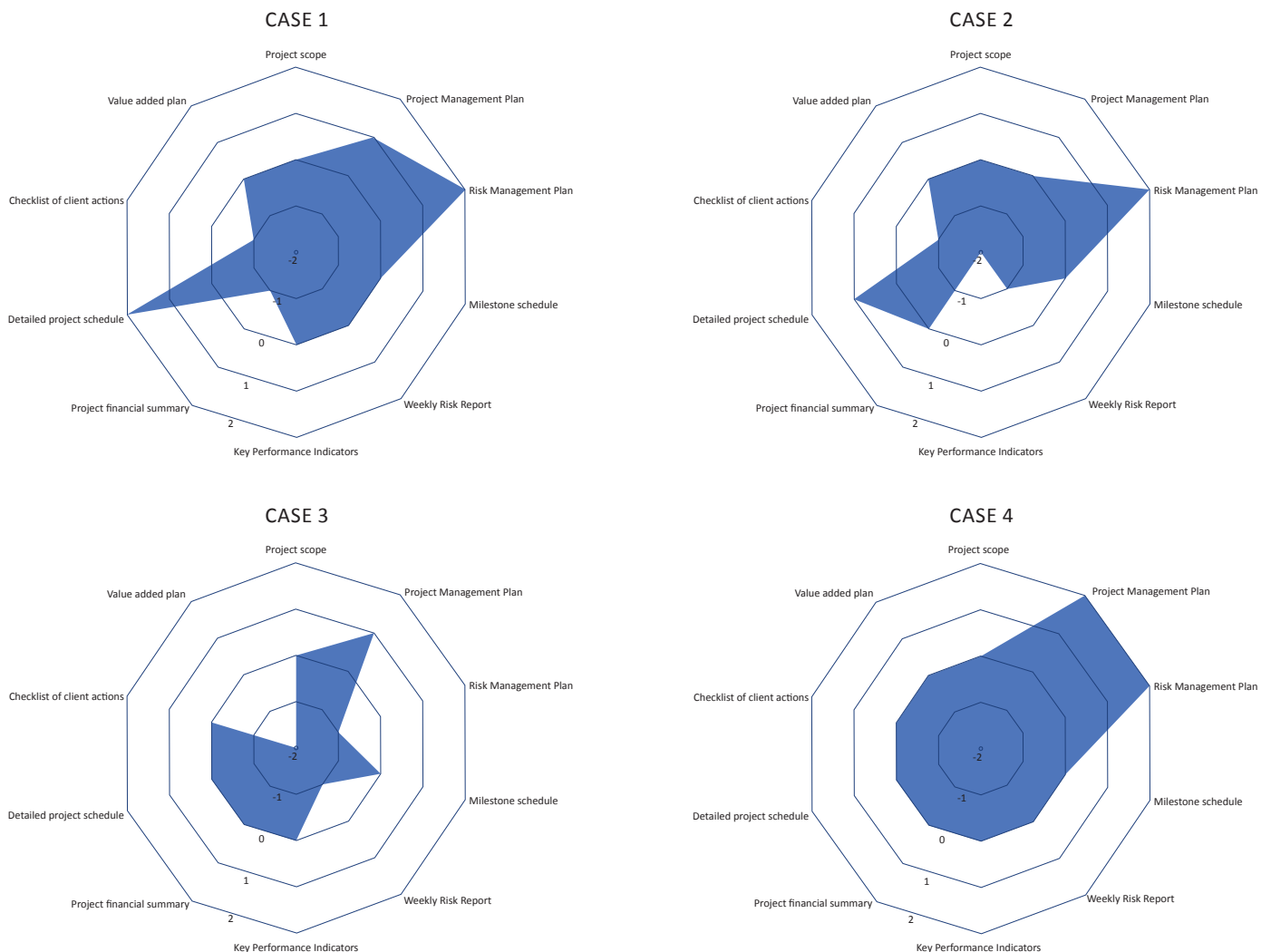


Figure 5.5: analysis of the products of the clarification phase against the envisioned products by Best Value on a five point scale.

Case 1

- The project financial summary is not clearly included in the products.
- The project management plan and the risk management plan are very extensive and detailed.
- The checklist of the actions of the client is not included clearly in the documents. The meetings and checklists of the client are too implicitly included in texts and are not dominantly presented in the products.
- The project schedule is very extensive and detailed for the entire process. A detailed planning is even included for the actual realization of the project (during the interviews the client interviewees indicate that the level of detail of the planning exceeds the envisioned necessity).

Case 2

- The checklist of the client only includes a scheme of meetings in which the client is expected to be present. Only implicitly are some indications made when something is expected during the process of the execution.
- The weekly risk report is not included in any product and not described how it is going to be included in the process of the execution phase.
- The key performance indicators are missing entirely from the products of the clarification phase.
- The project schedule is very detailed.
- The risk management plan is elaborated for every risk that is signaled in this phase.

Case 4

- The project management plan is very detailed and excessive. It contains a very detailed elaboration of the requirements and includes many additional elements that are not requested directly or contain so much detail that the outline is missing (e.g. information management is elaborated extensively).
- The risk management plan is very extensive and detailed for all client and vendor risks identified during this phase.

Case 3

- The risk management file misses risks that are introduced in the participation plan. The risks that are included in the risk management plan (all other risks) are elaborate and very detailed.
- The weekly risk report is not introduced and specified when for example this process is started or how it is incorporated in the process of the execution.
- The value added plan is not elaborated.

Conclusion

It is concluded that in general the project management plan and the risk management plan tend to be very detailed and go far beyond the requirement of products on outlines by the client. Regarding the project management plan it is concluded that vendors have difficulties to include the actions of the client in a comprehensive manner in the products since in project management plans for traditional project this is often not a requirement. The quality management system of the vendor has to be adapted towards the demands of the client. This is an intensive process which often demands high levels of detail to sufficiently include these processes in the project management plan. Regarding the risk management plan can it be concluded that there is no focus on the top risks which threaten the project goals but instead all risks are detailed during the clarification phase regardless of the risk score. This means that in the various cases hundreds of risks are detailed. For both the project management plan and the risk management plan can it thus be concluded that there is a lacking focus on key aspects which require details which leads to high levels of detail in (almost) entire products.

Notable is that some products that are envisioned by the Best Value approach are missing entirely in the products of some cases. An example is the Key Performance Indicators which can be seen as an important product of the clarification phase for the execution of the project. Also the incorporation of the weekly risk report in the products of the clarification phase (e.g. project management plan and link with the risk management plan) is a new tool which is specific for Best Value execution phase and is not included in all cases. This may be the result that the vendors do not have any experience with this tool or the execution of a Best Value project which can be a reason some products are missing, not included sufficient, or included with difficulty in the products.

INTERVIEWS

Within-case analysis

The within-case analysis is the first start of the in-depth exploration of the cases. First efforts were made through the project documentation but the main insights are gathered during the interviews. Word tables were constructed based on the transcripts of the interviewees. Per case an overview and preliminary conclusions are drawn based on the analysis of these word tables with the input of the interviewees. These results are included in Attachment H. The within case analysis is an important basis for the cross-case analysis which is used to gather the main conclusions for the development of a model with the recommendations to improve the go through time, effectiveness and efficiency of the clarification phase.

Cross-case analysis

The basis for the word tables was created during the within-case analysis. The word tables and the results of the within-case analysis are utilized in the cross-case analysis as well. The four cases are analyzed to generate a basis for recommendations. The results of the cross case analysis are presented in five main categories; prior experience with Best Value, planning, project team and roles, products, and process. In the following sections the tables of various topics are presented with the main results regarding the cross-case analysis, recommendations, and the relations with the theoretical framework (agency theory and stewardship theory). Per table a brief conclusion is presented regarding the results.

Prior experience with Best Value

Table 5.2: Experience with Best Value

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
83% of the interviewees had no prior experience with the Best Value approach before the case they were involved with for the clarification phase. Only 8% had experience with the clarification phase.	Client/vendor: • When there is lacking experience with Best Value in the IPM teams hire Best Value expertise (vendor).	<ul style="list-style-type: none"> • Preparing of planning • Iterations • Composition project team • Goal of the clarification phase • Products clarification phase • Clarification phase process • Clarification phase roles 			

It is concluded that experience with the Best Value approach in the IPM (Integral Project Management) teams is very low (only 17% of the interviewees had experience with Best Value; and only 8% of the interviewees had experience with the clarification phase). When there is experience with Best Value project the lessons learned are in general implemented in the next Best Value project. These findings seem to confirm results of earlier research by van Duren which indicated the limited experience and understanding of Best Value (Duren, 2013 p.52).

Planning

Complexity of the project

Table 5.3: Complexity of the project

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
92% of the interviewees think that there is a relation between the duration of the clarification phase and the complexity and size of a project. <ul style="list-style-type: none"> • The cases are often not complex in terms of content or from the perspective of expertise necessary to complete the project. • Interfaces between work of the vendor and client contribute to the complexity of the assignment. • The size of the assignment or the number of disciplines that should cooperate during the project's execution add to its complexity. • Stakeholder and the project environment can add to the complexity of the project. 	Client: • The indicative duration of the clarification phase should incorporate the estimated complexity and size of the project. Vendor: • Planning of the clarification phase should incorporate the insights in the complexity and the size of the project.	<ul style="list-style-type: none"> • Budgeting of the clarification phase • Preparing of planning • Iterations • Planning deviations • Products clarification phase • Clarification phase process 			

It is concluded that complexity and the size of the project are important factors to consider for the duration of the clarification phase. The number and complexity of interfaces between client and vendor are important, but the interviewees also indicate that aspects such as the number of work packages, the creation of a shared vision on the project, and the scope of the project (and how easy it is to formulate the scope) influence the duration of the clarification phase. Overall agrees 92% of the interviewees that the size and complexity of a project add to a certain extent to the duration of the clarification phase and that therefore the indication for the duration of this phase should be project specific.

Preparing of the planning

Table 5.4: Preparing of the planning

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
In three cases the interviewees appoint that the eight weeks indication for the duration of the clarification phase by the client is adopted as a leading indication for the planning of this phase. <ul style="list-style-type: none"> • To realize a compact planning the vendor should take the lead. • The client should apply short response lead time (should be included in the contractual documents). • Investments made during the clarification phase will be regained after the clarification phase (commercial interest to set a clear project scope); alignment between client and vendor is considered important. • Period in which the bids are valid should be taken into account for the planning (gestanddoeningstermijn), and should be extended when necessary. • A selection of interviewees indicates that their own processes are leading in the planning; only one interviewee indicates that the planning and duration are based on their processes. • Holidays make the planning more difficult. • Various interviewees indicate that the clarification phase should take as long as necessary. 	Client: • Indication of eight weeks is often adopted as leading for the planning. • During the clarification phase the client has to consider extending the period in which the bids of all vendors are valid. • The contractual response lead times of the client make it difficult to plan the clarification phase. • High focus on time and high time pressure put additional pressure on the clarification phase and force vendor's to take over the eight weeks. • Deadlines are imposed and difficulties to plan the clarification phase due to holidays. Vendor: • Own processes are not always leading, should be the basis of the planning. • Deadlines are imposed and difficulties to plan the clarification phase occur due to holidays.	<ul style="list-style-type: none"> • Experience with Best Value • Complexity • Budgeting of the clarification phase • Iterations • Response lead time of the client • Planning deviations • Mobilization period • Products clarification phase • Clarification phase process • Clarification phase training • Elaboration of value added plan • Lead • Communication 			

The eight weeks that given to the vendor as an indicated by the client is in general taken over by the vendor as leading. It is noted that the period in which the bids are valid (gestanddoeningstermijn) plays an important role in the possible duration of the clarification phase. It is concluded that a clarification phase that is planned during the holidays (especially the summer) makes planning of the process difficult.

In general can it be concluded that interviewees indicate that the period should take as long as necessary and that it is valuable for the execution phase to align the client and vendor and set the scope during the clarification phase. The contractual response lead time for the execution phase (acceptatietermijnen) of the client are often interpreted as leading for the clarification phase as well (by the vendor) and make

it difficult to plan within the eight weeks because if these periods are taken into account the products should be delivered within three to four weeks according to the vendors.

Budgeting of the clarification phase

Table 5.5: Budgeting of the clarification phase

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the vendors indicate that the clarification phase was budgeted in the overall bid and 100% of the vendors indicate that the budget was not sufficient to cover the costs of the clarification phase. To realize a compact planning it is indicated by the vendor should take the lead.</p> <ul style="list-style-type: none"> If there is no specific request by the client for a specification of the vendors work with internal budgets for the clarification phase. The cost overruns are significant; up to twice the initial budget for the clarification phase. Vendors also indicate that they pay an 'educational' fee due to lack of experience and the will to learn to work with the Best Value approach. It is indicated that when the budget for the clarification phase is approached like a traditional project (cutting costs were possible) it is not likely that the costs are covering the expenses. Important reasons for the overrun are underestimation of the demands in terms of time, scope and detail of the products, and lacking insight in the process. 	<p>Client:</p> <ul style="list-style-type: none"> The client could demand a cost specification in the bid to actively support a budget for the clarification phase for the vendors (facilitating); it remains however the responsibility of the vendor. <p>Vendor:</p> <ul style="list-style-type: none"> Ensure that the processes of the clarification phase and the demanded products are understood sufficiently to plan and budget a realistic process. The clarification phase budget should be included in the bid. 	<ul style="list-style-type: none"> Complexity Preparing of planning Products clarification phase 	<p>Application:</p> <ul style="list-style-type: none"> Demand for more details or distrust can lead to utilization of the power positions of the client to demand more details which lead to (significant) budget overruns (A). Lacking knowledge about the clarification phase lead to budgets that are too low (A). 		

The clarification phase is either budgeted in the bid or through internal budgets which are often included in more hidden posts elsewhere in the bid. The vendors overall understand that the clarification phase is part of the overall project and include the costs in the bid. Based on the interviews can it be concluded that the set budget is in 100% of the cases not sufficient to cover the costs of the clarification phase. Aspects such as the longer duration and the higher level of detail of the products than initially expected contribute to the significant higher costs, which sometimes are as high as twice the initial estimations. The vendors indicate that they are in a learning process and are prepared to pay a learning fee to a certain extent.

Iterations

Table 5.6: Iterations

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>Only 18% of the interviewees indicate that the planned iterations were sufficient to develop the envisioned products.</p> <ul style="list-style-type: none"> Sometimes the client only gets to see the products for the first time at the end of the planning (95% versions). It is indicated that the number of iterations differs per product. In general do the project management plan and the risk management plan take three to six iterations (maximum was eight), while products like the planning and value added plan take less (one to three). Sometimes several iterations on the clarification phase products occur after the phase (process agreements to award). 	<p>Vendor:</p> <ul style="list-style-type: none"> Delivering a 95% version at the end of the clarification phase is too late to ensure products that will be accepted. The number of iterations differs per product. <p>Client/vendor</p> <ul style="list-style-type: none"> When the outline of the products is sufficient it is possible to consider awarding the project with process agreements for specific aspects of the products. 	<ul style="list-style-type: none"> Experience with Best Value Complexity Preparing of planning Planning deviations Products clarification phase Clarification phase process 	<p>Central notions:</p> <ul style="list-style-type: none"> Distrust results in more iterations due to increased demand for details (A). Client uses iterations sometimes as control mechanism (A). Trust develops through iterations (S). Client tends to get involved during iterations (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Sometimes iterations as monitoring systems (A). Vendor should have a high responsibility and autonomy for the number and content of the iterations (S). <p>Application:</p> <ul style="list-style-type: none"> Goals are aligned through the iterations (S). 		

It is concluded that when iterations are planned they are often not sufficient in number or duration to produce the products that are envisioned by the client. Important reasons why iterations are not planned or why the planned iterations are not sufficient are related to the differences in interpretation of the products scope and the level of detail necessary to award the project. Iterations that are made additionally are made after a product had been declined for awarding and are almost in all cases after the original deadline of the planning (when one iteration is planned the products are delivered very late and the client has often no idea what the vendor has produced or is producing).

When iterations are used the vendor interviewees indicate that the products delivered at the end of iterations are not complete and final products yet but the client tends to criticize them as final products which makes it difficult to discuss the products. It can furthermore be concluded that in general the number of iterations or the duration of the iterations that are planned is too low to produce the envisioned products. The number of iterations depends on the product but based on the interviews a general indication is three to six iterations for more complex products such as the project management plan and the risk management plan, and one to three iterations for less complex products such as the planning and the elaboration of the value added plan.

Response lead times of the client

Table 5.7: Response lead times of the client

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>The interviewees conclude that the response lead times of the client are good and do not hinder the progress of the clarification period.</p> <ul style="list-style-type: none"> It is however observed that the response lead times that have been included in the attachments of the contractual documents would make it impossible to do a clarification phase within the advised eight weeks. The response lead times do not align the standards set in the contractual documents (often negotiated during the clarification phase). The vendors indicate that the response lead times are important to know before the planning is created. Response lead times should be compact to facilitate a compact clarification phase. 	<p>Client:</p> <ul style="list-style-type: none"> Include a specific attachment to the tender documents that describes the response lead times of the client during the clarification phase. Client IPM team should have a high availability during the clarification phase to realize short response lead times. 	<ul style="list-style-type: none"> Preparing of planning Clarification phase process Communication 	<p>Application:</p> <ul style="list-style-type: none"> Reduced dependency on legal contracts to enforce behavior; duration of response lead times is limited (S). 		

It is concluded that the response lead time of the client has to be relative short to have an effective and intensive process to produce the products in a relative brief period (for example the eight weeks). It is noted that the contractual response lead times are not used (or not used after discussing them) because it is impossible to produce the products in the clarification phase when the response times of the client are taken into account (contractual response times are up to two weeks for a product). Overall, the vendors are satisfied with the compact response times. Because the process is so intensive, the IPM team of the client notes that it is necessary to be available almost fulltime to accommodate the iterations with the vendor.

Deviations and adaptations of the planning

Table 5.8: Deviations and adaptations of the planning

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>It is notable that all vendors have updated or changed their planning during the clarification phase.</p> <ul style="list-style-type: none"> In three cases, the planning is updated to accommodate additional iterations. In one case, the planning was updated during legal issues; the duration of the planning was adjusted (more time). The summer holiday causes additional problems (limited availability, not taken into account limited availability, or it acts as a deadline). Planning is adapted according to progressing insight in the scope and level of detail of the products. Planning is updated and/or changed after rejection of the (first) products. A mobilization period and vendors that are not prepared to make a swift start influence the planning also negatively (see also further for the mobilization period). 	<p>Client:</p> <ul style="list-style-type: none"> Do not stimulate a clarification phase during the holidays. <p>Vendor:</p> <ul style="list-style-type: none"> Sufficient iterations should be included in the planning. A clarification phase (partly) in the holiday is not advisable. Manage the expectations and align expectations to ensure the planned products are meeting the expectations of the client. 	<ul style="list-style-type: none"> Complexity Trust Preparing of planning Iterations Mobilization period Products clarification phase Clarification phase process Clarification phase roles 	<p>Theoretical concepts:</p> <ul style="list-style-type: none"> The vendor retains responsibility and autonomy over the planning (S). 		

It is concluded that the planning is often changed during the clarification phase due to a late start of production, changes in insight about the products, the durations of the iterations, and due to differences in expectations when the first products are delivered (often late in the process). Important reasons for changes are the lack of insight in the products that have to be produced (scope and level of detail) and additional iterations which are not foreseen in the planning need to be included. Changes in the planning are made due to progressing insights in the demanded products or the expectations of the client which results in adjustments in planning (e.g. adding iterations). When this does not happen during the phase it happens often at the end of the original planning when the first products get rejected. The most important reason for changes in the planning that is mentioned during the interviews is the rejection of products because they do not meet the expected level of detail (e.g. risks) and scope (missing interfaces) of the client. As a result, it can be concluded that the lack in clarity concerning the content and level of detail has a major impact on the overrun of the planning.

In one case, products were demanded that are part of the actual work (due to high time pressure) which made the phase additionally difficult to complete. After it becomes clear that the planning cannot be met or when it becomes evident that at the end of the phase the products do not meet the envisioned standards, new schedules are presented. The new planning is often presented to the client. For the client, it is often clear that the planning is updated since the old one is not feasible anymore. It is indicated by interviewees that the clarification phase should not be planned in or around a large holiday period. Furthermore, it is advised to include more iterations in the planning.

It is noted that the alignment of the expectations for this phase has to be arranged much earlier in the process to make a realistic planning. The client indicates that there should be sufficient time to review the products; the vendor indicates, however, that it is important to retain a compact planning and process. The kick-off and training should be held as soon as possible. The vendor should take the lead and commitment on the products and the envisioned content and level of detail should be realized early in the process of the clarification phase.

An observation by interviewees that could be an explanation for the observed differences in planning overrun between Design & Construct and Engineering Services projects is the nature of the project. Design & Construct projects are perceived to be more specific in terms of client demands, while Engineering Services are in a phase where more choices need to be made regarding, for example, the design. The scope in Engineering Services is, as a result, not as clear as it often is in Design & Construct.

