



BEST VALUE PROCUREMENT

**EXPLORING ITS IMPLEMENTATION FOR
DELIVERING BENEFICIAL PROJECT OUTPUTS
ACROSS THE MARKET INDUSTRY**

MASTER THESIS
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Best Value Procurement

Exploring its implementation for delivering beneficial project outputs
across the market industry

by

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Executive Summary

The market industry is rapidly changing and modifications are taking place. Over the years, it has been noticed that project success is a challenging issue, which requires several endeavours from project parties. The procurement system is characterized as a tool, the implementation of which delivers project results. The procurement system is classified into four distinct categories; traditional, design & build, strategic & integrated, partnering. Based on those, the most popular procurement technique historically is the traditional method. The traditional method is mostly applied successfully in small projects, when less complexity and uncertainty emerge. However, the complexity and uncertainty have largely increased, marking the traditional method slightly impractical for successful results. In that case, a new procurement method is introduced, the Best Value Procurement (known as BVP) method. A critical advantage of the BVP is the embodiment of complexity and collaboration demands into its process. Despite its advantages and ambitions, the BVP does not always secure a successful result. Therefore, the main question that will be addressed in this research is:

“How could public organizations implement Best Value Procurement (BVP) to benefit the project delivery?”

To answer the main research question, a deep investigation through the BVP concept (elements, activities etc.) was executed. Firstly, an extensive literature review was exercised in order to cover the BVP method on the theoretical side. Based on the literature results, a theoretical BVP framework was established. Secondly, the findings acquired from the literature review were examined, leading to the exploratory interviews. Interviews are exploring the practical side of the BVP and how is applied in practice. Seven interviewees were selected. An understanding of differences and similarities between theory and practice was essential. Using the findings from the frameworks' comparison, a list of adjustments (or recommendations) for improving the BVP method is established. Interviews with experts were held. Three experts, coming from public organisations and consultancy firms apply their knowledge and expertise in order to improve the BVP method. Thereafter, an alternative BVP framework was established. The alternative BVP framework incorporates components (elements, activities, including parties, final deliverables), the influence of which is characterized as critical for the BVP success.

Public organisations frequently apply the BVP method in their projects. Being BVP initiators in the market industry, public organisations should implement BVP carefully. The alternative BVP framework, proposed in the research, could be used by public clients in order to achieve successful project outcomes. For a successful implementation of the BVP method, special attention should be attributed to the main alterations:

General highlights:

1. An introduction of Stage zero; training sessions, about BVP philosophy, are becoming available through every single project participant
2. An introduction of final deliverables (per step); setting clearly the deliverables to be received at the end of every stage

Selection stage:

1. Interviews inclusion as part of the evaluation process, not separate activity of the selection stage
2. Consultants and tender managers are getting an important role throughout the selection stage

3. Once the selection stage finishes, the evaluation committee or client has to select only one contractor. Multiple contractors should not be accepted

Clarification stage:

1. The contractual agreement, between client & contractor, should be placed as a final deliverable of the stage, and not an initial purpose itself
2. Changes in maximum price and specifications should be avoided (over the process)

Execution stage:

1. An emphasis should be given to the submission of two important documents; the official report and the weekly report
2. The execution stage demands collaboration between client and contractor. Once a problem or difficulty emerges, both of them should act immediately.

Taking into account the above-mentioned points of attention, certain recommendations can be provided both for the future research and practice. Professionals can already start applying the alternative framework, since the modifications could have a critical impact, but do not drive to a totally new method. Increased training sessions via the Stage zero is an important point that can enhance the success of the method. What is more, the incorporation of interviews into the evaluation process will assist in the creation of a clear picture between the tenders. Future research could be focused on collecting more information from contractors' side. Contractors' contribution to project success is undeniable, therefore it is advisable to investigate the contractors' opinion related to the BVP concept.

Keywords: public clients, procurement system, best value procurement, project success

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Abbreviations

BVP	Best Value Procurement
PS	Procurement System
USA	United States of America
SQ	Sub Question
DBB	Design-Bid-Build
RFP	Request For Procurement
IT	Information Technology
TU	Technische Universiteit

1. Introduction

Project success is considered an ultimate goal, the sufficient implementation of which is based upon the project's characteristics and elements. All projects would be undertaken successfully by accomplishing their milestones within a certain time, conforming to the quality (or) standards and satisfying the cost impact of the end user (Heagney, 2016). However, budget overruns, time exceedance and low performance are often observed (Javed & Pan, 2018). Several researchers have tried to deal with the reasons behind poor project performance. First, a study carried out by Standish Group (2016) reported that globally more than 70% of projects failed to be completed on time, on budget and with a satisfactory result (Kashiwagi, 2018). Second, regarding the increased tendency towards large infrastructure projects, for instance the need to host significant sports events (e.g. Olympic games or football competitions), it has been noticed that cost & time overrun become a consistent challenge that the construction industry tries to cope with (Andersen et al, 2016).

1.1 Procurement concept

Even though a large empirical evidence has proved that project failure is becoming an ongoing issue, several project directors and practitioners follow the same path by repeatedly falling into the same pitfalls (Schoenhardt et al., 2014). Simultaneously, multiple conflicts and disputes among parties, particularly between client – contractor, are growing rapidly due to the lack of understanding and information asymmetry (Lesjø et al., July 2019) (van Duren et al., 2015). That leads to poor performance (Mahamid, 2013). Therefore, in that case, it is necessary to define beforehand which tasks, authorities and liabilities are allocated among the parties so as to avoid confusion which eventually ends up in a better partnership (Memon et al., 2014). Procurement system is considered a tool where sufficient distribution of roles, tasks, authorities is implemented. More specifically, procurement system (PS) describes how an organisational system assigns specific responsibilities, authorities and risks among people and organisations involved in the construction process (Naoum & Egbu, 2015). During the last decade, a piece of evidence presents a high popularity and frequency of the traditional low-bid method in the construction industry (Arain et al., 2014). Taking into account its simplicity and less effort in evaluating the expertise of the contractor and performance, the traditional procurement looks handy in application and documentation as well (Hasnain & Thaheem, 2016). However, there is a strong body of evidence which demonstrates that large infrastructure projects, procured by the traditional method, are characterised by significant time delays (Dada, 2012). At this point, the necessity for a new procurement method is urgent.

1.2 Best Value Procurement

Best Value Procurement (known as BVP) is an alternative PS, focusing on delivering best results by taking into account the construction complexity and collaboration necessity (Bruno et al., 2018). Additionally, BVP is considered a method of balancing out the weakness or susceptible points emerging from the traditional low-bid method (Nguyen et al., 2018). A major advantage of the BVP method is the contractor's selection mainly based