Project teams and roles

Composition project team

Table 5.9: Composition project team

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK <small>(A = Agency theory S= Stewardship theory)</small>	CLIENT	VENDOR
<p>Concerning the characteristics the interviewees give a variety of reactions. Notable is that one interviewee indicates that only a limited number of their employees are able to fulfill an expert role in the IPM team (about 10%). The following aspects regarding the experts/IPM team were mentioned in general:</p> <ul style="list-style-type: none"> • Be able to retain their role during the clarification phase. • Be able to take a lead position (vendor). • Be able to think SMART (dominant) and make structured choices (vendor) • Be able to take a facilitating position; enable the vendor to be successful (client). • Be able to retain a critical position to identify blind spots in the pre-planning and elaboration of the bid. • Involved persons should be able and need to want to do thing different that in a traditional project (being open for innovation). • Commitment to the project and thus the Best Value approach. • Know where their expertise is and were not (vendor). • Certain degree of flexibility. • Have process oriented qualities as well as expert (not only expertise concerning the products). • Have a high availability during the clarification phase. 	<p>Client:</p> <ul style="list-style-type: none"> • Capabilities to facilitate and enable the vendor to be successful. • Be critical to identify blind spots in the elaboration of the bid and the pre-planning. <p>Vendor:</p> <ul style="list-style-type: none"> • Be able to take the lead. • Be able to think SMART (dominant) and make structured choices. • Know where their expertise is and were not. <p>Client/vendor:</p> <ul style="list-style-type: none"> • Be able to retain a role during the clarification phase. • Be open for innovation and do things differently compared to traditional projects (to adopt the Best Value approach); commitment to the project. • Have process oriented qualities as well (not only production capabilities). • Have a high availability during the clarification phase. 	<ul style="list-style-type: none"> • Mobilization period • Products clarification phase • Clarification phase process • Elaboration of value added plan • Lead • Clarification phase roles • Expertise and information asymmetry • Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> • The selection phase (including the interviews as part of the tender) can be a reason for distrust (A). • Selected members should enable Best Value; no management, direct, and control (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> • Selected project teams (client and experts vendor) should be able to cope with Best Value (responsibility, autonomy, focus on shared culture and norms, and have a focus on the long term) (S). <p>Application:</p> <ul style="list-style-type: none"> • Reputation and rewarding through nonpecuniary mechanisms plays a role; involved persons should be able to value this (e.g. expertise is valued and appreciated or valued to develop themselves) (S). 		

It is concluded that various interviewees notice that the roles and corresponding attitude and behavior are important aspects for a successful role in the IPM team for a Best Value project. Important aspects of the role of the vendor that are mentioned indicate that they should actively take the lead and the involved persons in the IPM team should have supporting capacities. The client's role is more seen as a critical role, to ask questions concerning the proposal (identifying the blind spots); the capabilities should underpin these roles (see also the section 'Clarification phase roles'). Availability of the client's IPM team is considered to be very important. The availability determines for an important part the planning, in practice the clarification phase is so intensive that fulltime availability is seen as a prerequisite. One of the vendor's note that only a limited number of their staff is suitable for the expert role in the IPM team of a Best Value project (indication of 10%). According to this interviewee do these roles demand capacities like be able to think SMART (dominant) and be able to make structured decisions in a brief period of time. This is a notable observation and could be linked to the underlying theories of Best Value that there are only a limited number of type A persons.

Clarification phase roles

Table 5.10: Clarification phase roles

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>73% of the interviewees indicate that the roles of the clarification phase are not clear. It is indicated that part of the lead role (vendor) is to be pro-active.</p> <ul style="list-style-type: none"> It is observed that there is a tendency to revert to manage, direct, and control. It is indicated that the vendor should have a Best Value advisor that has the right capabilities. The lack of insight in the roles that the client and vendor have to fulfill results conflicts and lacking fulfilling of expectations. It is indicated that the role of the vendor also includes unburdening of the client. It is indicated that the role of the client is also concerned with facilitating the vendor (success of the vendor is the success of the client). It is indicated that a logical start of the clarification phase would be to start with a meeting about expectations and to develop a common vision on the phase and the corresponding process and products. It is indicated that retaining of the roles is or should be part of the expert role of the vendor. The role of the client is also seen as retaining a critical attitude besides the basic aspects that concern (listening, observe, ask questions, deliver information, and point out the blanks). The role of the client is seen as facilitating in terms of being open and transparent (i.e. concerning information). It is indicated that the 'management style' of the client could be labeled management by exception. Transparency and openness of the client concerning available information should be included in their role. It is indicated that the clarification phase is the last phase with possibilities to intervene. It is noticed that when the client observes that their interests are possibly harmed they have to intervene. It is observed that the client sometimes directed the vendor in a direction through comments. Comments are often indiscriminately processed by the vendor (interviewee of vendor indicates that additional attention was given to the comments). 	<p>Client:</p> <ul style="list-style-type: none"> The role of the client includes being critical, facilitating, and basic aspects are concerned with listening, observe, ask questions, deliver information, and point out the blanks. The client should strive for openness and transparency (e.g. complete risk lists and prepared to deliver all information necessary). Manage by exception; mainly when the vendor does not meet the agreement concerning the roles or when the client's interests are possibly harmed. Have a clear vision on about what is necessary to award the project. Do not direct the vendor (i.e. through otherwise labeled comments). <p>Vendor:</p> <ul style="list-style-type: none"> The role of the vendor includes being in the lead, pro-active, unburden the client, indicate when the client reverts to manage, direct, and control. When it is unclear what the roles are, hire a (certified) Best Value advisor. Vendor should indicate what their perception is about the scope and level of detail that is necessary to award the project. Do not process feedback of the client indiscriminately. <p>Client/vendor:</p> <ul style="list-style-type: none"> Align the expectations of the roles at the start of the clarification phase and demand commitment to these interpretations (one of the first meetings). Do not accept reversion to the classical manage, direct, and control from either party. Roles should be retained during the clarification phase (rolvastheid). 	<ul style="list-style-type: none"> Experience with Best Value Planning deviations Mobilization period Composition project team Goal of the clarification phase Products clarification phase Clarification phase process Clarification phase training Lead Expertise and information asymmetry Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> It is indicated that the roles should be attained more to a stewardship promoted management style (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> In practice the roles tend to have a monitor and control mechanism in them (partly) during the clarification phase (A). Roles are concerned with responsibilities and autonomy of the vendor and create these aspects for the vendor (S). Roles focus on a long term relationship (S). <p>Application:</p> <ul style="list-style-type: none"> Client sometimes fills in their role from a perspective to eliminate opportunistic behavior (A). Roles focus on reduction of opportunistic behavior (S). 		

Based on a significant amount of the interviews can it be concluded that the roles that the client and the vendor should position during the clarification phase is unclear. Furthermore can it be concluded that during the process of the clarification phase the client and/or vendor relapse into a more manage, direct, and control relationship. Because the Best Value approach is new to almost all interviewees it is logical that interviewees state that it is a search for a right fulfillment of the roles.

Interviewees indicate that the vendor is not the expert entirely during this phase and that cooperation of the client and vendor should be more central to align the client and vendor. Where the role of the vendor is seen as to be in the lead (initiate, coordinate, and analyses on behalf of the client), the role of the client is seen as a more facilitating one instead of taking the lead and control. This tends to happen regularly in the clarification phases of the cases.

An interviewee indicated that the client is besides facilitating more in a role whereby a sort of 'management by exception' should be central (retaining sufficient distance). The client therefore needs to take a role that besides facilitating the vendor also takes a position as observer, active listener, ask questions to identify blanks, and delivers dominant information.

Lead

Table 5.11: Lead

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>50% of the interviewees indicate that the vendor had taken or was in the lead during the clarification phase.</p> <ul style="list-style-type: none"> Some client interviewees indicate that they had to position the vendor actively in the lead. Vendor interviewees indicate that they should more actively fill in the lead position. Some interviewees indicate that the vendor had difficulties to retain the lead (even the observation that the project management seemed to be allocated at the client). The vendor indicates that the client has difficulty to let the vendor be in the lead (not limited to their role) Elements on which the client has control tend to be exerted beyond the point that is expected from their Best Value role. When the client indicates what they demand for awarding the products the lead position is compromised according to the vendor interviewees. 	<p>Client:</p> <ul style="list-style-type: none"> Enable the vendor to retain the lead. Do not exert control through i.e. products to direct the vendor. Let de vendor indicate what they produce to award and align from there. <p>Vendor:</p> <ul style="list-style-type: none"> Ensure that the role of being in the lead is fully understood (hire expertise when necessary). Take the lead in an active manner. Indicate what is going to be produced and why during the clarification phase (basis for awarding). <p>Client/vendor:</p> <ul style="list-style-type: none"> Ensure that the role of being in the lead is based on a shared vision (alignment of expectations). 	<ul style="list-style-type: none"> Trust Preparing of planning Mobilization period Composition project team Goal of the clarification phase Products clarification phase Clarification phase process Clarification phase training Clarification phase roles Expertise and information asymmetry Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> Indicated that the lead is based on a more involvement-oriented management style rather than the control-oriented management style (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Tendency of client to control vendor compromises the lead role of the vendor (A). The lead role is based or should be based on responsibility and autonomy (S). <p>Application:</p> <ul style="list-style-type: none"> The lead contributes to rewards in more nonpecuniary mechanisms because it enables the vendors to develop and display their expertise (S). 		

Regarding the lead position can it be concluded that it is difficult for the vendor to take the lead and that this role if often not filled in correctly or not filled in correctly throughout the entire process. This also relates to the role the client takes; it is often indicated that the client takes back control through specific mechanisms such as feedback mechanisms and the directive nature of comments which are sometimes packaged under a different name. The often traditional background of project teams and the lack of experience with Best Value results in a tendency for a more manage, direct, and control relationship between client and vendor which sometimes is actively managed to get back into the envisioned relationship. When active management of the roles occurs then this is often realized by the client because they observe that the roles are not filled in correctly or the vendor demands aspects from the client that are not envisioned by the client (e.g. one interviewee indicated that it seemed that the vendor expected that the client managed the project). There is also a relation with the lack of clarity concerning the level of detail of the products. A vendor concludes that when the client tells the vendor which level of detail is necessary to award the project the lead of the vendor is compromised and the client is steering the vendor (a conclusions in this is also that the vendor allow this situation to occur).

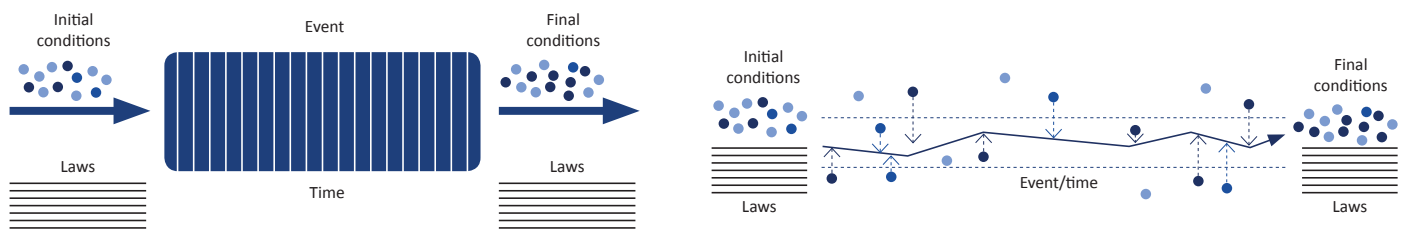
Expert role and information asymmetry

Table 5.12: Expert role and information asymmetry

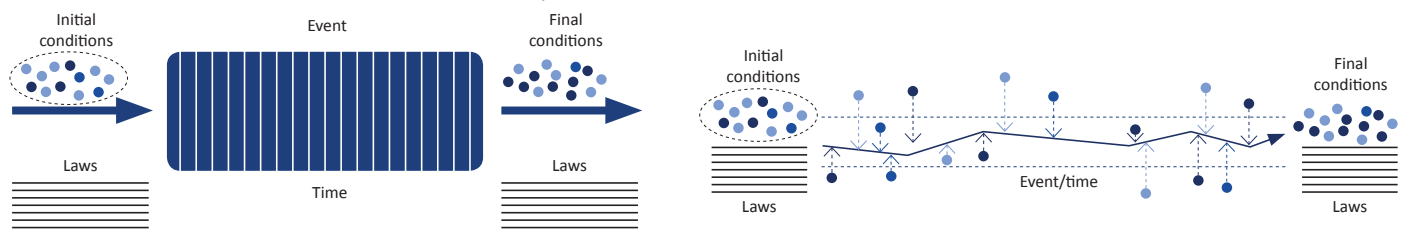
CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the interviewees indicate that there is a (two-way) information asymmetry (both parties have knowledge that the other party does not have).</p> <ul style="list-style-type: none"> It is observed that the client has a lot of project specific knowledge (e.g. project location, produced the entire tender) and the vendor is the Best Value expert that has less project specific knowledge but a lot of necessary expertise. Therefore is it concluded that there is an information asymmetry. Client should be prepared to transfer as much information as possible (e.g. with the use of memo's with an overview and as dominant information). Expectations about information exchange differ; client expects to realize full information transfer while the vendor's indicate to make a selection for the clarification phase and continue to collect information after the clarification phase (vendors collect information necessary for the clarification phase products). It is noticed that nobody can be an expert on all domains. It is indicated that it is important to know in which field the vendor/client is an expert or has specific knowledge and be clear in what aspects not. It is concluded that the client in general has the feeling that the vendor does not use the clarification phase sufficiently to collect available knowledge at the client's side. 	<p>Client:</p> <ul style="list-style-type: none"> Has project specific knowledge. Facilitate information exchange in a dominant manner (i.e. use memos as overviews). <p>Vendor:</p> <ul style="list-style-type: none"> Is the prioritized Best Value expert; has some project specific knowledge and mainly necessary expertise. Manage the expectations of the client. Indicate what is necessary and when. <p>Client/vendor:</p> <ul style="list-style-type: none"> Accept the information asymmetry. Align the expectations about information exchange during this phase. The information exchange continues after the clarification phase. 	<ul style="list-style-type: none"> Composition project team Goal of the clarification phase Products clarification phase Clarification phase process Elaboration of value added plan Lead Clarification phase roles Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> Vendors need to manage the information exchange and the client should facilitate this process (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Information asymmetry exists between client and vendor. Sometimes client does not share everything or facilitate exchange (A). Personal power is developed based on expertise (S). <p>Application:</p> <ul style="list-style-type: none"> Information is not always shared sufficiently (A). Responsibility and autonomy for information exchange should be allocated at the vendor (S). 		

It is concluded that the client has a lot of project specific knowledge too. The vendor is the Best Value expert and has less project specific knowledge but has in general more specific expertise. It is concluded that the clarification phase is a period in which knowledge transfer should occur, however especially the vendor's indicate that this transfer continues after the clarification phase; during the execution of the project. The client tends to have the expectations towards the vendor that they are going to collect all available data that the client has during this phase. The vendors on the other hand indicate that they want to collect only the necessary data to complete the bid and the pre-planning of the project. This sometimes results in a perceived 'urgency' by the client 'to push' the information towards the vendors while the vendors on the other hand indicate that they want to collect the data when they need it. It is concluded that the client expects the vendors to fully align the elaborated bid with their knowledge and expectations while the vendor elaborate their bid and operationalize their proposal (pre-planning) for the process that will be bought by the client. This misalignment of expectation is also depicted in Figure 5.6. All interviewees conclude that there is an information asymmetry between client and vendor; on the one hand from the perspective of the project and on the other hand from the perspective of expertise of the Best Value expert.

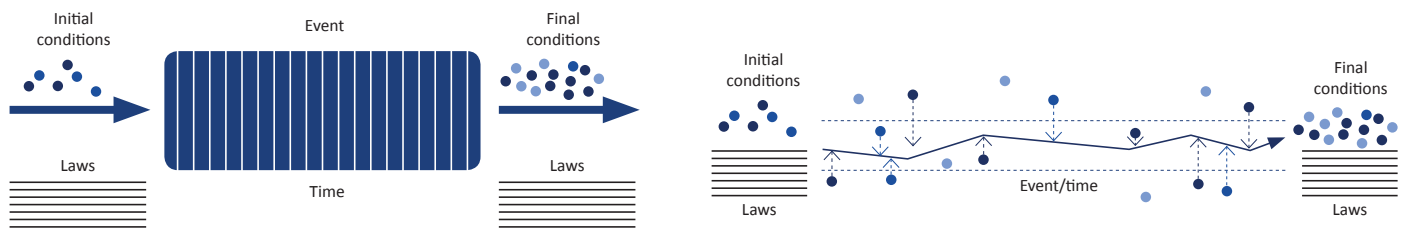
BEST VALUE APPROACH



WHAT THE CLIENT EXPECTS THE VENDOR COLLECTS/NEEDS



WHAT THE VENDOR ACTUALLY COLLECTS/NEEDS



- Conditions Best Value vendor knows for the event/project.
- Conditions Best Value vendor collects/needs to know for the even/project (known by client).
- Conditions Best Value vendor dont collect/need to know for the even/project (known by client or vendor).

- Boundaries of an acceptable plan regarding the project goals of the client.
- Influence of the initial conditions on the event/project; necessary to manage/incorporate in plan (known by vendor).
- Influence of the initial conditions on the event/project; necessary to manage/incorporate in plan (known by client).
- No (direct) influence of the initial conditions on the event/project; not (directly) necessary to manage/incorporate in plan (known by client or vendor).
- The project/event on which the preplanning of the clarification phase is focused.

Figure 5.6: The Best Value event adapted to what the findings of the interviews suggest. The client has the expectations that the vendor will come and collect all available information during the clarification phase and aligns their plan entirely to the client. The vendor interviewees on the other hand indicate that they will only collect the data they need to pre-plan the project (the event is adapted from Kashiwagi, 2013:a).

Products

Products clarification phase

Table 5.13: Products clarification phase

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the interviewees indicate that it is unclear what the content and scope of the various products of the clarification phase is at the start of the phase.</p> <ul style="list-style-type: none"> 100% of the interviewees indicate that the final products are more detailed than any initial expectations. Vendors indicate that they experience that the client can demand any level of detail considering the power to award or not to award. The level of detail in combination with the feedback on products is used to steer and utilize this power. There should be more focus on essential (parts) of products to be detailed further to develop sufficient trust to award the project. Client interviewees indicate in general that the high level of detail is appreciated and gives trust. Vendors indicate that the level of detail is too excessive compared to the demand for products in outlines. It is indicated that there should be more active management of the expectations concerning the various products and especially their content and level of detail. It is indicated that it should be clear what the standards are for awarding the project. Late in the clarification phase the scope and level of detail becomes clear which often results in delays and difficulties in planning this phase. When there is a basis of distrust the client interviewees indicate that there is a direct relation with the level of detail which is demanded (in general high distrust is demanding more details). In some projects the vendor indicate that the specification of the demands is too detailed. Some interviewees indicate that the products do not meet the concept of dominant information. The products are indicated to be durable for the execution (backbone of the process); when the products are not sufficient discussions can occur during the execution. It is indicated that the documents should be comprehensive enough, clear, and explicit. Especially the scope of the project should be determined as exact as possible. Process agreements are used to ensure further elaboration or development of products after the award. It is indicated that the documents should not be viewed as rigid but more as flexible which can be adapted during the execution phase. No actual work should be planned in the clarification phase. It is observed that all efforts made during the clarification phase pay themselves back during the execution of the project. 	<p>Client:</p> <ul style="list-style-type: none"> It should be clear what the scope and the level of detail is of the various products to be able to award the project (at least within the client project team). The client should not implicitly use the uncertainty of the level of detail to demand more details. The client should not steer the vendor in a certain direction but point out the blanks in their proposal. If there is any basis of distrust this should be communicated open and preferably taken away as soon as possible instead of using the products to demand more insight in the vendor. The product specification should not contain high levels of specification while at the same time demand products on outlines. Consider process agreements to award the project but demand certain products to be detailed further or added to the documents when a basis of trust to award the project is developed. <p>Vendor:</p> <ul style="list-style-type: none"> It should be clear what products are going to produced and to which level of detail (this should be aligned with the client expectations). The products should be comprehensive were necessary (e.g. scope), clear (dominant information; SMART), and explicit (singular explanation). <p>Client/vendor:</p> <ul style="list-style-type: none"> Expectations regarding the scope and level of detail of the products should be managed (from the lead perspective of the vendor). Related to this; it should be better aligned what the standards are for awarding the project. No actual work should be demanded during the clarification phase nor should it be carried out. Efforts made during the clarification phase pay themselves back during the execution of the project. 	<ul style="list-style-type: none"> Experience with Best Value Complexity Budgeting of the clarification phase Internalization of the project goals Trust Preparing of planning Iterations Planning deviations Mobilization period Composition project team Goal of the clarification phase Clarification phase process Clarification phase training Elaboration of value added plan Lead Clarification phase roles Expertise and information asymmetry Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> When the initial disposition is to distrust a higher demand for details is often the result (A). Client tends to use power positions to control scope and level of detail of products (A). Products help to align client and vendor in goals and objectives (S). Products help to develop trust (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Products are occasionally used to monitor the vendor (A). Products should clearly be the responsibility of the vendor (S). <p>Application:</p> <ul style="list-style-type: none"> Client tends to reason from a position to eliminate opportunistic behavior (distrust) (A). Goal alignment through the products (S). Products (elaboration bid and preplanning) as reduces the threat of opportunistic behavior and moral hazard (S). Products are envisioned to contribute to reduction on legal contracts to enforce behavior (S). Products are produced with a long term vision; also to get work after the project (S). 		

For the products of the clarification phase can it be concluded that the scope and the level of detail of the clarification phase products is unclear at the start of the phase. Important elements that are observed are that it is structurally unclear what is necessary to award a project, which means that it is unclear for both the client and the vendor which scope and level of detail is expected during the clarification phase and what type of products lead to the award. Both interviewees of client and vendor indicate that efforts should be directed towards essential products to award the project. It is an ongoing discussion what is meant with the meaning of a product in outlines.

It is concluded that the rejection of products during the clarification phase relates to the lacking clarity about the supposed content as well (e.g. project management plan should also describe the client's role and the management of interfaces). It is concluded that management of expectations by the vendor is important and an essential element of the clarification phase to align the expected content and level of detail of the products (already early in the process). Management of the expectations is also something that can contribute to better enable the vendor to plan the clarification phase.

The requested products according to the tender specifications are often clear but it is indicated in some project that the client request very detailed products which do not stroke with the demand for products in outlines (i.e. 18 detailed specifications for the project management plan). The request for highly detailed products does not fit with the basics of the Best Value approach and increases the transaction costs significantly for the selected vendor. What remains difficult and relates to other answers as well is that both client and vendor find it difficult to formulate a level of detail that fits the products in outlines.

It is concluded that in all projects the level of details of the delivered products exceeds any of the initial expectations of both client and vendor interviewees. Especially at the side of the client the high level of detail is appreciated and seen as an important basis for trust that the execution will be successful and lead to the envisioned results. Furthermore, the products are seen as something that contributes to a successful execution and a quick start after the awarding of the project. From an execution perspective some (client) interviewees indicate that a number of products are not as detailed or as good as the client expected them to be (e.g. scope). Vendors indicate that the client can exert

control through the products and tend to (mis-)use it for the purpose of demanding more details than necessary. It is also concluded by various vendors that it is logical to update and change the products of the clarification phase due to progressive insights after the phase has ended.

Elaboration of value added plan

Table 5.14: Elaboration of value added plan

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>The interviewees in general indicate that the entire value added plan is elaborated and a selection is made at the end by the client.</p> <ul style="list-style-type: none"> In one case the elaboration of the value added plan was not included. Vendors indicate that the arguments used could be presented earlier to make a first preliminary selection. Vendors indicate that during discussions with stakeholders the opportunities are already eliminated by themselves. The client indicates that the elaboration of the opportunities is often too limited to take a good decision (i.e. they do not meet the contractual changes procedures of the client). Less than a third of the opportunities is effectuated. 	<p>Client:</p> <ul style="list-style-type: none"> When arguments are available to reject an opportunity do not wait until they are all elaborated. <p>Vendor:</p> <ul style="list-style-type: none"> Elaborate the opportunities according to the tender documents. Plan a moment to make a possible first selection. 	<ul style="list-style-type: none"> Preparing of planning Goal of the clarification phase Products clarification phase Clarification phase process Clarification phase training Expertise and information asymmetry Communication 	<p>Theoretical concepts:</p> <ul style="list-style-type: none"> Value added plans are the responsibility of the vendor (S). They stimulate also more intrinsic reward systems; expertise to add value to the project (S). 		

It is concluded that in three of the four cases the value added plan is elaborated but only a selection is effectuated (0-33%). The vendors indicate that the argumentation used to not effectuate an opportunity could be presented earlier so the opportunity is not elaborated and the time could be used elsewhere in the process. In one of the cases the value added plan was not elaborated at all. As a result of this they were not effectuated either during the clarification phase.

Process

Clarification phase process

Table 5.15: Clarification phase process

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>It is indicated that the process if often run according to the initial planning until either the products get rejected or it becomes clear what is the scope and level of detail demanded by the client.</p> <ul style="list-style-type: none"> Initial number of iterations is often too limited to develop supported products (see also section iterations); it is indicated that the number of iterations is often increased during the clarification phase. The client often has no insight in the products until they are delivered (late in the process). It is indicated that the focus is overall on the production while there is almost no attention for the process (e.g. lacking alignment and no management of expectations). It is also indicated that the client and vendor have the tendency to go into detail in the products the overview is often lost in the process. It is noticed that the client sometimes plans (stakeholder-)meetings for the vendor. Vendor's indicate that this is not beneficial. 	<p>Client:</p> <ul style="list-style-type: none"> Do not plan meetings without a request of the vendor. <p>Vendor:</p> <ul style="list-style-type: none"> Do not exclude the client during the production (e.g. do not deliver the products for the first time as 95% versions in the last week). <p>Client/vendor:</p> <ul style="list-style-type: none"> Do not focus on the production only but also on the process (e.g. alignment, management of expectations, getting to know i.e. the capabilities of the other team and past experiences). Zoom out to oversee the entire process. 	<ul style="list-style-type: none"> Experience with Best Value Complexity Internalization of the project goals Preparing of planning Iterations Response lead time of the client Planning deviations Mobilization period Composition project team Goal of the clarification phase Products clarification phase Clarification phase training Elaboration of value added plan Lead Clarification phase roles Expertise and information asymmetry Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> Initial positions sometimes to distrust in the process (additional iterations are a results) (A). Sometimes lacking involvement-oriented management (A). Process as part of the development of trust (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Process is the responsibility of the vendor (S). Development and insight in personal power is indicated to be central (S). <p>Application:</p> <ul style="list-style-type: none"> Client uses process to eliminate opportunistic behavior (A). Process should focus on autonomy and responsibility of vendor to shape process and eliminate opportunistic behavior (S). Process should contribute to a long term cooperation (S). 		

When evaluating the overall process of production it is concluded that all project (all four when considering the original planning) had more iterations and/or more time than initially planned for the iterations. This relate to a certain extent to the lacking clarity of the level of detail and the scope of the project which often becomes apparent late in the project (after the products are delivered or short before the final awarding of the project). It is notable that during some processes the client plans meetings with for example stakeholder for the vendor without a request; the vendor indicates that these meetings should only be planned be on request and indicate that these meetings can interrupt the process.

Goal of the clarification phase

Table 5.16: Goal of the clarification phase

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>The general goal of the clarification phase is understood by all the interviewees. Notable is the observation by various interviewees that the actual demands in terms of products are not clear.</p> <ul style="list-style-type: none"> It is unclear how to fulfill this goal. It is observed that de products of this phase are in general detailed further as envisioned by the goal. In general it is clear what products are demanded in the outlines. It is also indicated that the process of the clarification phase is not always clear with regard to the goal. 	<p>Client/vendor:</p> <ul style="list-style-type: none"> Ensure that all expectations concerning the goal of the clarification phase are aligned. Ensure that it is aligned how the goal of the clarification phase will be realized. 	<ul style="list-style-type: none"> Experience with Best Value Products clarification phase Clarification phase process Clarification phase training Elaboration of value added plan Lead Clarification phase roles Expertise and information asymmetry Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> The goal of the phase is clear which means that client and vendor are aligned on this level (S). How to fulfill these goals seems to be structurally unclear which leads to problems with the products and the process (A). 		

It is concluded that the goal of the clarification phase is in general clear. It is concluded that it is unclear what exactly the products are to realize these goals; especially the content of certain products becomes often clear very late in the clarification phase process. Concerning the process of the clarification phase; various interviewees also indicate that it is not clear what the Best Value roles exactly mean and how to realize the goals with these roles.

Mobilization period

Table 5.17: Mobilization period

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>In three of the four cases the vendor indicate that they had a mobilization period which takes two to four weeks. During this period the team is mobilized within the companies and it is indicated that this period can be chaotic.</p> <ul style="list-style-type: none"> It is indicated that there is no special tender-team and that the first IPM roles are already filled in and mobilized before or during the selection phase. The client does not have a mobilization period during this phase because they have already started with the project far before the clarification phase. Two vendors indicate that they had taken the mobilization period into account in the planning; however one of these vendors also indicated that this period was longer than expected. In general the vendor first composes the IPM team and then selects the persons that are supporting the core team; this support team grows during the clarification phase. When the team grows there is a small mobilization period every time a new employee is involved. One case was delayed due to legal issues, the mobilization period was therefore longer (restarting the project). Starting a clarification phase during a holiday makes it more difficult to make a 'flying' start. When there is an Alcatel period the mobilization period can be started. It is indicated that when the vendor gets selected they should be prepared to make a swift start. 	<p>Client:</p> <ul style="list-style-type: none"> Do not expect the vendor to be able to make a flying start in the clarification phase (mobilization period of several weeks). <p>Vendor:</p> <ul style="list-style-type: none"> No special tender-team, first IPM roles that start the clarification phase. Mobilize the IPM team as a basis, supporting team tends to grow during the clarification phase. Include the mobilization period in the planning (first two weeks). Start mobilizing the team during the Alcatel period. <p>Client/vendor:</p> <ul style="list-style-type: none"> Starting a clarification phase during a holiday adds to the duration of the mobilization period. 	<ul style="list-style-type: none"> Preparing of planning Planning deviations Composition project team Products clarification phase Clarification phase process Lead Clarification phase roles Communication 			

In all cases is the IPM structure used for the central positions at both the client and the vendor. It is concluded that in all projects there are no special tender teams which means that involved persons in the selection phase also start up the clarification phase. Various interviewees of the vendor indicate that it is impossible to run a successful Best Value project with a tender team which is not involved in the rest of the project. During the clarification phase the vendors indicate (three out of four projects) that there is a mobilization phase at the side of the vendor. It is notable that some vendors take this period into account in the planning but that during the phase the duration is often longer than expected. It is concluded that starting the clarification phase during a holiday increases the duration of the mobilization period in a negative manner. It is also concluded that the team of the vendor tends to grow during the clarification phase. One vendor indicates that when this growth occurs the newly involved persons need to be adapted to the project which can be seen as mobilization periods during the clarification phase.

Internalization of project goals

Table 5.18: Internalization of project goals

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the interviewed vendor's indicate that the project goals are internalized during the selection phase.</p> <ul style="list-style-type: none"> It is concluded that it is almost impossible to get selected when the project goals are not incorporated in the bid. It is noted that the project goals remain important during the clarification phase and should remain leading (e.g. in making choices for detailing certain products, i.e. the risk management plan). 	<p>Project goals are already internalized during the selection.</p> <p>Client/vendor:</p> <ul style="list-style-type: none"> The project goals can be part of setting the level of detail for a clarification phase product. 	<ul style="list-style-type: none"> Products clarification phase Clarification phase process 	<p>Central notions:</p> <ul style="list-style-type: none"> Goal alignment; goal alignment start in the selection phase (S). <p>Application:</p> <ul style="list-style-type: none"> Goal alignment based on shared goals; further alignment during clarification phase (S). 		

It is concluded that the project goals are for a large extend internalized during the selection phase. Vendors indicate that it is practically impossible to be the prioritized vendor without internalizing the project goals. The goals are leading in the development of the documents for the selection and are further incorporated in the clarification phase. It is indicated that the project goals also contribute to the level of detail and that they are or that they should be used to set the level of detail for the production of the products during the clarification phase.

Clarification phase training

Table 5.19: Clarification phase training

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>Overall both client and vendor interviewees appreciate the clarification phase training.</p> <ul style="list-style-type: none"> It is indicated that the tender documents are not sufficiently clear about the clarification phase and that the training is therefore extra important. It is indicated that the training should appoint the necessity to align the expectations regarding the products of the clarification phase. Interviewees consider that it is important to have the training as early as possible in the clarification phase. A client interviewee indicates that the training should be much earlier for them (possibly during the elaboration of the tender documents). It is indicated that there could be more attention for the actual process (e.g. roles) and the corresponding products (currently significant attention for the theoretical aspect). Vendor interviewees indicate that it became clear that the training made it clear that the vendor and the project team are not aligned. 	<p>Client:</p> <ul style="list-style-type: none"> Ensure that the project team and the advisory team are aligned. Consider to have the training during the elaboration of the tender documents. Less focus on the theoretical aspects and more attention for the practical side of the clarification phase. Appoint the necessity to align the expectations for the products. <p>Client/vendor:</p> <ul style="list-style-type: none"> The training should be held as soon as possible. 	<ul style="list-style-type: none"> Preparing of planning Goal of the clarification phase Products clarification phase Clarification phase process Lead Clarification phase roles Communication 	<p>Central notions:</p> <ul style="list-style-type: none"> Training is considered useful to align client and vendor (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Training contributes to a shared culture and norms by appointing briefly the expectations concerning the roles (S). 		

It is concluded that the clarification phase training is considered to be a valuable. Various aspects are observed to give the training more value; the training should be held earlier in the process (one interviewee of the client indicated that it could be valuable for the client to have the training even before the formulation of the tender documents), pay attention to the development of trust, the training should be more clarification phase specific and focus on the expectations (level of detail, accountability, roles, task division). It is notable that two interviewees of the vendors indicate that the training made it clear that the client is not aligned internally (project team versus advisory Best Value expert team).

Communication and dominant information

Table 5.20: Communication and dominant information

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the interviewees indicate that (at a certain moment) a planning was available which indicated the meetings. 100% of the client interviewees indicate that it was clear when the vendors expected anything. 100% of the vendors indicate that it was clear when the client was available.</p> <ul style="list-style-type: none"> It is observed that it is important for the client to have a high availability. During the meetings it is indicated that there is a focus to remain on the outlines but it is also observed that there are various meetings with high levels of detailed discussions and that its sometimes necessary. Not all projects succeed in a focus on outlines and dominant information. More detail in the products also lead to higher levels of details in the discussions. It is indicated that a kind of artificial manner of comments is used to let it seem as if it are not comments. In one project the comments were given back in terms of "showstoppers, risks, service" which was perceived as a usefull discrimination. The products contain often large amounts of details and only one vendor indicates that actively the concept of dominant information had been applied on the products. 	<p>Client:</p> <ul style="list-style-type: none"> Have a high availability during the clarification phase. Communicate availability to the vendor. <p>Vendor:</p> <ul style="list-style-type: none"> Communicate what is expected when from the client. Focus on the concept of dominant information in the products. <p>Client/vendor:</p> <ul style="list-style-type: none"> Consider carefully how feedback is given and align this. Consider carefully when to go into details during meetings and when to remain on the outlines. 	<ul style="list-style-type: none"> Preparing of planning Response lead time of the client Mobilization period Composition project team Goal of the clarification phase Products clarification phase Clarification phase process Clarification phase training Elaboration of value added plan Lead Clarification phase roles Communication 	<p>Theoretical concepts:</p> <ul style="list-style-type: none"> Organization of communication is the responsibility of the vendor (S). Client and vendor need shared culture and norms to develop good communication channels and utilize the communication optimally (S). Personal power and trust is developed for a significant part through communication (S). 		

From the four cases three had a structured planning of meetings and moments of which there were certain expectations towards the client, later in the process all projects had a meeting schedule. This type of planning tools made it clear for the client when and what was expected from them. The one project in which this type of planning was not used there was at first hand an 'ad hoc' type of structure of meetings. In this case a planning was introduced later. The vendor's indicate that it is clear for them what the availability was of the client. In projects were the project team is not fully available it is sometimes indicated that a high or even full availability is necessary for a compact and successful clarification phase (some client interviewees also indicate this).

It is concluded that in all cases the tendency existed to go into detail at a certain point or during the entire project. Both in discussions/ meetings, the produced products, and feedback on the products the concept of dominant information was left behind according to various interviewees. It is concluded through the interviews that the tendency to discuss in more detail comes during the project when the products become more concrete and detailed themselves.

Overall the products are considered to be very detailed on many aspects and exceed the initial expectations for the request of the products on outlines (and detailed on main aspects). The concept of dominant information is hard to retain but at least one vendor considers their products to meet the standards of dominant information.

Trust

Table 5.21: Trust

CONCLUSIONS CROSS-CASE ANALYSIS	RECOMMENDATIONS	RELATION OTHER TOPICS	RELATION THEORETICAL FRAMEWORK (A = Agency theory S= Stewardship theory)	CLIENT	VENDOR
<p>100% of the interviewees see a role for the development of trust during the clarification phase. Some interviewees indicate that trust is not always developed as it should be (distrust between client and vendor).</p> <ul style="list-style-type: none"> Past experience of involved persons or companies plays a role in the expectations (and can hamper the development of trust). The initial conditions for trust can originate from the selection phase (past performance information and interviews) but a real basis for trust is developed during the clarification phase (based on both personal experience and the quality of the products). It is noted that there is often too much focus on production and that there should be more attention for the process and the development of personal relations. Openness and transparency between client and vendor contribute to the development of personal power and trust. Trust is developed further after the clarification phase. 	<p>Client:</p> <ul style="list-style-type: none"> If you have to discuss with the vendor about a bid that is too low you do not have the right vendor (basis for distrust). <p>Vendor:</p> <ul style="list-style-type: none"> Enable a moment (at the beginning of the phase) to focus on the development of trust between the client and vendor team. <p>Client/Vendor:</p> <ul style="list-style-type: none"> The clarification phase is an important moment in which the project teams should develop the basis for trust and cooperation. Openness and transparency play an important role in the development of trust (and personal power). Pre-planning and elaborating the bid are based on verified documents (selection) and contribute to verified trust. Trust is often also seen as the basis for a good cooperation or the result of a good cooperation. 	<ul style="list-style-type: none"> Planning deviations Products clarification phase Lead 	<p>Central notions:</p> <ul style="list-style-type: none"> Initial position is sometimes to distrust (A). Trust develops during clarification phase (S). Trust develops over time (only partly based on performance information) (S). <p>Theoretical concepts:</p> <ul style="list-style-type: none"> Client uses control mechanisms to a certain extend (through product control) (A). Not awarding the project used/perceived as incentive/treat (A). Assignment of risk of not awarding as measure to ensure goal compliance (A). Responsibility and autonomy vendor (S). Shared culture and norms necessary to successfully complete clarification phase (S). Development of personal power and trust (S). Focus on long term (S). <p>Application:</p> <ul style="list-style-type: none"> Client tends to focus on eliminating opportunistic behavior (A). High demand for detail by client focuses on minimizing the information asymmetry (A). Rewarding of Best Value is perceived as such by the experts (S). 		

During the selection phase it is possible to develop an initial basis for (verified) trust (or distrust) due to the possible quality and past performance information included in the tender (calculus-based trust; see also the Intermezzo concerning trust in Chapter 4). It is concluded that (based on all interviewees) trust is developed during the clarification phase or at least should be developed for an important part during this phase. Notable is that this trust is not the verified trust the Best Value approach tries to realize through past performance information

but more a type of personal power or what has been labeled relational trust in earlier in this report. The fact that during the clarification phase verified trust is not further developed could relate to the contemporary situation of the construction industry in which performance information is not collected and available sufficiently to be processed easily in the clarification phase products or used to support the developed plan.

Another aspect that contributes to the fact that trust or the basis for (verified) trust is not developed sufficiently during the clarification phase relates to an initial distrust which can for example be the result of a low bid and/or low offered performance while the client expects a Best Value vendor who offers a high value. In the case of the 'Project 3' this resulted in a strong distrust from the client towards the vendor who had a relative low bid which resulted in a relapse in a more traditional setting that could be characterized from the perspective of the agency theory. Distrust is hard to turn around in a basis of trust or a trustful relationship; or as the Best Value approach envisions a more professional relation in which past performance information is dominant and establishes a verified trust.

An aspect that concerns the development of trust between client and vendor is that during the clarification phase interviewees indicate that there should be dedicated time to develop the trust between vendor and client. From the perspective of Best Value this is strange since there is only space for verified trust or to a limited extent personal power. It could relate to the lacking availability of performance information to underpin the proposed process (the bid) which result in the relapse in a more traditional standard of trust (for the differences in trust see also the theoretical framework in Chapter 4). Other aspects that tend to contribute to difficulties in the development of a basis of trust are the requested level of detail by the client (high level of detail) and intensive reviewing of the products, expectations that differ and are not aligned concerning the products (e.g. content and level of detail), planning in the holidays which made meetings difficult (products are sometimes delivered late in the clarification phase for the first review). It is notable that the initial position tends to be to distrust, often based on the past experience in projects (i.e. Project 1 in which institutional distrust occurred against the vendor) or based on the selected proposal (i.e. Project 3). Aspects that influence the development of trust and which are often mentioned are transparency and openness between client and vendor teams. Openness and transparency are elements that are by both client and vendor interviewees seen as basics that contribute to the development of trust. Striking is that it is noted that trust is seen as very important but even the circumstances for that type of trust are not created so that trust is developed on a relational level; during some projects there is almost no interaction between the client and the vendor before delivering the clarification phase products which also means that (goal) alignment is very difficult. Lacking availability and use of performance information makes the establishment of verified trust additionally difficult.

Overview: main problems clarification phase

The conclusions drawn on the basis of within-case analysis and the cross-case analysis make it possible to indicate where the main problems are allocated for the clarification phase. These main problems are presented below as an overview of the conclusions and the findings of the clarification phase.



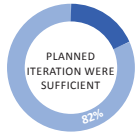
Experience with Best Value

- There is almost no experience with the Best Value approach or clarification phase.

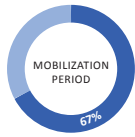


Planning

- Complexity and size of the project are not taken into account for neither the advice for the planning (client) of the clarification phase nor the actual planning (indication is often taken over by the vendor). The indication of the client is often seen as an important guide or even taken over so complexity and size are not included in the duration of the clarification phase.



- The planning does not contain sufficient iterations to develop the envisioned products.



- Underestimation of the duration of the mobilization period.



- Budgets made by the vendor for the clarification phase are not sufficient (relates to the scope and level of detail of the clarification phase products that are not clear). Some vendor interviewees indicate that they are (willing to) paying learning fees to learn to work with Best Value but budget structural budget overruns are not a durable way of working.



Project teams and roles

- Clarification phase roles that the teams of the client and the vendor team have to fulfill are not clear.
- Tendency to revert to manage, direct, and control attitudes.



- The vendor is often not in the lead during the entire duration of the clarification phase.



Products

- The scope and the level of detail of the products of the clarification phase are not clear.



Process

- A basis of trust is lacking or there is even a basis for distrust which i.e. results in demanding more details.

LEGEND



5.8 ANALYSIS FROM THE THEORETICAL FRAMEWORK PERSPECTIVES (AGENCY VS STEWARDSHIP)

In the Tables the results of the cross-case analysis are already briefly aligned with the theoretical framework consisting of the agency and the stewardship theory. In Figure 5.7 the overview of the results regarding the application of the clarification phase are presented. In this Figure the earlier scheme which was based on the evaluations of various projects is updated with the additional input of this study.

CONCLUSION

Central in the selection of the theories for the theoretical framework was the initial understanding of the clarification phase through the analysis of available project evaluations. Based on those insights the theoretical framework presented the agency theory and the stewardship theory as two opposite but also complementary theories which were evaluated as relevant for the analysis of the clarification phase in practice from a theoretical perspective.

It was concluded that while the stewardship theory shares many commonalities with the Best Value approach from a theoretical perspective it is also the agency theory that fits with numerous elements in practice (Chapter 4). The initial insights were based on the analysis of the evaluations and can in general be concluded to be confirmed by the case studies. Various aspects from practice tend to fit more with the agency theory as the Best Value approach envisions.

Examples from the cases indicate that when the focus tends to be more on the agency side there is a natural tendency to relapse into more control-oriented management styles from both client and vendor which match with the control, direct, and manage notion that Best Value tries to exclude from the process. For the case 'Project 3' can it even be concluded that the basis of distrust due to a low price bid overshadowed the entire clarification phase and forced the process back into a more traditional setting in which the agency theory dominates. It is notable that distrust is mentioned as a main reason for the problems in that clarification phase of this project since relational trust or institution-based trust is not part of the Best Value approach. The observation for this case that the roles were not sufficiently understood aggravated the control-oriented management style of the client even further. Therefore it is concluded that agency characteristics are observed during the implementation of the clarification phase, for some cases more than in others.

The observation that the agency theory can be recognized in certain moments or during the entire clarification phase means that the clarification phase process does not align with envisioned 'rules of engagement' and to the envisioned products by the project teams. An example is that according to the Best Value approach the vendor is not at risk during the clarification phase. The vendor however perceives to be at risk because the project is not awarded yet and the principal (client) can exploit this position by demanding more details than envisioned on subjects where it is not necessary. This observation is notable since vendors should withhold the client from exploiting the uncertainty since the clarification phase is in place to protect the vendor. It is part of the role of the vendor to preserve their lead position and retain the focus of production instead of delivering everything the client demands because the project has not been awarded yet.

This sometimes control oriented management style does not align with a facilitated orientated role of the client and the lead role of the vendor promoted by the Best Value approach. On the other hand it is indicated that the vendor does not position the role the Best Value approach envisioned but can be described in more traditional terms in which they await the client to tell what to do or just do what is demanded in the legal documents (e.g. 'Project 2'). It could be concluded that the client sometimes tends to focus on eliminating opportunistic behavior (which is expected, based on past experiences and/or on the bid; e.g. low price bid in 'Project 3') through the demand of exorbitant extensive products instead of giving responsibility and autonomy to the vendor to pre-plan the project and elaborate the bid in outlines to get the project awarded. Additionally to this conclusion is that the vendor tend to fill in their role from the manage, direct, and control perspective to wait for the client and not take the Best Value lead. In some projects the lack of transparency (both vendor and client) and not sharing complete information with the vendor results in retaining an information asymmetry which does not benefits the Best Value process; and at the end the entire project. The agency focus during the clarification phase can also result in more focus on the legal contracts instead of reducing the importance of legal products. This observation does also not align with the Best Value philosophy but aligns with the agency theory in which legal documents are important to manage the principal-agent relationship (i.e. 'Project 3').

An important conclusion that can be drawn on the basis of the input for the model and thus the results of the interviews is that the envisioned process of the clarification phase should align better with the stewardship theory instead of the agency theory. Notions of interviewees that the client should be in a more facilitating management position and that the vendor should be more autonomous and responsible for a good process (lead) are examples that the stewardship theory align or could lead to a more Best Value envisioned clarification phase. A notable result of an interview for this is that one of the vendor interviewees indicated that "their goals (client) are our goals"; which is a central notion in both the stewardship theory and the Best Value approach that the goals are not enforced but incorporated in the process through scope formulation (interview 7). Besides the conclusion towards the role of the client can be concluded that the vendor should be more active in taking their expert and lead role and focus on retaining this position throughout the entire phase.

Understanding the importance to retain a stewardship focus during the clarification phase can also be an aspect which needs to be developed and become more natural when the involved persons are more experienced with Best Value. This relates to the business as usual approach which tends to be the natural approach of many involved persons and tends to be focused on the agency theory. This would also explain why involved person are able to reflect on the clarification phase in such a manner that especially stewardship and Best Value notions are mentioned as important possibilities to improve for a future clarification phase because they contrast with what has been realized.

In sum it is concluded that an important mechanism that leads to planning overruns is that the envisioned roles of both the client and vendor team are not sufficiently clear during the clarification phase. This combined with a tendency to distrust (business as usual expectations) and the lacking alignment of the envisioned products in scope and level of detail lead to the demand of the client for more details. In general tends the vendor to deliver the demanded details requested by the client and process feedback indiscriminately because the contract has not been awarded yet, while they should retain their lead and position the client in their role. As a result the products tend to be excessive and too detailed compared to any initial expectations and the request for products on outlines.

Another result is that the vendor loses the lead (if they had taken it) is that they are not pro-active in defending their own role and the client

utilizes control mechanisms (through the products) instead of enabling the vendor retain the lead. When the client tries to compromise (unintentionally) the lead of the vendor the vendor's should be more pro-active to prevent this from happening and position the client back in their role. This is of course difficult because of the pre-contractual relationship. It is concluded that the trust the client seeks is based on classical assumptions related to the agency theory which focus on mechanisms to eliminate opportunistic behavior and that the vendor is not championing their 'new role'. While stewardship theory and the Best Value approach discard these mechanisms. The Best Value approach introduces the concept of past performance information to establish verified trust. This mechanisms of developing trust seems to be absent after the selection phase and not used to develop trust during the clarification phase. A notable observation in this respect is that the Best Value approach emphasizes the importance of past performance and not acknowledges the development of trust on a more relational level. It is the observation by the interviewees that the development of trust on a more relational level occurs during the clarification phase as well. This type of trust is envisioned by the stewardship theory but is in general not acknowledged to be important from a pure Best Value point of view due to the use of past performance information to verify that the process that is bought can be expected to be successful.

5.9 VALIDITY AND RELIABILITY

In this section the validity and reliability of the study is considered since the most important part of the method is applied in this chapter to collect information and couple these to recommendations. First validity is introduced and coupled to this study followed by the reliability. Besides the validity and reliability is also triangulation introduced as support for validity and enhancement of valuable findings.

VALIDITY

Validity refers to the notion if it is possible to draw meaningful and useful conclusions from the results of a certain instrument (Creswell, 2009). Three types of validity are important to consider regarding the use of the proposed methods to research upon the clarification phase. These types will be explored in the following section to demonstrate the value of the conclusions of this study.

Construct validity is concerned with the question if the correct operational measures are used for the concepts that are being studied. It is thus concerned with the link between the research question, the collection of the necessary information, and the methods used and their design (Creswell, 2009, Runeson & Höst, 2009, Yin, 2013). Construct validity is realized in this study through the use of multiple sources of evidence such as the project documentation and the use of interviews to collect data and develop insights. The use of multiple cases also contributes. Throughout the entire study a chain of evidence is present which links sources of data to each other. This chain of evidence is maintained according to the structure of the research as presented in Chapter 1. Experts are also involved in checking the results of the study which contributes the construct validity. In Chapter 7 the verification of the results is introduced as additional check on the results (Yin, 2013).

Internal validity relates to the causal relations in a study and applies mainly in explanatory studies (Creswell, 2009, Runeson & Höst, 2009, Yin, 2013). Internal validity applies only to a limited extend to this study since part of this research is to find any reasons behind the planning overruns. To enhance the internal validity a case study tactic like explanation building is used as suggested by Yin (Yin, 2013). Inference which can occur as a result of an earlier event that cannot be observed directly is analyzed through the cases study analysis. Multiple cases, multiple sources of information and carefully constructed interviews contribute to establish internal validity and eliminate causalities (Yin, 2013).

External validity is concerned with if the findings of the case study can be generalized beyond the study itself. As a limitation of this study was already indicated that the findings of the study will be limited to Rijkswaterstaat since they implements Best Value as a frontrunner and the implementation is embedded in the context of this organization. It is therefore important to establish external validity of the findings beyond the four case studies. Replication logic in selecting the cases is used to enhance the external validity and use a representative selection of cases. In Chapter 7 verification with members of other Best Value projects at Rijkswaterstaat are consulted as well regarding the results of the study to check and enhance the external validity (Yin, 2013).

RELIABILITY

Reliability is concerned with to what extend the data and the corresponding analysis can be replicated by others in order to arrive at corresponding results (Creswell, 2009, Runeson & Höst, 2009, Yin, 2013). The main tactic to enhance the reliability of this study is the use of case study protocols to ensure information is processed and collected in a systematic manner (Yin, 2013); this is further enhanced through the use of a clear research structure and that it is appointed which input is used during the various parts.

TRIANGULATION

Triangulation is concerned with the convergence of collected data from different sources to determine if the findings are consistent (Cresswell, 2009, Yin, 2013). Validation methods enhance the validity (Yin, 2013). Three types of triangulation are used to determine if the data collected is consistent:

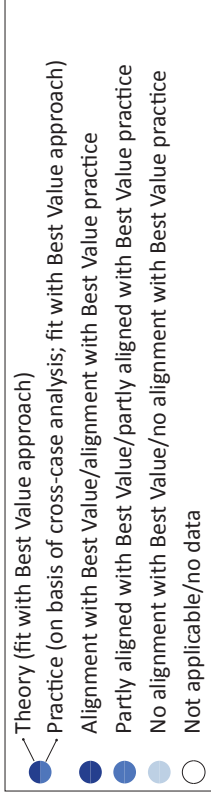
- Various sources of data were be used to draw information from (e.g. project documentation, evaluations, and multiple interviews per case) which contributes to data triangulation (Yin, 2013).
- Besides the theoretical notions of Best Value has a theoretical framework been constructed with two perspectives (agency theory and stewardship theory) which are used as a perspective on the data collected adding up to theory triangulation (Yin, 2013).
- Finally the use of multiple methods to acquire the insights and check them results in methodological triangulation (documentation analysis, interviews, and surveys) (Yin, 2013).

AGENCY THEORY

Model of man: Emphasizes a self-interested actor which searches in a rational manner for maximization of their own personal (economic) gain.

- Central notions
 - Goal incongruence: assumes goal divergence based on self-interested rational actors.
 - Initial position is to distrust.
 - Control-oriented management philosophy.
 - Theoretical assumptions are from economics.
- Theoretical concepts
 - Use of incentives and sanctions to foster goal alignment.
 - Assign risk to the agent to ensure goal compliance.
 - Monitoring and control mechanisms.
 - Reward systems.
 - Use of bonding threat to reputation.
 - Short term.

- Applications
 - Eliminate opportunistic behavior.
 - Provide the level of incentives and sanctions which reduce the threat of information asymmetry.
 - Correct, through specific contract requirements, for asset specificity and moral hazard.
 - Uses reputation as an incentive and sanction.
 - Ensure goal alignment.



STEWARDSHIP THEORY

Emphasizes an actor as a steward whose behaviour is ordered in such a manner that pro-organizational, collective behaviour with higher utility than individualistic, and self-serving behaviour is created and sustained.

- Goal alignment: mutual goals and objectives. Trust develops over time, initial trust position can be absent.
- Involvement-oriented management philosophy. Theoretical assumptions derived from organizational behavior, psychology, and sociology.
- Responsibility.
- Autonomy.
- Shared culture and norms.
- Personal power and trust.
- Other governance mechanisms.
- Long term.

- Goal alignment based on shared goals and trust.
- Reward workers through nonpecuniary mechanisms.
- Reduces the threat of opportunistic behavior through responsibility and autonomy.
- Reduces the threat to the organization of information asymmetries, moral hazard, and asset specificity.
- Reduces dependence on legal contracts to enforce behavior.
- Uses reputation as an incentive and sanction.

BEST VALUE APPROACH

Emphasizes an expert actor whose behaviour is ordered in such a manner that pro-organizational/pro-project, collective behaviour is realized with a focus on creating a win-win situation in which validated trust through past performance information is created with a focus on high performance and creating value.

- Goal alignment: project goals and objectives are set by the client and developed into a scope by the vendor.
- Trust is established through performance information.
- Vendor is in the lead and involves the client when necessary.
- Management model is based on listening, observe and streamlining of the process.
- Theoretical assumptions from information measurement theory and Kashiwagi solution model.
- Verified trust (verified performance) and to a limited extend personal power.
- No decision making.
- Expertise and professionalism.
- Minimization of communication.
- Dominant information.
- Transparency.
- Risk management (risk mitigation).
- Long term (past performance and focus on win-win).
- Goals are aligned according to the project goals and objectives which are formulated by the client and filled in by the vendor.
- Trust is developed through the use of past performance information.
- Expert is in the lead and has the control.
- Opportunistic behaviour, information asymmetry, moral hazard and asset specificity is reduced through the use of dominant information (transparency), leading role of the expert (vendor), and the focus on a win-win situation.
- Incentive system based on expertise enhancement and creating high rated past performance information (reputation as an incentive and sanction).
- Reduced dependency on the legal contract.

Figure 5.7: update of the summary scheme of the theoretical framework for the clarification phase (after: Davis, Schoorman & Donaldson 1997:a, Donaldson & Davis, 1991, Kashiwagi, 2013:a, Kashiwagi, 2013:b, Slyke, 2006).

5.10 CONCLUSION

The case studies in this study are essential to the development of an intrinsic understanding of the implementation of the clarification phase of Best Value at Rijkswaterstaat. The following research question has been used as a main guide to develop the envisioned insight in the processes.

3. How did Rijkswaterstaat and their vendors implement the clarification phase of the Best Value approach and what were the results?

To answer this research question a case study was designed to develop the necessary insights. Based on five criteria, four cases were selected for a multiple case study. Central in the multiple case study approach carried out during this study are the analysis of project documentation and interviews with key persons involved in the central teams of both the client and the vendor.

Results of the case studies were analyzed both within-case and cross-case to draw conclusions. These analysis methods also facilitated a further understanding and insight in the main problems of the clarification phase and the reasons behind the planning overruns observed earlier in this study. The within case-analysis proved to be an important input for the cross-case analysis for developing an overview of the main problems detected during the case study. These main problems can be summed up under the following categories:

Experience with Best Value

- Involved persons have almost no experience with the Best Value approach and/or clarification phase.

Planning

- The complexity and size of the project are not taken into account in both the advice for the planning of the clarification phase (client) and the actual planning (indication is often taken over by the vendor).
- The planning does not contain sufficient iterations to develop the envisioned products.
- Underestimation of the duration of the mobilization period.
- Budgets set by the vendor for the clarification phase are not sufficient (relates to the scope and level of detail of the clarification phase products that are not clear).

Project teams and roles

- Clarification phase roles that the teams of the client and the vendor team have to fulfill are not clear.
- Tendency to revert to manage, direct, and control attitudes.
- The vendor is often not in the lead during the entire length of the clarification phase.

Products

- The scope and level of detail of the products of the clarification phase are not clear.

Process

- A basis of trust is lacking or there is even a basis for distrust which results in demanding more details.

For an entire overview of the problems the various tables in this chapter can be consulted. In this chapter the results of the case studies are coupled with the conclusions and the recommendations. The recommendations will be the basis for the development of a model which presents the recommendations in a structured manner.

An explanation that can be filtered from the responses of interviews regarding the observed differences in planning overrun between Design & Construct and Engineering Services projects is the difference in nature between these types of projects. Design & Construct projects are perceived to be more specific in terms of client demands whereas the Engineering Services are in a stadium in which more (design) choices need to be made regarding for example the design. The scope in Engineering Services is as a result not as clear as it often is in Design & Construct.

The results of the case studies have also been explained from the perspective of the theoretical framework which comprises the agency theory and the stewardship theory. It is concluded that the initial conclusions based on the analysis of project evaluations is confirmed by the case studies, which means that while the theoretical tenets of the stewardship theory fit with the Best Value approach in practice, there are significant elements of the agency theory present which hamper the clarification phase from a Best Value perspective. An important mechanism which underpins this and leads to planning overruns is that the envisioned roles of both the team of the client and vendor are not sufficiently clear during the clarification phase. It also occurs that there is a lack in alignment between client and vendor and an absence of experience how these roles should be filled in. This combined with a tendency to distrust (business as usual expectations; agency theory orientation) and the lacking alignment in expectations regarding the envisioned products in scope and level of detail results in the demand by the client for more details. The vendor, in general, does not protect its lead and does not position the client in their role and delivers the demanded details requested by the client and processes feedback indiscriminately because the contract has not been awarded yet. As a result the products tend to be excessive and too detailed compared to any initial expectations of the persons involved and the request for products on outlines with some details on essential products such as the quality management system, top risks, and the project planning.

Regarding the central question in this chapter, this study shows that there are various problems which underlie the planning overruns. The planning overruns which are an important reason for this study can be seen as a symptom of various issues that arise during the clarification phase. Through four case studies and the analysis of the results the main issues have been appointed. Recommendations are introduced which align with the observed problems. The formulated recommendations will be central in the next chapter, in which structured improvements will be suggested for the effectiveness and efficiency of the clarification phase.



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CLARIFICATION PHASE MODEL

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6.1 INTRODUCTION

The data collection resulted in valuable insight in the process of the clarification phase and the implementation by Rijkswaterstaat and its vendors. Central in this chapter is the elaboration and especially the structuring of the results and corresponding recommendation in a model for the clarification phase. The model should mainly include the recommendations made on basis of the findings in the case studies. The fourth research question is central in the search for a suitable model which represented the findings of the case study.

4. What model for developing the clarification phase of the Best Value approach can be used?

In this chapter first the recommendations for the clarification phase are appointed (6.2) followed by the structure of the clarification phase model (6.3). After these basics the model itself is presented (6.4) followed by a brief reflection of the expected impacts of the recommendations on the observed main problems (6.5). In section 6.6 the conclusions regarding the fourth research question are presented.

6.2 RECOMMENDATIONS FOR THE CLARIFICATION PHASE MODEL

The recommendations were already introduced on outlines in the previous chapter as complementary to the observed main problems and conclusions. For the development of the model the recommendations are structured according to the main topics presented in the results. The recommendations that are structured in the categories are coupled to specific processes which are located in the clarification phase and/or other parts of the Best Value approach. A differentiation is made between recommendations that apply to multiple aspects of the process and recommendations that are specific for parts of the Best Value or clarification phase process.

6.3 CLARIFICATION PHASE MODEL STRUCTURE

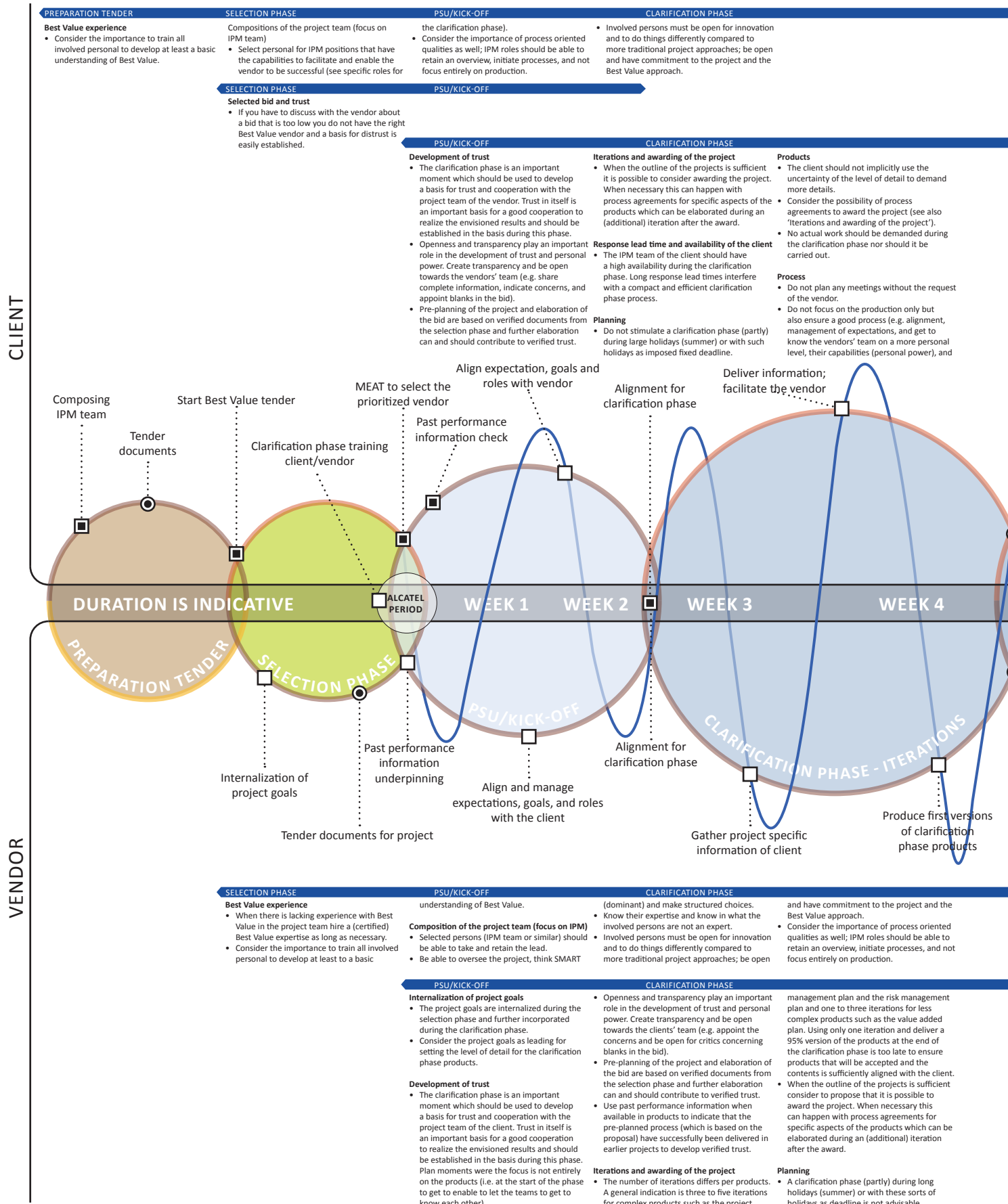
The recommendations are structure around the process of the Best Value approach. This process is based on the theoretical notions presented in Chapter 2. An addition to these theoretical notions introduced there is inclusions of the preparation of the tender by the client in which the project and tender specifications are prepared before the project is put out for tender.

The process here is specified for the application at Rijkswaterstaat (and therefore has an orientation on the Dutch context and the European setting). Aspects that play a role from this perspective on the clarification phase are the Alcatel period (mandatory standstill period of 20 days for all tenders procedures subject to European regulations) and the period in which the bids are valid (in general 90 days; gestanddoeningstermijn) which are taken into account for the recommendations.

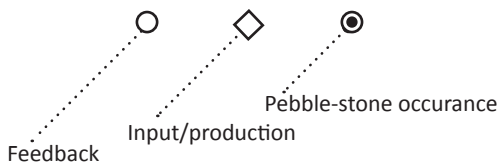
According to the implementation of the Best Value approach at Rijkswaterstaat are the following phases included for the Best Value approach; the selection phase, the clarification phase, and the execution phase. For the clarification phase the process is specified further to enable specific recommendation to be coupled to parts of the phase. These parts of the phase include the Project Start-Up/kick-off, the clarification phase, the review meeting, and the award.

6.4 CLARIFICATION PHASE MODEL OF RECOMMENDATIONS

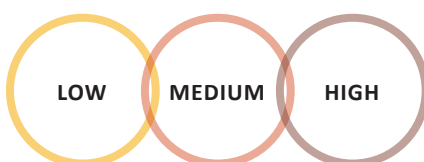
As introduced is the structure and the insights based on the results of previous chapters the basis to appoint certain recommendations to specific moments in the clarification phase or to certain processes in general. In Figure 6.1 the model with the recommendations that apply to multiple aspects of the clarification phase process is presented. In Figure 6.2 the recommendations are presented that are relevant for specific aspects of the process.



ADVICE & PEBBLE-STONES



INPUT/INVOLVEMENT



IMPORTANT MOMENT



Figure 6.1: model of recommendations which are relevant for multiple processes (pebble stone is a small milestone).

- past experiences).
- Zoom out to oversee the entire process and project (e.g. retain the relation with the project goals).

Value added plan

- Available arguments to reject an opportunity should be shared with the vendor as soon as possible.

Clients' team and role

- The role of the client includes assessment of the acceptability of the offer and facilitating of the vendor. Basic aspects for this are concerned with listening, observe, ask questions, deliver and demand information, and point out the blanks in the elaboration of the bid and the pre-planning of the project.
- Strive for openness and transparency (i.e.

delivering complete information to the vendor, make clear what is available, and deliver all information that is available on request of the vendor).

- Do not steer the vendor in a certain direction but retain the position to point out the blanks in their proposal (e.g. avoid steering comments labeled otherwise).
- Have a clear vision on what is necessary to award the project (i.e. the scope and level of detail of products or the level of trust).
- Do not accept reversion to classical manage, direct, and control from any involved persons or any party. Retain the envisioned roles during the clarification phase (rolvastheid).
- Have a high availability during the clarification phase.
- Manage only by exception; mainly active management of the vendor when the vendor

does not meet the agreements concerning the roles or when the client's interest are possibly harmed.

Lead

- Enable the vendor to retain and remain in the lead.
- Do not exert control through e.g. products to direct the vendor in a certain direction.

Expertise and information

- Client is expert in the project, vendor is the technical expert (information asymmetry).
- Facilitate information exchange in a dominant manner (e.g. consider the use of memos as overviews of available information).

Communication

- For a good communication between client

and vendor a high availability of the IPM team of the client is necessary.

- Consider carefully when to go into detail during meetings, in feedback, and in products and when to retain the outlines (balance and know what is demanded).

Moment of feedback; identification of blanks in products

Deliver information; facilitate the vendor

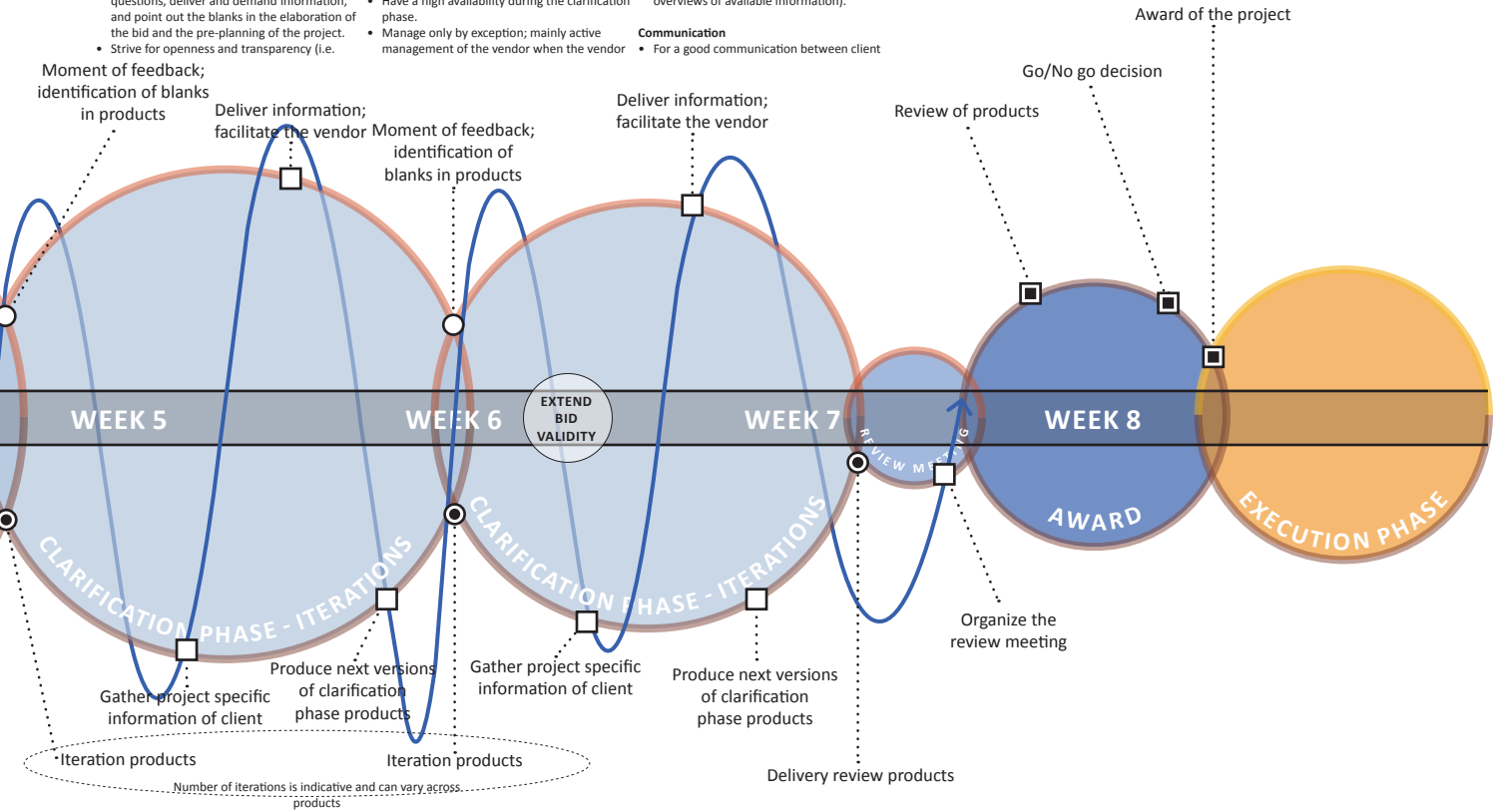
Moment of feedback; identification of blanks in products

Deliver information; facilitate the vendor

Review of products

Go/No go decision

Award of the project



Products

- The products should be comprehensive were necessary (e.g. project scope and quality management system), clear (dominant information should be leading), and explicit (only for singular explanation).
- No actual work (products) should be offered during the clarification phase nor should they be produced.
- Efforts made during the clarification phase pay themselves back during the execution of the project.

Process

- Do not exclude the client during the production (i.e. do not deliver the first products late in the process).
- Do not limit the focus on the production but also ensure a good process (e.g. alignment, management of expectations, and get to

know the clients' team on a more personal level, their capabilities (personal power), and past experiences).

- Zoom out to oversee the entire process and project (e.g. retain the relation the bid and with the project goals).

Value added plan

- Elaborate the value added plan according to the tender documents.

Vendors' team and role

- The role of the vendor includes being in the lead, be pro-active, and unburden the client. Basic aspects that are related to this are for the vendor to initiate, coordinate, and analyze for the client.
- As vendor indicate when the client reverts to manage, direct, and control (protect the lead).

- Do not accept reversion to classical manage, direct, and control from any involved persons or any party.
- Have a high availability during the clarification phase.
- Retain the envisioned roles during the clarification phase (rolvastheid).
- When it is unclear what the roles are, hire a certified Best Value advisor.
- Do not process feedback of the client indiscriminately.
- Strive for openness and transparency (i.e. do not 'surprise' the client with a product in the last week).

Lead

- Ensure that the role of being in the lead is fully understood and aligned with the client (hire Best Value expertise when necessary).
- Take the lead in an active manner.

- Expertise and information**
- Client is expert in the project, vendor is the Best Value expert (information asymmetry).
 - Manage the expectations of the client concerning the information exchange.
 - Indicate what is necessary and when something is expected from the client.

Communication

- Focus on the concept of dominant information in the products and in the communication with the client.
- Consider carefully when to go into detail during meetings and in products and when to retain the outlines (balance and know what should be delivered; also link with the project goals).

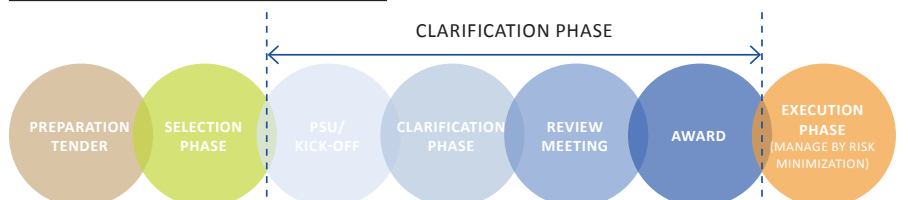
DURATION/IMPORTANCE

Importance indication within clarification phase

Average

Greater

PHASE



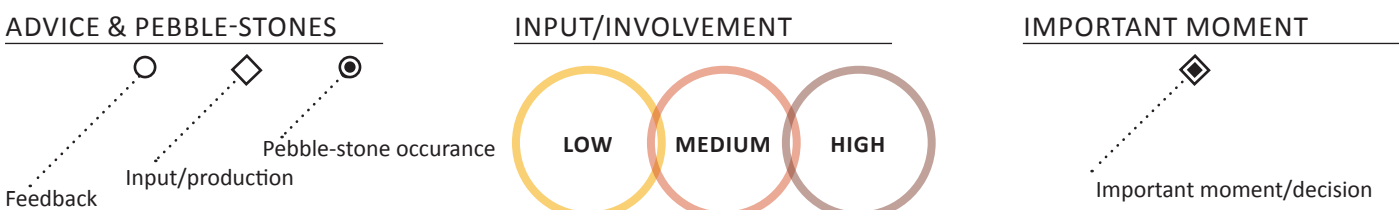
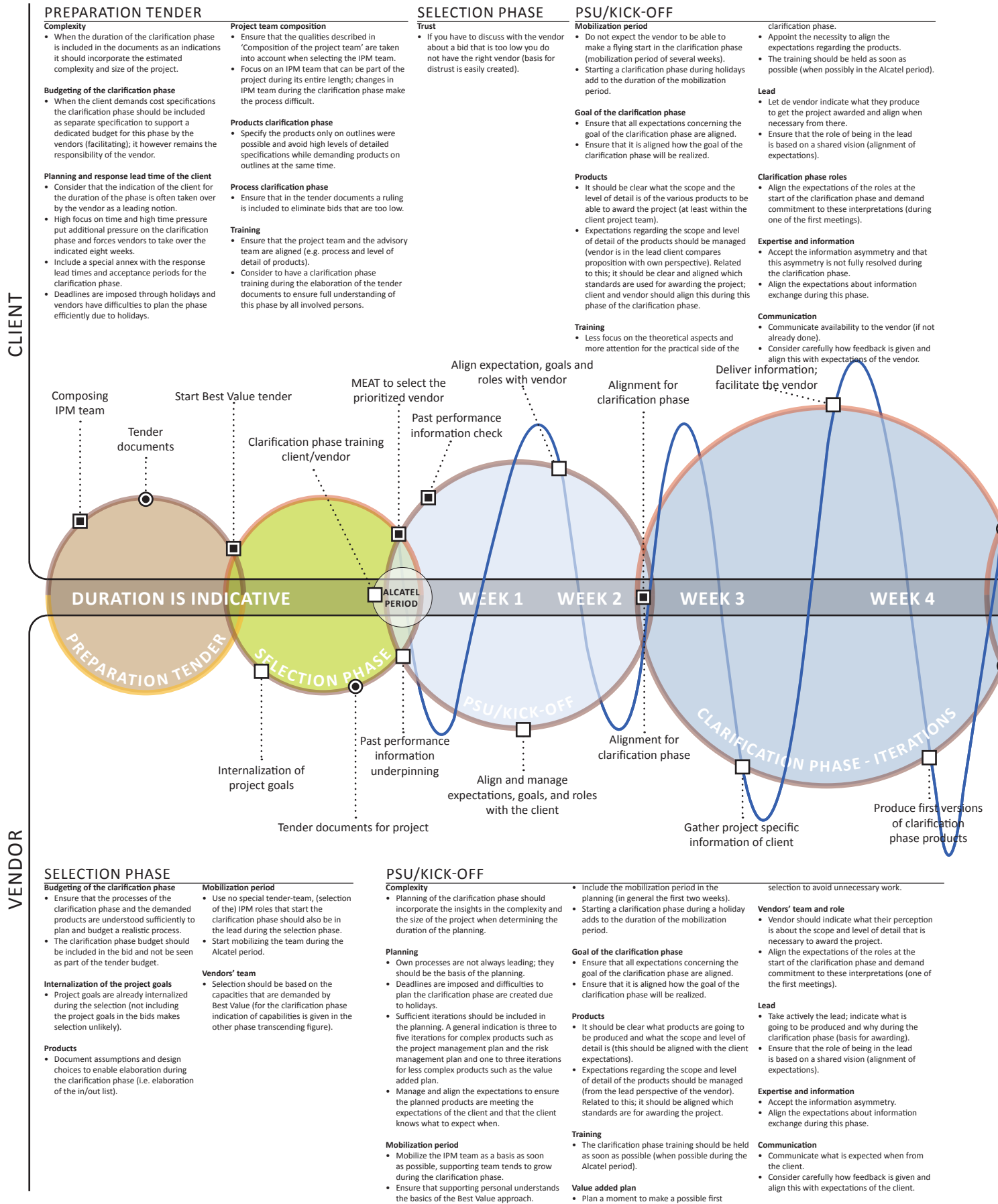


Figure 6.2: model of recommendations which are relevant for singular parts or processes (pebble stone is a small milestone).

CLARIFICATION PHASE

Planning

- During the clarification phase the client has to consider extending the period in which the bids of all vendors are valid and ensure that (when necessary) all vendors are asked to extend the validity of their bids.

Products

- The client should not implicitly use any uncertainty in the level of detail to demand more details.
- Consider process agreements to award the project and to demand certain products to be detailed further or added to the documents when a basis to award the project is developed.
- No actual work should be demanded during the clarification phase nor should it be allowed to be carried out.

Value added plan

- When arguments are available to reject an opportunity do not wait until they are all elaborated.

Process

- If there is any basis of distrust this should be communicated open and preferably taken away as soon as possible instead of using the products to demand more insights.

- Do not plan meetings without a request of the vendor.
- Do not focus on the production only but also on the process (e.g. alignment, management of expectations, getting to know i.e. the capabilities of the other team and past experiences).
- Zoom out to oversee the entire process and project (e.g. retain the relation with the project goals).

Clients' team and role

- Be critical to identify blind spots in the elaboration of the bid and the pre-planning.
- The client should not steer the vendor in a certain direction but point out the blanks in their proposal.
- Be able to retain the appointed roles during the clarification phase.
- Have a high availability during the clarification phase.

Lead

- Enable the vendor to retain the lead.
- Do not exert control through i.e. products to direct the vendor.

AWARD

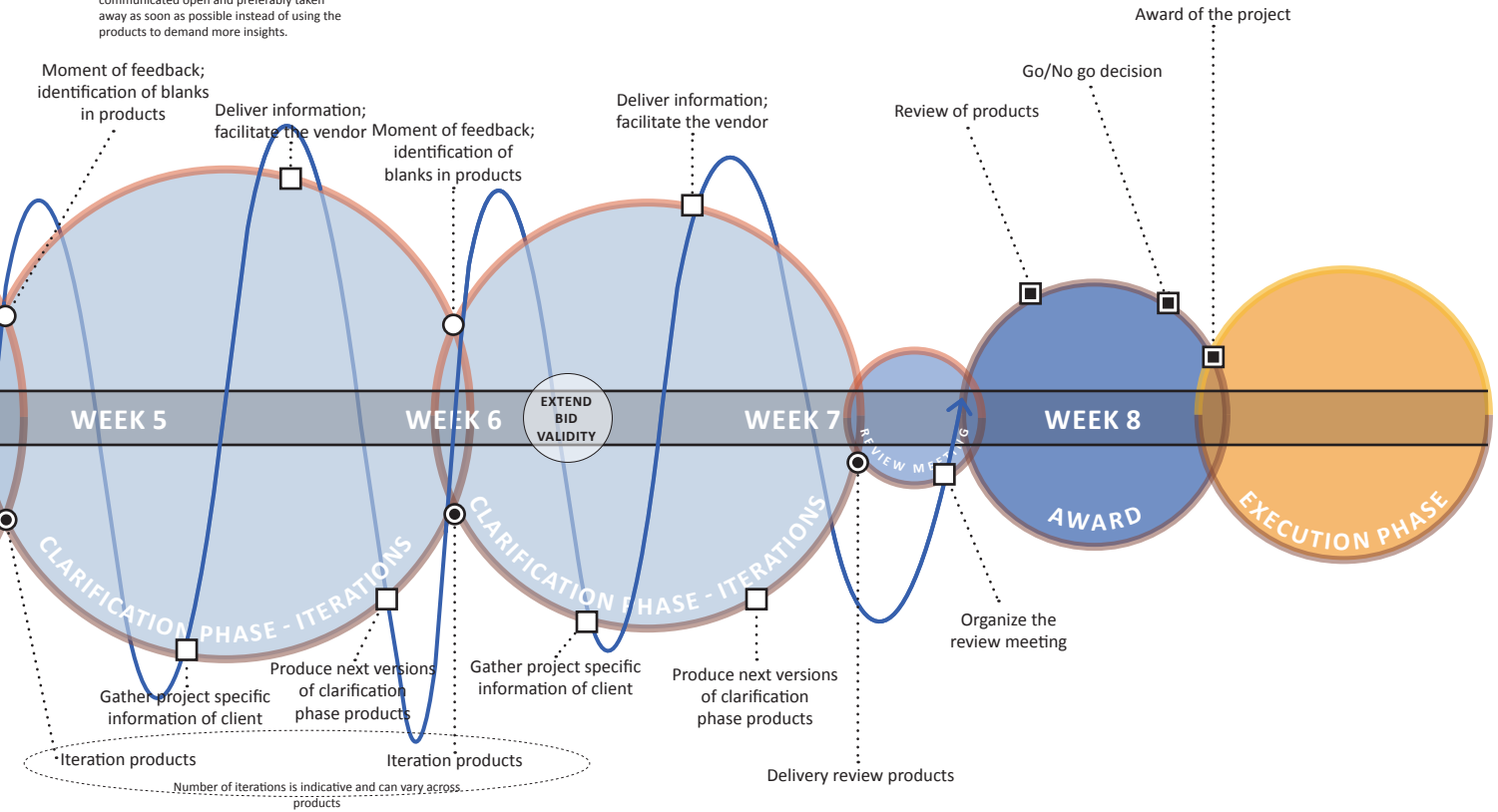
Awarding the project

- When the outline of the projects is sufficient it is possible to consider awarding the project. When necessary this can be realized through process agreements for specific aspects of the products which can be elaborated during an (additional) iteration after the award.

EXECUTION PHASE

Products

- Efforts made during the clarification phase pay themselves back during the execution of the project.



CLARIFICATION PHASE

Value added plan

- Elaborate the value added plan according to the tender documents.

Communication

- Focus on the concept of dominant information during the production of the clarification phase products.

EXECUTION PHASE

Products

- Efforts made during the clarification phase pay themselves back during the execution of the project.

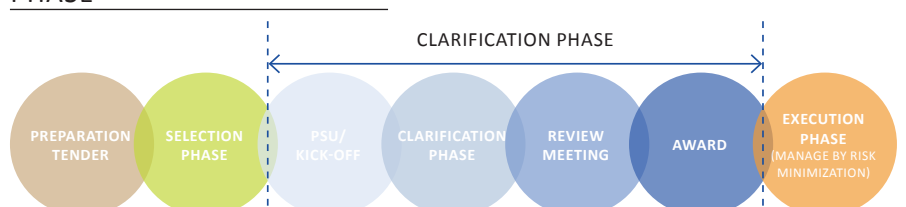
DURATION/IMPORTANCE

Importance indication within clarification phase

Average

Greater

PHASE



6.5 RECOMMENDATIONS VERSUS MAIN PROBLEMS

As an overview the recommendations in the models are linked to the main problems presented in the previous chapter to evaluate if the problems are covered sufficiently and to ensure that the model of recommendations support a more effective and efficient clarification phase process. These overview tables are included in Attachment I.

In the Tables the recommendations are ranked and indicated on which of the main problems they are expected to contribute to improvements. Some of the key recommendations are presented below to indicate how they are expected to contribute to a more effective and efficient clarification phase.

One of the most logical findings in the case studies relates to the problem that the experience with the Best Value approach is very limited. An important recommendation for especially the vendor (since the client has an advisory team) is that when anything is unclear regarding the clarification phase a certified Best Value expert should be hired to ensure the phase is fully understood (i.e. goal, roles, and products). Hereby is it noted that the clarification phase should already be fully understood during the selection phase to prepare properly and set a realistic budget. A Best Value expert could provide a significant amount of information regarding the Best Value approach to inexperienced or limited experienced vendors and reduce misinterpretations and underestimations.

One of the most important recommendations applies to the role of the client and vendor teams in the clarification phase. The role of the client includes assessment of the acceptability of the offer and facilitating of the vendor. Basic aspects for this are concerned with listening, observe, ask questions, deliver and demand information, and point out the blanks in the elaboration of the bid and the pre-planning of the project. The role of the vendor includes being in the lead, be pro-active, and unburden the client. Basic aspects that are related to this are for the vendor to initiate, coordinate, and analyze for the client. Important for the protection of the lead of the vendor is that they are responsible to appoint when the client reverts to manage, direct, and control or steps outside of their roles. Additionally to this description of the roles is the advice not to accept any reversions to classical manage, direct and control from anyone involved which also means that the teams must be able to retain their roles during the clarification phase.

Alignment of the roles early in the clarification phase process is necessary to avoid problems with reversion to traditional manage, direct, and control behavior by involved persons because the roles are not set. Clear roles and alignment is expected to contribute to breaking through the mechanism described in the analysis from the perspective of the theoretical framework. When the roles are clear from the start it is clear what can be expected from each other during the process. The advice to manage only by exception for the client is also related to the roles; the client only intervenes (and steps out of their role) when the agreements concerning the roles are not met by the vendor or when the client's interest are possibly harmed (which could mean that the bid is not what the expectations were). Intervention from either the client or vendor when the roles are not complied with is only possible when these are aligned properly from the start.

Another key advice that is given and that is expected to contribute significantly to the reduction of the mechanism that often occur during the clarification phase and leads to planning overruns is the alignment of the expectations regarding the scope and the level of details of the various clarification phase products. An important problem is that these aspects of the products are often not clear and when they become clear during the process of the clarification phase it almost naturally leads to rejection of products and/or planning overruns. Also does the client uses the uncertainty of the scope and level of detail that is necessary to award the project sometimes to demand more details which lead to detailed products instead of a focus on outlines. It is advised that the vendor is responsible from their lead role perspective for the management of expectations regarding the scope and the level of detail of the products. It is the vendor who should indicate what their perception is on the scope and level of detail that is necessary to award the project; they are the expert and are in the lead. An advice regarding the client in this is that they should have it clear within the clients' project team what the scope and the level of detail is of the various products to be able to award the project before they vendor presents their propositions.

It was concluded that the clarification phase is an important moment which should be used to develop a basis for trust (focus on verified trust) and cooperation with the project team of the client. As explained earlier is trust in the traditional sense not part of the Best Value approach. Beyond the Best Value approach is trust in itself often seen as an important basis for a good cooperation to realize the envisioned results and should be established in the basis during this phase. It is therefore recommended to plan moments were the focus is not entirely on the products (i.e. at the start of the phase to get to enable to let the teams to get to know each other). These moments should contribute to an open and transparent relation between the teams. Openness and transparency from both teams plays an important role in the development of trust and personal power. Use of past performance information in the elaborated bid could contribute to the development of verified trust; the type of trust Best Value tries to establish. Create transparency and be open towards the clients' team. Examples are that the vendor should appoint what they are (going) to do and be open for critics concerning blanks in the bid and the client should share complete information and be fully open in their concerns. Pre-planning of the project and elaboration of the bid are based on verified documents from the selection phase and further elaboration can and should contribute to verified trust. It is observed that in the contemporary clarification phase the concept of performance information is let go while it is a valuable tool to indicate that the elaboration of the bid and the pre-planning of the execution are based on successful past project. Lacking availability of performance information in the contemporary situation may enhance the necessity of more traditional trust settings for which it is advised to try to retain the focus on past performance information as a mean to develop verified trust.

Various recommendations are related to the problems with the planning of the clarification phase by the vendor. The most important recommendation for improvement of the process is to plan sufficient iterations in the planning. A general indication is three to five iterations for complex products such as the project management plan and the risk management plan and one to three iterations for less complex products such as the value added plan. Additionally to this are the notions that the complexity and size of the project contribute to the duration of the clarification phase. The clients' advice and the vendors' planning should include this notion when the organizations processes are planned. An observation which leads to a recommendation is to avoid a clarification phase (partly) during a holiday such as during the summer or set such a holiday as the deadline for the clarification phase since it is observed that it is valuable to let the clarification phase run as long as needed because interviewees observed that the efforts made will pay themselves back during the execution.

6.6 CONCLUSION

This chapter continued with the recommendations that were presented in the previous chapter and were based on the findings of the case studies. Developing a model that could contribute to improvements for the clarification phase and solve the observed problems is a central focus of the research question of this chapter.

4. What model for developing the clarification phase of the Best Value approach can be used?

The structure of the model is based on the Best Value approach and is enhanced with the preparation of the tender to accommodate specific recommendations regarding this phase that are normally not included in the depiction of the Best Value approach. The clear basic structure for the model is filled in with the formulated recommendations that can apply to processes that influence more phases or moments within the clarification phase and recommendations that apply to specific moments in the entire Best Value project.

Based on an analysis of the recommendations it can be concluded that the model of recommendations contains recommendations that are expected to contribute to a more effective and efficient clarification phase. These recommendations cover the observed problems. Based on this analysis and the findings of the previous chapter the following recommendations are distilled from the main solutions for the main problems. The models in this chapter can be consulted for a complete overview of the recommendations.

Experience with Best Value

Involved persons have almost no experience with the Best Value approach and/or the clarification phase.

- An important recommendation, especially for the vendor (since the client has an advisory team), is that when anything is unclear regarding the clarification phase a certified Best Value expert should be hired to ensure the phase is fully understood (i.e. goal, roles, and products).

Planning

The complexity and size of the project are not taken into account in both the advice for the planning of the clarification phase (client) and the actual planning (indication is often taken over by the vendor).

- Include the complexity and size in the indication for the duration (client) and the final planning (vendor) of the clarification phase.

The planning does not contain sufficient iterations to develop the envisioned products.

- Sufficient iterations should be included in the planning. A general indication is three to five iterations for complex products such as the project management plan and the risk management plan and one to three iterations for less complex products such as the value added plan.

Underestimation of the duration of the mobilization period (vendor).

Mobilize the IPM team as a basis as soon as possible; supporting team tends to grow during the clarification phase.

- Include the mobilization period in the planning (in general the first two weeks) (vendor).

Budgets set by the vendor for the clarification phase are not sufficient (relates to the scope and level of detail of the clarification phase products that are not clear).

- Ensure that the processes of the clarification phase and the demanded products are amply understood to plan and budget a realistic process.
- The clarification phase budget should be included in the bid and not be seen as part of the tender budget (vendor). Client could demand a cost specification of the clarification phase (facilitating).

Project teams and roles

Clarification phase roles that the teams of the client and the vendor team have to fulfill are not clear.

- The role of the client includes assessment of the acceptability of the offer and facilitating of the vendor. Basic aspects for this are concerned with listening, observing, asking questions, delivering and demanding information, and pointing out the blanks in the elaboration of the bid and the pre-planning of the project.
- The role of the vendor includes being in the lead, being pro-active, unburdening the client, and answering questions of the client. Basic aspects related to this are for the vendor to initiate, coordinate, and analyze for the client.
- Align the expectations of the roles at the start of the clarification phase and demand commitment to these interpretations (one of the first meetings).

Tendency to revert to manage, direct, and control attitudes.

- Do not accept a reversion to the classical manage, direct, and control from any of the involved persons or parties. Retain the envisioned roles during the clarification phase.
- Only manage by exception: this means active management of the vendor when the vendor does not meet the agreements concerning the roles or when the client's interests are possibly harmed (client).
- Indicate when the client reverts to a manage, direct, and control attitude (vendor).

The vendor is often not in the lead during the entire length of the clarification phase.

- Ensure that the role of being in the lead is fully understood and aligned with the client (vendor).
- As vendor, indicate when the client reverts to manage, direct, and control (protect the lead) (vendor). Manage only by exception when the vendor does not meet the agreed roles and corresponding lead position (client).

Products

The scope and level of detail of the products of the clarification phase are not clear.

- Have a clear vision of what is necessary to award the project before the clarification phase commences (client).
- The vendor should have a clear vision on what products are going to be produced and what the scope and level of detail is.
- Expectations regarding the scope and level of detail of the products should be managed and aligned at the start of the clarification phase (from the lead perspective of the vendor).

Process

A basis of trust is lacking or there is even a basis for distrust which results in demanding more details.

- Use past performance information (when available) of successfully delivered earlier projects to develop a verified trust base (vendor).
- Process capacities of the IPM roles of the project teams are important for a successful clarification phase.
- Plan moments where the focus is not entirely on the products (e.g. at the start of the phase in order to enable the teams to get to know each other).
- Be open and pursue transparency to development trust and establish personal power (e.g. share complete information and pinpoint concerns and observed risks).



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VALIDATION

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7.1 INTRODUCTION

In this chapter a selection of the observed problems of the clarification phase and corresponding recommendations will be validated through a survey among members of project teams (IPM) which have experience with one or multiple clarification phases of Best Value projects of Rijkswaterstaat. Central in this chapter will be the research question that is concerned with the validation of the results.

5. What are the expectations concerning this model about its applicability, effectiveness, and efficiency of the clarification phase of the Best Value approach?

First the survey and its structure will be introduced (7.2 - 7.5) after which the results are introduced (7.6 - 7.8).

7.2 SURVEY METHOD

A survey is operationalized in this study in the form of a questionnaire. Questionnaires enable a data-gathering technique that collect through self-reports quantitative and/or qualitative data from an individual unit which is part of a group. This information is in this study based on knowledge, opinions, and experiences in Best Value projects (Mills, Eurepos & Wiebe (2010).

The purpose of the survey is briefly appointed in the introduction and has primarily two focal points:

- To validate a selection of main problems of the clarification phase observed in this study.
- To validate a selection of main recommendations which are represented in the model of recommendations.

A survey is preferred because it enables the study to collect data with a relative rapid turnaround and with a low effort compared to for example the interviews conducted earlier in this study (Creswell, 2009). This is the specific reason for the survey because it enables a relative quick validation of the results. In-depth data collection is expected not to be necessary anymore at this moment of the study.

The survey will be a cross-sectional data collection because it collects data on a specific point in time. Self-administrated (online) questionnaires are the form in which the survey will be carried out (Creswell, 2009). The main instrument for this survey is the website thesistools.nl which enables participants to fill in the questionnaires digitally and collect the results afterwards.

7.3 POPULATION AND SIZE OF THE SAMPLE

The population is composed out of the team members of the IPM teams of both the client and the vendors of the Best Value projects which have completed a clarification phase. The size of the IPM team is in general five or less and the number of projects used for the questionnaire is eight. Due to some doublings in positioning of roles by some participants and a number of persons who are not working in the field or at the corresponding firms the population is 69 persons (37 client employees and 32 vendor employees). Because the population has a relative limited size the population will also be the size of the sample; efforts are made to gather results from the entire population. This means that there will be no specific sampling strategy to select a random sample. It is important to note that the data from client and vendor is collected separately to enable conclusions regarding possible differences. Potential participants have been invited per case to be able to conclude if the response rate is representative or only participants contribute to the results from a selective number of cases. As a result have sixteen surveys been operationalized to collect data simultaneously.

Additionally to this primary group who will be approached for the survey the Best Value team of Rijkswaterstaat is approached as well to gather expert input for the validation of the selected results. This group of experts consists of four persons and serves more as a benchmark for the results of the other two groups (client and vendor).

7.4 STRENGTHS AND WEAKNESSES

As with all methods the survey technique has certain strengths and weaknesses. The main aspects will be appointed briefly in this section. Major advantages of a survey are that it is relative easy to cover a large group of persons against a low amount of money and effort (Singh, 2006). Another major advantage is that the problems and the recommendations gain value as they are validated through a larger group that represents more project than the case study. This means that when the findings are validated successfully they can become more representative.

The proposed survey for the validation of the model of recommendations can raise various problems. A major disadvantage is that the questions can be misinterpreted due to lacking willingness or due to impersonality (Singh, 2006). Another problem that can arise is the selection of the sample which has to be large enough to generate a representative group of respondents; this applies less to this study since the entire population is invited to participate. Another important disadvantage may arise when the response rate is too low which can mean that the results are not representative and it may not be possible to validate the results of the study (e.g. only client responds or certain projects). The structure of the survey has been adapted to be able to appoint these possible weaknesses; e.g. through the separate collection of data with the help of multiple surveys for cases and groups.

7.5 STRUCTURE OF THE SURVEY

The questionnaire that will be used to carry out the survey is structured around the main problems observed in paragraph 6.5. These main problems will be grouped in the five main categories presented in that paragraph to structure the questionnaire:

- Theme 1: Experience with Best Value.
- Theme 2: Planning of the clarification phase.
- Theme 3: Project team roles.
- Theme 4: Clarification phase products.
- Theme 5: Clarification phase process.

Per theme a selection is made of the main recommendations which are also introduced in paragraph 6.4 and 6.5. Per theme first the main problem is presented after which the main recommendation(s) are presented as a statement. The respondent can appoint if they agree that the problem really exists and to which extent the participant expects that the recommendation is a solution for the problem and that it contributes to improvements of the clarification phase. At the end of each theme the participant can appoint anything in an open comment section. The statements of the problems and the recommendations are evaluated by the participants on a five-point scale (Likert-scale) (Mills, Eurepos & Wiebe (2010):

- 1: Strongly agree.
- 2: Agree.
- 3: Neutral.
- 4: Disagree.
- 5: Strongly disagree.

An overview of the questionnaire structure and content can be found in Attachment J. This attachment also includes the e-mail that is used to approach the members of the sample. Five days after the first invitation a similar e-mail was sent as a reminder to the survey.

7.6 RESPONSE RATE AND RESPONSE BIAS CHECK

Important for the accuracy is to consider the realized response rate and if the response is (un-)biased (Baruch & Holtom, 2008, Cook, Heath & Thompson, 2000, Fan & Yan, 2010, Leslie, 1972, Sax, Gilmartin & Bryant, 2003). The average response rate of the survey was 49% for the clients' participants and 69% for the vendors' participants. The survey overall response rate was 58%. According to average response rates found by Baruch et al. and Fan et al. this response rate can be considered to be normal or even on the high side for this type of surveys.

Perhaps more important to consider at this point is if the responses can be considered to be unbiased. The structure of the survey (sixteen individual surveys) enables to indicate if the responses are representative considering both the projects and possible differences between client and vendor. In all projects at least one invited participant participated in the survey on both the client and vendor side. It is therefore concluded that the responses are sufficiently in size and diversity to avoid problems due to biased responses.

7.7 GENERAL RESULTS

Criteria are formulated to appoint the results of the survey and enable analysis of the data. The criteria are first used in this paragraph on a general level for the overall results and for the various approached groups (client, vendor, and Best Value experts of Rijkswaterstaat). In the next paragraph the focus shifts to the specific topics of the survey and the results are analyzed more specific.

For the analysis of the results criteria are formulated to appoint the results of the survey. The criteria are first used in this paragraph on a general level for the overall results and for the various approached groups (client, vendor, and Best Value experts of Rijkswaterstaat). In the next paragraph the focus shifts to the specific topics of the survey and the results are analyzed more specific. The criteria are:

- 1.00 - < 3.00, agree; validated findings.
- 3.00, neutral; needs to be carefully considered if it is valid; interviews need to be revisited and the comments in the survey need to be addressed.
- > 3.00 – 5.00, disagree; not a valid finding and needs to be reconsidered.

Additionally the following criterion is applied as additional validation to ensure the findings of this study are as representative as possible.

- > 2.50 – < 3.00; consider the validity by addressing the comments in the survey and when necessary a revisiting of the interviews.

ANALYSIS OF THE RESULTS

In Table 7.1 the overall results are presented based on the average findings of the surveys. A distinction is made between the client and vendor besides the general average. According to the criteria the findings of this study can be seen as validated with an overall average of 2.17 which is close to the 'level 2 agree' answer of the survey and well within the criterion for agree. Also the average of the client and the vendor with respectively 2.11 and 2.22 differ slightly but both meet the third criterion of the evaluation to validate the findings. Also the additional criterion is met since the results are below the 2.50. The minimum of 2.97 on the average, 3.13 for the client, and 3.00 for the vendor however indicate that it is important to consider certain items of the survey in a more specific manner as will be realized in the next paragraph. The Best Value experts of Rijkswaterstaat which were invited for the survey as well have an average score of 1.90 which leads to the conclusion that the results are validated successfully from this perspective as well.

Table 7.1: general findings of the survey for the various target groups (note that Min. and Max. represent a different scale than usual and align with the five point scale used in the survey).

Group	n	Min.	Max.	Mean	SD
Average (client + vendor)	40	2.97	1.46	2.17	0.46
Client	18	3.13	1.47	2.11	0.49
Vendor	22	3.00	1.30	2.22	0.50
Best Value experts	4	3.50	1.00	1.90	0.71

CONCLUSION

Regarding the general findings can it be concluded that the results of the survey indicate that the findings of the study are valid. This means that the results can be seen as representative beyond the selected cases of this study as well. Furthermore can it be concluded that considering the minimum behind the averages emphasizes the importance to consider the individual findings per theme and per statement to address possible deviations.

7.8 THEME SPECIFIC ANALYSIS OF RESULTS

In this paragraph each theme of the survey will be appointed briefly and some result will be discussed in-depth when the applicable criterion suggests this for the results of the specific statement. In Figure 7.1 an overview is presented of the results of the survey per theme and statement. In Attachment K all the results of the survey are specified in detail. The focus will be on the average scores per item and were necessary a specification from the perspectives of either or both the client and the vendor.

THEME 1: EXPERIENCE WITH BEST VALUE

The first main problem was concerned with the limited experience with the clarification phase of the Best Value approach. Considering the results of the survey this problem is concluded to be valid (2.03). Another confirmation that this problem exists at this moment in time can be represented by the limited size of the population of the survey.

The main recommendation is concerned with the advice to hire a certified Best Value expert when there is limited experience with the clarification phase. This recommendation can also be considered to be confirmed by the average response on the survey (2.38). The vendors have however scored this recommendation remarkably lower than the client (1.89 vs. 2.77). When the comments are considered it is notable that the various participants of especially the vendors note that the hiring of a Best Value expert may jeopardize the role of the expert. This is a remarkable reaction since this might mean that the expert role is not understood sufficiently since a Best Value expert is an expert with different expertise than the vendor. Another observation is that various survey participants note that the Best Value expert does not necessarily needs to be a certified expert. This can be true but also means that a risk can brought in when it cannot be ensured the expert has the necessary expertise and it is therefore better to recommend a certified Best Value expert. Certified can therefore also be seen as a form of past performance information. Finally, in one reaction it is stated that when the experience with Best Value among vendors increases the need for this advice subsides. This is a logical remark since the recommendation is directly linked to the problem that there is a lacking experience. These type of comments were almost entirely linked to lower answers (> 3) which explains the lower average among vendors participants. Considering the type of comments this recommendation is considered to be validated.

THEME 2: PLANNING OF THE CLARIFICATION PHASE

The first problem of this theme is concerned with the complexity and size of the project and that these aspects are in general not incorporated in the advised (8 week indication of Rijkswaterstaat) duration and the actual planning of the clarification phase. Considering the score (2.64) this problem can be seen as validated but the additional criterion advises to consider the validity based on the comments and when necessary the interviews. There are not many comments concerned with this problem. The attention directed at this issue is mainly concerned with the question if complexity related to the duration of the clarification phase; the size of the project is not mentioned as critic. The complexity and size of the project are not seen as the only reason for certain duration, logically also the number of iterations is perceived as important. Reinterpretation of the results of the interview however confirms the initial disposition of the relation between complexity and the size of the project for the duration. Relevant and important reasons mentioned are aspects such as the number of work packages that need to be elaborated and the correlation between various (parts of) products. The interviews and the results of the survey together lead to the conclusion that this observed issue is valid.

The recommendation to include the complexity and the size of the project in the advice for the duration and the actual planning for the clarification phase can be concluded to be a valid recommendation (2.19). There are no significant differences in the results of the client and the vendor which need to be addressed.

The second central problem in this theme is related to the number of iterations which are often considered to be too limited in number and/or too short to result in the envisioned products of the clarification phase. Based on the primary criteria this problem can be concluded to be validated to be correct (2.67) but the additional criterion leads to an additional analysis. The comments in the survey seem to confirm the image that was collected during the interviews that the number of iterations is relative low (in the survey linked to the lead of the vendor to adjust during the clarification phase and thus means that the initial number of iteration planned is not correct) or too short (in a comment it is mentioned that there was a significant amount of stress during the iterations to produce the products). It is concluded that the survey result in term of average does not correspond with the expected value when reviewing the comments. Since the average meets the standards of the basic criteria, the nature of the comments, and the interviews this second problem is concluded to be valid.

The final recommendation of this theme is concerned with sufficient iterations between the client and the vendor to realize acceptable final products of the clarification phase. This main recommendation has a relative high score and is confirmed to be correct and therefore successfully validated (2.17).

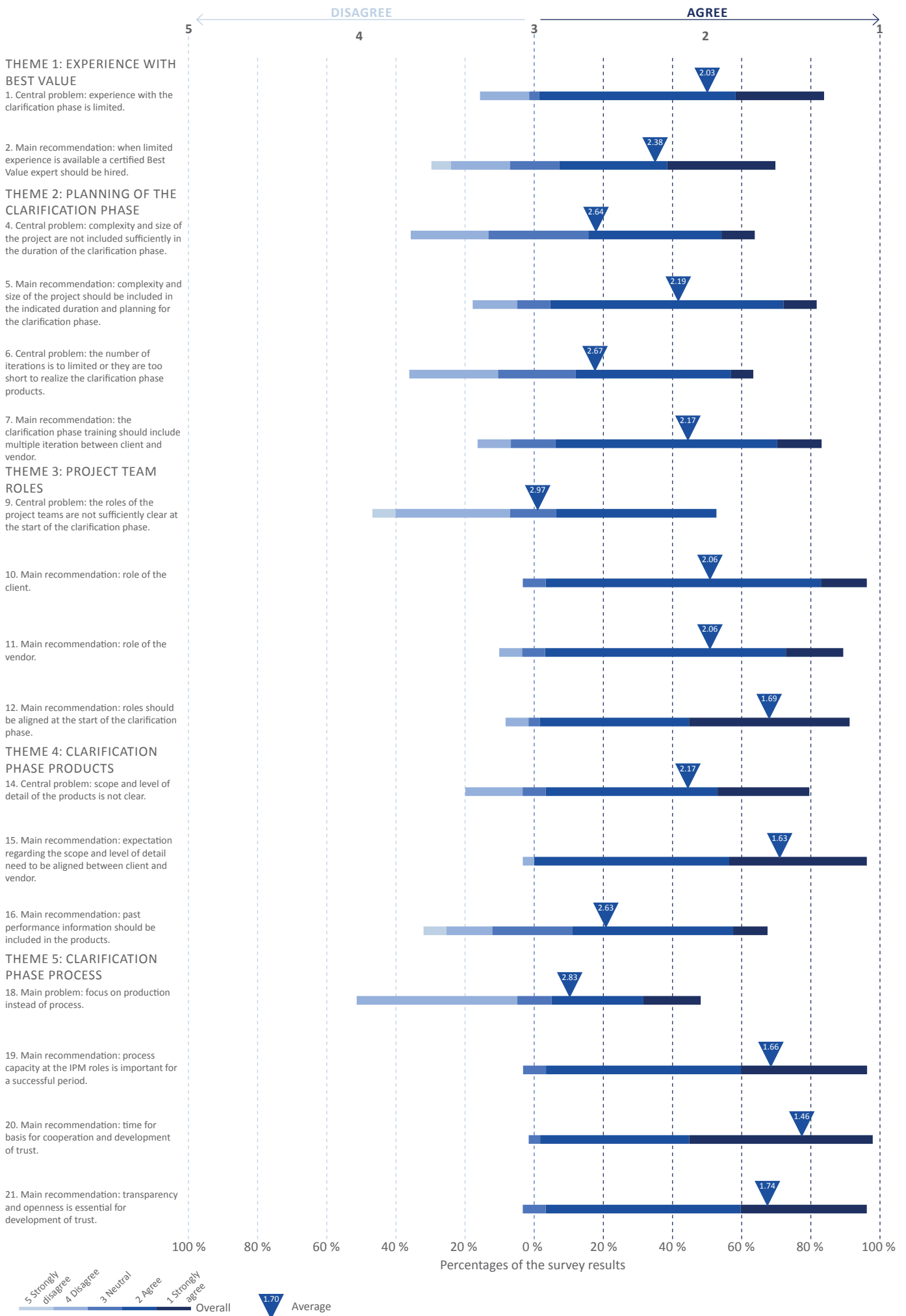


Figure 7.1: the averages per item of the survey presented in responses in percentages and the average (in Attachment L the averages for the client and the vendor are presented in a similar manner as well).

THEME 3: PROJECT TEAM ROLES

The central problem in the third theme is concerned with the lacking clarity of the roles at the start of the clarification phase. This problem scored a relatively low 2.97 which means that this problem needs to be addressed. In the comments of this theme not much feedback is given regarding the presented problem which could explain the more neutral score. One respondent appoints that the theoretical roles are clear. This could mean that the problem is interpreted as too narrow. This means that the roles as such are understood sufficiently but the translation of this theoretical understanding into practice is lacking. This could also explain the high score for the recommendation to align the interpretation of the roles and their fulfillment during the phase at the start of this phase. The results of the interviews are interpreted again to consider if the results of the survey could give rise to restatement of this problem. The problem described in this and previous section can be concluded to be valid but is refined to increase its validity and clarity.

Problem presented earlier in this study:

- Clarification phase roles that the teams of the client and the vendor team have to fulfill are not clear.

Proposed refinement as a result of the survey:

- It is not sufficiently clear how the roles of the teams of the client and the vendor have to be fulfilled during the clarification phase and the expectations regarding these roles between client and vendor are not sufficiently aligned.

To validate the recommendations the survey presents descriptions of the roles of both the client and vendor as a basis for some recommendations in this study to add to the understanding of the roles. Both the representation of the role of the client (2.06) and the vendor (2.06) can be concluded to be valid.

The follow up recommendation to align the expectations and the way these roles are fulfilled during the clarification phase at the start of the phase can also be concluded to be valid (1.69). This means that the participants underline the importance of the alignment between client and vendor at the start of the clarification phase.

THEME 4: CLARIFICATION PHASE PRODUCTS

The main problem presented in the fourth theme is related to the products of the clarification phase. The presented statement related to the lacking clarity regarding the scope and the level of detail of the proposed products of the clarification phase. This proposition can be concluded to be confirmed by the validation with an average score of 2.17.

The first recommendation relates to the alignment considering the expectations of the content and level of detail of the products which is necessary to award the project at the beginning of the clarification phase. This management of the expectations early in the process can be concluded to be validated with a high average score of 1.63.

The second recommendation is concerned with the use of past performance information in the products of the clarification phase products. The average score of this recommendation (2.63) is more neutral and leads to an additional analysis of possible recommendations and a revisiting of the interviews to consider the validity of the recommendation and apply possible refinements. From the comment section in the survey it becomes clear that some of the participants indicate that they understood past performance information as KPI's which is a clear misinterpretation of what is meant by the recommendation. These participants tended to score neutral since it is a fixed aspect of the clarification phase products. Some participants indicate that past performance information should play a major part in the selection phase and that it is considered to be difficult to apply past performance information in the clarification phase. It is notable that one of the participants which scored this recommendation low indicates that the use of past performance information might be useful to enhance the trust between client and vendor. This is exactly why this recommendation is included. Past performance information could i.e. reduce the request for more details if the proposed processes are successfully used in the past by the vendor. Based on the score and the nature of the comments of this recommendation it is considered to be a valid recommendation although it is clear that it needs the explanation provided in this study to create sufficient understanding.

THEME 5: CLARIFICATION PHASE PROCESS

The main problem in the fifth theme relates to the tendency to focus too much on production of the products instead of i.e. a process which contributes to sufficient alignment between the teams. This problem scored more neutral with a 2.83 on average. One of the respondents indicates that there sometimes is a lack of focus on production and too much on the process. Another respondent indicates that when the products are intensively discussed the process follows naturally. This means that there should be sufficient iterations of course to facilitate the process between client and vendor. As a result it can be concluded that the observed problem can be validated but it can depend on the project and the design of the process; some project had more iterations planned than others. This means that some projects interpret that this problem is not an issue relating to the process designed by the vendor while in other projects this problem can occur due to the nature of the clarification phase was structured.

The recommendations in this theme relate to the process as well. The first recommendation relates to the capacities the IPM roles need to possess; process capabilities. This recommendation is concluded to be valid with a score of 1.66.

The second recommendation also relates to the problem and is concerned with the necessity to undergo a process during the clarification phase with space to develop a basis for cooperation and to develop trust. This recommendation can notably be considered to be confirmed with a high score of 1.46.

The third recommendation relates to the importance of transparency and openness during the clarification phase as important basics. This recommendation can also be considered to be valid with a score of 1.74.

7.9 CONCLUSION

In this chapter the validity of the findings is checked through the use of a survey. The following research question was the basis for the validation process.

5. What are the expectations concerning this model about its applicability, effectiveness, and efficiency of the clarification phase of the Best Value approach?

It was essential to validate a selection of problems and recommendations since the entire model is too all-encompassing to validate entirely through a survey. The selection is made from the main problems and corresponding main recommendations presented in previous chapters. The problems and recommendations used are formulated as statements in order to present and check them with correspondents to see if they find them to be either a problem or a sound recommendation that contributes to an enhanced performance of the clarification phase and a reduction of the observed problem.

Five categories were used which represented the main categories of problems observed from the case studies. It is concluded that the observed problems and the proposed recommendations are valid with an average of 2.17 (agree; on a Likert scale of five with one as maximum) on the survey which had a high response rate (58%) spread over all projects from which team members were invited. The consulted Best Value experts at Rijkswaterstaat confirmed this positive image gathered from the survey as well with an average of 1.90 on the same questionnaire.

Only a few problems and recommendations had a more neutral average score. These items are all addressed systematically to consider the validity of all findings. Addressing an item happened systematically through the interpretation of comments from the survey and an additional interpretation of the results of the interviews. This resulted in the conclusion that all items can be ensured to be valid based on the collected information. One problem was restated to make it more punctual and ensure its validity. This problem was presented earlier in this study:

- Clarification phase roles that the teams of the client and the vendor team have to fulfill are not clear.

Proposed refinement as a result of the survey:

- It is not sufficiently clear how the roles of the teams of the client and the vendor have to be fulfilled during the clarification phase and the expectations regarding these roles between client and vendor are not sufficiently aligned.

Overall, it can be stated that the findings of the study have a high validity and that it is expected that this high degree of validity is also applicable to the other problems and the entire model of recommendations. This also means that the findings of this study have a high level of representativeness for the application of the clarification phase at Rijkswaterstaat since the findings are validated with all relevant projects that implemented this phase during the past years. This can be underscored by the fact that all items presented in the survey scored above the 3 (agree).



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CONCLUSION, DISCUSSION & FURTHER RESEARCH

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8.1 INTRODUCTION

In this closing chapter of the report the final conclusions are presented which are structured according the structure of this study that is based on the research questions and the problem statement. After the final conclusion the discussion and suggestion for further research are presented.

8.2 CONCLUSION

The clarification phase is the most important phase of Best Value because it stimulates vendors to further engage with the project and supply more details on how they will deliver their propositions made during the clarification phase. It is the phase after the selection during which one vendor is selected and the phase before the actual execution of the project. The objective of the clarification phase is for the vendor to clarify their proposal and develop a final and acceptable proposal to the client. In literature it is observed that the clarification phase is the least developed part of the Best Value approach. During the application of the clarification phase Rijkswaterstaat observes a structural exceeding of the duration of this phase with an average of more than fifty percent at their Best Value projects. The exact reasons behind the structural exceeding are not clear. The clarification phase is not sufficiently developed in the available Best Value literature to facilitate a better performance during its application. This gap in theory and the observed problems at Rijkswaterstaat with the clarification phase are selected as a knowledge gap. For this study this results in the following problem statement:

The clarification phase of the Best Value approach is not developed sufficiently in order to realize successful implementation at Rijkswaterstaat and attempts to use the clarification phase at Rijkswaterstaat did not lead to the envisioned results of the clarification phase within the planned time.

The problem statement relates to the two main issues. The first problem relates to the lack of actual knowledge of the clarification phase of the Best Value approach in available literature. This lack of knowledge is reflected in the second problem: problems with the implementation of the clarification phase at Rijkswaterstaat result in the lack of results envisioned by the Best Value approach within time and in a satisfying manner.

The goal of the study was to develop a model for the clarification phase of the Best Value approach for Rijkswaterstaat and its vendors to enhance the performance of this important phase. Evaluating how the clarification phase of the Best Value approach has been used during past projects at Rijkswaterstaat, and how it could be refined and further implemented were central topics. This means that the envisioned model should enable Rijkswaterstaat to use the clarification phase in a more effective and efficient manner.

The main research question was formulated as such to develop a model that could be seen as an answer to the current issues and the main problem stated above. The main research question is concerned with the problems from the central problem statement and the development of the model. To address the main research question, various research questions have been formulated to guide the study. First, these research questions will be appointed briefly before addressing the main research question in the final section of this conclusion. The complete conclusions for each research question can be found at the end of each chapter.

1. What is the clarification phase and what makes it successful according to the Best Value theory?

The clarification phase is the second phase of the Best Value approach. Its objective is for the vendor to clarify the scope of the work to be executed; identify if the vendor's proposal is acceptable to the client; clarify the expectations of the client; and finalize an acceptable offer for the client. It is important that the vendor further engages with the project and pre-plans the actual execution of the project in detail. The clarification phase is considered to be so important as it develops the basis for the realization of the project. It is concluded that the phase is successful when the objectives of the clarification phase are realized and the project is awarded within the envisioned planning which should be the shortest possible time.

2. What selection of relevant theoretical perspectives could be used for the theoretical framework underlying the clarification phase of the Best Value approach?

Central in the selection of the theories for the theoretical framework is the understanding of the clarification phase. The clarification phase is concerned with the development of the proposal of the vendor to the client and is considered as one of the filters and safeguards of the Best Value approach. The clarification phase is a process that envisions the production of specific products such as the Project Management Plan, a Risk Management Plan, a detailed planning, and the project scope. The interaction between client and vendor and the process to develop the envisioned products during a project are central in the agency and stewardship theory. From a theoretical perspective, the Best Value approach shows significant similarities with the stewardship theory in its approach of the client-vendor relationship and has practically no similarities with the agency theory. Considering the insights in the application of the clarification phase, it is observed that there are also similarities with the agency theory (i.e. lacking information exchange during the clarification phase, relapsing into control-oriented management styles, and lacking trust regarding the performance of the vendor). The observation that behavior relating to a principal-agent relationship is displayed during the clarification phase explains why the implementation of the clarification phase experiences problems, structurally deviates from the planning, and does not align with the envisioned process of the Best Value approach.

3. How did Rijkswaterstaat and their vendors implement the clarification phase of the Best Value approach and what were the results?

A multiple case study was designed and carried out through the analysis of project documentation and interviews with persons involved in the central teams (IPM) of both the client and the vendor of four Best Value projects to get insight in the implementation of the clarification phase. As a result it is concluded that the structural overrun of the planning which was an important reason for this study can be seen as a symptom for various issues that arise during the clarification phase. Important examples relate to a lacking understanding of the roles of the clarification phase, difficulty to retain these roles, and issues regarding the scope and level of detail of envisioned products. A selection of main problems is ordered in five main categories relating to the experience with Best Value, the planning, the project teams and the roles, the products of the clarification phase, and the process.

The theoretical framework has been used to analyze the clarification phase practice as well and it is concluded that the initial conclusions regarding the theoretical framework are confirmed by the case studies. This means that the theoretical tenets of the stewardship theory fit with the Best Value approach in practice there are significant elements of the agency theory present which hamper the clarification phase from a Best Value perspective.

4. What model for developing the clarification phase of the Best Value approach can be used?

Recommendations are formulated based on the observed problems in the case studies and are structured in a model. The structure of the model is based on the Best Value approach and is enhanced with the preparation of the tender to accommodate specific recommendations regarding this phase that are normally not included in the depiction of the Best Value approach. The clear basic structure for the model is filled in with the formulated recommendations that can apply to processes that influence more phases or moments within the clarification phase and recommendations that apply to specific moments in the entire Best Value project.

5. What are the expectations concerning this model about its applicability, effectiveness, and efficiency of the clarification phase of the Best Value approach?

Abovementioned five categories of problems that resulted from the case studies are used in a survey to validate the results. The survey also included the main recommendations per theme. It is concluded that the observed problems and the proposed recommendations are valid with an average score of 2.17 (agree; scored on a five-point scale; 1 is the maximum score) on the survey which had a high response rate (58%) spread over all projects of which team members were invited. Consulted Best Value experts at Rijkswaterstaat confirmed this positive image gathered from the survey as well with an average of 1.90 on the same questionnaire.

The results of the five research question are the underlying answers for the conclusion regarding the main research question of this study. The main research question as posted at the beginning of this report will be concluded upon in the following section.

What model for the clarification phase of the Best Value approach, based on experiences from preliminary application during Best Value projects of Rijkswaterstaat, theory concerned with the clarification phase of the Best Value approach, and literature concerned with theories of this type of project phase, can be used for infrastructural projects at Rijkswaterstaat to enhance its performance?

Analysis of the literature available on the Best Value approach and the reconnaissance of evaluations of Best Value projects at Rijkswaterstaat enabled this study to develop an initial basis and select a theoretical framework for analysis and interpretation of results. Multiple cases were studied which resulted in the main problems that occur during the clarification phase. The conclusions of the case studies are coupled to recommendations that envision an enhancement of the performance of this phase in future projects. As appointed are the recommendations structured in a model of recommendation. Based on the analysis of the model the following recommendations are concluded to offer main solutions for the main problems. Per theme the main problems and the corresponding main recommendations are introduced.

Experience with Best Value

Involved persons have almost no experience with the Best Value approach and/or the clarification phase.

- An important recommendation, especially for the vendor (since the client has an advisory team), is that when anything is unclear regarding the clarification phase a certified Best Value expert should be hired to ensure the phase is fully understood (i.e. goal, roles, and products).

Planning

The complexity and size of the project are not taken into account in both the advice for the planning of the clarification phase (client) and the actual planning (indication is often taken over by the vendor).

- Include the complexity and size in the indication for the duration (client) and the final planning (vendor) of the clarification phase.

The planning does not contain sufficient iterations to develop the envisioned products.

- Sufficient iterations should be included in the planning. A general indication is three to five iterations for complex products such as the project management plan and the risk management plan and one to three iterations for less complex products such as the value added plan.

Underestimation of the duration of the mobilization period (vendor).

Mobilize the IPM team as a basis as soon as possible; supporting team tends to grow during the clarification phase.

- Include the mobilization period in the planning (in general the first two weeks) (vendor).

Budgets set by the vendor for the clarification phase are not sufficient (relates to the scope and level of detail of the clarification phase products that are not clear).

- Ensure that the processes of the clarification phase and the demanded products are amply understood to plan and budget a realistic process.
- The clarification phase budget should be included in the bid and not be seen as part of the tender budget (vendor). Client could demand a cost specification of the clarification phase (facilitating).

Project teams and roles

It is not sufficiently clear how the roles of the teams of the client and the vendor have to be fulfilled during the clarification phase. The expectations regarding these roles between client and vendor are not adequately aligned.

- The role of the client includes assessment of the acceptability of the offer and facilitating of the vendor. Basic aspects for this are concerned with listening, observing, asking questions, delivering and demanding information, and pointing out the blanks in the elaboration of the bid and the pre-planning of the project.
- The role of the vendor includes being in the lead, being pro-active, unburdening the client, and answering questions of the client. Basic aspects related to this are for the vendor to initiate, coordinate, and analyze for the client.

- Align the expectations of the roles at the start of the clarification phase and demand commitment to these interpretations (one of the first meetings).

Tendency to revert to manage, direct, and control attitudes.

- Do not accept a reversion to the classical manage, direct, and control from any of the involved persons or parties. Retain the envisioned roles during the clarification phase.
- Only manage by exception: this means active management of the vendor when the vendor does not meet the agreements concerning the roles or when the client's interests are possibly harmed (client).
- Indicate when the client reverts to a manage, direct, and control attitude (vendor).

The vendor is often not in the lead during the entire length of the clarification phase.

- Ensure that the role of being in the lead is fully understood and aligned with the client (vendor).
- As vendor, indicate when the client reverts to manage, direct, and control (protect the lead) (vendor). Manage only by exception when the vendor does not meet the agreed roles and corresponding lead position (client).

Products

The scope and level of detail of the products of the clarification phase are not clear.

- Have a clear vision of what is necessary to award the project before the clarification phase commences (client).
- The vendor should have a clear vision on what products are going to be produced and what the scope and level of detail is.
- Expectations regarding the scope and level of detail of the products should be managed and aligned at the start of the clarification phase (from the lead perspective of the vendor).

Process

A basis of trust is lacking or there is even a basis for distrust which results in demanding more details.

- Use past performance information (when available) of successfully delivered earlier projects to develop a verified trust base (vendor).
- Process capacities of the IPM roles of the project teams are important for a successful clarification phase.
- Plan moments where the focus is not entirely on the products (e.g. at the start of the phase in order to enable the teams to get to know each other).
- Be open and pursue transparency to development trust and establish personal power (e.g. share complete information and pinpoint concerns and observed risks).

Based on the results of this study and the validation that confirm the findings it can be concluded that the model of recommendation and its underlying problems are valid and representative. Results of the surveys emphasize that it is likely that the model of recommendations enhances the effectiveness and the efficiency of the clarification phase. As a result it is concluded that the model of recommendations can contribute to an enhancement of the performance of the clarification phase in future Best Value projects.

8.3 DISCUSSION

Various aspects of this study will be discussed below to critically reflect on them, to discuss them from the perspective of quality, and how these could be enhanced when for example they would be encountered differently or when more time would be available.

Each study has constraints in terms of time. For this study that meant a selection of four cases to analyze the clarification phase in-depth. While methodologically this number of cases is sufficient it might be expected that case specific observations might be higher when more cases are methodologically analyzed as in this study. While the result of the validation suggest that the findings presented in this case are representative and accurate it could be possible that in the overview of problems or in the model of recommendations certain specific aspects that occurred in a non-case are missing.

The findings of this study are limited to the application of the clarification phase of the Best Value approach at Rijkswaterstaat. This means that other organizations where Best Value is applied as well, such as ProRail, might reap different results with the contemporary application of the clarification phase. This could mean that the findings of this study are limited to the context of Rijkswaterstaat. When more time would be available the study could be extended to other, similar organizations as well. While this is considered to be an important limitation it is also considered to be an important lead for further research as will be pointed out in the next section.

The model of recommendations has been validated but not applied to help improve future projects. The true test will be when recommendations are taken into account and it can be checked whether they contribute to the intrinsic performance of that clarification phase. While a selection of recommendations has been validated this is not a guarantee that application of the recommendations results in a better process or products during the clarification phase.

The theoretical framework utilized for the analysis of cases and the enhancement of the understanding of the process of the clarification phase in both Best Value theory and the application was compiled out of the agency and the stewardship theory. The theoretical framework is considered to be adequate since the selection is based on both theoretical insights and the initial reconnaissance through analysis of evaluations but use of other theories could also enhance the insight from other aspects. Other theories could have been used to analyze for example the nature and role of transaction costs during the clarification phase or certain bodies of management literature could have been operationalized more extensively to understand to relational process that occurs (e.g. development and role of (verified) trust). At this moment I believe the theories used serve the nature of this study but also acknowledge that other theories could be operationalized to do additional analysis. Restrictions in time and the nature of the context of the study naturally play a role in the current selection and perhaps limitation of theories.

The interviews were held in a relative compact period of two weeks. Reflecting on this period I would take more time to perform the interviews since this period was experienced as very intensive and a source of perhaps unnecessary pressure to perform this part of the methodology in such a brief period of time. Then again, this compact organization has contributed to the performance in terms of time due to the possibility to collect a significant amount of data in a relative small time frame.

Role of trust has been appointed quite extensively in this study. It has been observed that trust in its more traditional nature is not a part of the Best Value approach. The concept of verified trust has been introduced to appoint trust which is based on past performance information. Nevertheless it was apparent that traditional trust plays a role as well. Recommendations have been made to include for example past performance information in products of the clarification phase as well to provide the client with dominant information regarding past performances of the process they will acquire. The recommendations could contribute considerably to reducing the significance of traditional forms of trust but as has been shown in various interviews as well it remains the work of people in which personal relations tend to play a role as well.

As pointed out earlier in this discussion the structure of the validation is a possibility for further research. From a perspective of efficiency and to enable a more compact survey in which participants would not have to invest too much time a selection of main problems and corresponding recommendations has been used. When a total validation would be performed, the accuracy of the findings could be higher because a critical global check would be used. Considering the nature of this study this was not feasible or realistic considering the dependence on a group of potential participants which have a limited amount of time for this kind of surveys.

8.4 FURTHER RESEARCH

For the problems observed in this study regarding the clarification phase recommendations are presented. However, further research might be needed to understand the full implications of, for example, the recommendations made in this study. Besides the leads for further research that are directly related to this study other possible leads were observed as well. The main leads for further research are presented below per main topic in the form of some questions that emerged during the study and during the reflection on the study.

The recommendations made in this study could be applied by Rijkswaterstaat. It could be interesting to evaluate if they are truly effective when operationalized. Relevant questions related to this: What effect do the recommendations based on past performance of projects have in new Best Value project? What adaptations to the model of recommendations are necessary to further refine and enhance its impact on the quality of the phase? Does verification by application result in different effects than expected based on the validation based in this study?

More and more projects are finished, which could be interesting for analyzing the final quality/costs and possible implications for adaptations of the clarification phase. Questions that could be posted in such studies could be: What is the result of the process bought at the end of the clarification phase in terms of their relation to project goals and initial propositions made in terms of quality and costs? How is the proposed quality in the tender realized during the last phase of the Best Value approach?

The role of trust could be elaborated much deeper and comparisons could be made to other procurement strategies which are based on more traditional settings. Questions that could be central are: What is the role of trust in Best Value projects? Are there significant differences between Best Value projects and more traditional project when considering the role of trust?

An aspect that was presented during a Best Value congress by Sicco Santema related to the notion that the vendors still operate in the traditional procurement setting; they start the tender when it is published by the client. He suggested the vendors should already be working on the proposition before the client published the project request. Relevant questions could be: What role could Rijkswaterstaat/clients play in early development of the propositions of vendors? Is it possible in the markets Rijkswaterstaat operates in to work with these kinds of early propositions? What do vendors need to start with their proposition before the selection phase commences?

What was observed during the interviews was that the vendors tend to produce unique or almost unique products every single project. Products are here considered from the perspective of the clarification phase: Project Management Plan, Risk Management Plan etc. This is a notable observation since it raises the following questions: Is it possible for vendors to work more efficiently by standardizing their processes and products that are (also) requested during the clarification phase of the Best Value approach? What kind of standardization of products is possible? What kind of adaptation should be made to the standardized methods of a client like Rijkswaterstaat to enable standardization of these products?

These questions can offer new research potential. The offered research potential is considered to be relevant for the field of Civil Engineering and Management, but the posted questions might be challenges for other disciplines as well (e.g. organizational or business oriented studies). It is clear that other disciplines can contribute to solutions to improve the implementation of the clarification phase or other aspects of the Best Value approach.



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APPENDICES

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A. GLOSSARY
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A. GLOSSARY

Alignment: An arrangement in which all elements and resources are positioned to be utilized in the most optimal way. An expert aligner is a true leader (Kashiwagi, 2013:b p.554).

Best Value: A high competition, high performance environment in which users consider both performance and price. It is Best Value when the buyer selects a vendor or item for "the Best Value for the lowest price." The Best Value is when the vendor delivers a high performance service for the lowest price and gets paid for the service as soon as possible. All other transactions are considered non-value added transactions or costs and are minimized. Other requirements of Best Value include transparency, win-win, minimal approvals, expert determines scope and controls the project (user releases control of the project) and communications are minimized (Kashiwagi, 2013:b p.554).

Case study: a case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2009, p.18).

Clarification phase: the second phase of Performance Information Procurement Systems (PIPS) process. The vendor will use this phase to clarify their proposal and develop a final proposal to the client (Kashiwagi, 2013:b p.556).

Control (BV): Introduced in IMT as the inaccurate idea that individuals can take away another person's free will by forcing them think, feel or act in a certain way. (Kashiwagi, 2013:b p.556).

Control (control-oriented management): Comparing actual performance with planned performance, analyzing variances, assessing trends to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed (Project Management Institute, 2013 p.559).

Directors Report: Is an overall statistical aggregate of all consolidated projects with Weekly Risk Reports (WRR) in an organization. The DR prioritizes the company's entire project database (Projects with WRR's) by risk. It keeps track of all deviations in cost (budget), time (schedule), future risk and any other unique measurements (Kashiwagi, 2013:b p.554).

Dominance check: period of time given to the evaluation team to verify vendor submitted ratings are dominant and that the potential Best Value vendor's submitted cost is either within client budget stipulations or has a justifiable reasoning for being outside of the cost parameters. (Kashiwagi, 2013:b p.554).

Dominant performance information: information that is non-disputable; verifiable; accurate: measurements in terms of numbers, percentages, or time; high performance; and shows a high probability of performance in the claim in the future (Kashiwagi, 2013:b).

Effectiveness: effectiveness is defined as the capability to produce the desired result; this means that it results in the intended outcome.

Efficiency: focuses on describing to which extend time, efforts or costs is used well for the intended task of for the envisioned purpose.

Expert: a person who is proficient and specialized in a certain skill, practice or service. Based on their knowledge and experience they are able to predict future outcomes with high accuracy. Experts do not have technical risks and the risks they have are risks they do not control. Based on IMT Kashiwagi concludes that the expert always think in the best interest of the buyer and identifies and mitigates risks beyond their own control (Kashiwagi, 2013:b p.555).

Interviews: most important filter to identifying a vendor's capability. Identifying if vendor's personnel have a vision of the project/service and can minimize risk they do not control. Experts have Type A characteristics. (Kashiwagi, 2013:b p.555).

Management by Risk Minimization Phase: the third phase of the Performance Information Procurement Systems (PIPS) process. This phase takes place after the signing of the contract. The awarded Vendor is expected to maintain a Risk Management Plan (RMP) and a Weekly Risk Report (WRR) throughout the life of the contract (Kashiwagi, 2013:b p.556).

Mobilization period: the period that in general the vendor needs to mobilize their IPM team and the supporting personal after being selector to enter the clarification phase.

Past performance information: metrics which show a vendor or individual's past performance. It is a specific submittal requirement in BV PIPS RFPs. PPI can also be used to describe a vendor's performance and competitive advantage. PPI can also be used to communicate to a buyer's selection committee in a Best Value process (Kashiwagi, 2013:b p.556).

Prioritization of vendors: Using a linear matrix to take the weighted ratings from the selection committee to identify the Best Value vendor. (Kashiwagi, 2013:b p.557).

Project capability: this filter includes five mandatory submittals. The submittals are the Project Capability (PC), Risk Assessment (RA), Value Added (VA), Cost, and Schedule. Schedule is not a selection criteria, but requested during the selection phase (Kashiwagi, 2013:b p.557).

Quality Assurance (QA): The plan a client uses to ensure that the vendor has an effective quality control plan, risk management plan and weekly risk report (Kashiwagi, 2013:b p.557).

Quality Control (QC): The plan the vendor uses to ensure they are doing their work correctly (Kashiwagi, 2013:b p.557).

Risk: An unforeseen event or situation which the vendor does not control. All risk is the financial responsibility of the vendor (Kashiwagi, 2013:b p.558).

Risk Management Plan: A living document created by the vendor during the clarification phase, which outlines potential risks for the project and their plans for mitigating the risks through transparency. The RMP is used throughout the life of the project in the third phase as a living document, in which the RMP can be updated with new potential risks and risk mitigation plans (Kashiwagi, 2013:b p.558).

Selection Phase: first phase of the Performance Information Procurement Systems (PIPS) process. It focuses on filtering through all potential vendor/contractors in order to find the Best Value vendor for the project (Kashiwagi, 2013:b p.558).

SMART: Specific (relate to a specific aspect), Measurable (quantify or suggest an indicator of progress or the results), Assignable (who is responsible to perform the task), Realistic (statement of realistic goals or achievements), Time-related (when is it realized).

Validity: qualitative researchers use validity to demonstrate that the findings are accurate and it adds to convincing readers of the accuracy of the findings (Creswell, 2009).

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PROJECT 1

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PROJECT 2

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PROJECT 3

Non-disclosed references.

PROJECT 4

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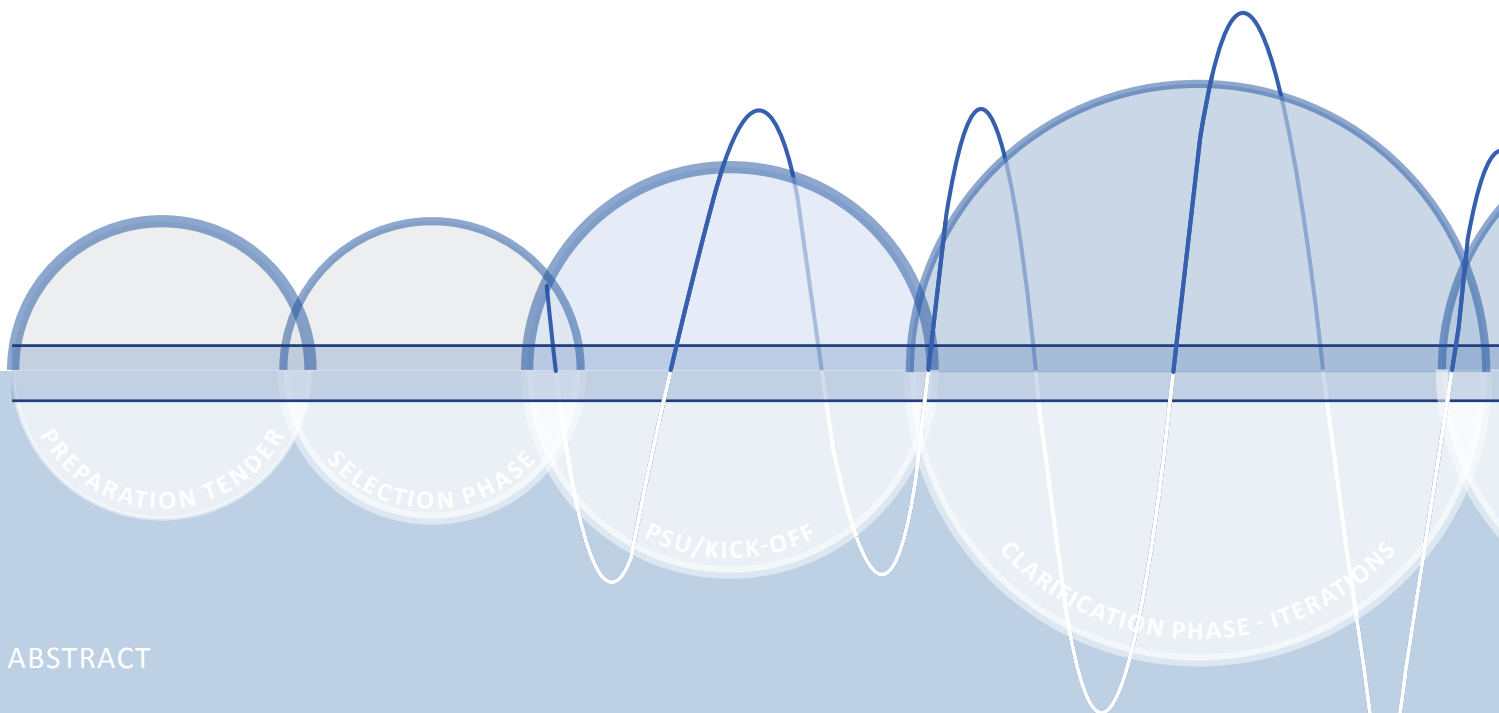


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NON-DISCLOSED ATTACHMENTS



ABSTRACT

The objective of this study is to provide an analysis of the underlying problems that cause the significant planning overruns of the clarification phase of the Best Value approach at Rijkswaterstaat. A theoretical framework has been developed in which the agency and stewardship theory play a central role in facilitating an analysis of both theoretical notions of Best Value and the implementation of the clarification phase. Through a multiple case study, four cases are analyzed to develop an intrinsic understanding of the problems at hand. Recommendations are coupled with the observed problems, which are then organized in a model of recommendations. In this model the recommendations are linked to multiple or specific elements of the Best Value approach to realize a clear and organized overview. A selection of main problems and corresponding recommendations is validated with participants that have experience with the clarification phase through a survey, which resulted in confirmation of the findings of the study. By the end of this study, it is concluded that, based on the results of the survey, the recommendations can be expected to contribute to the enhancement of the effectiveness and efficiency of the clarification phase of the Best Value approach and thus increase its performance in future Best Value projects.

Key words: Best Value approach, Best Value procurement, Best Value, clarification phase, pre-award phase, procurement, agency theory, stewardship theory, model of recommendations, recommendations.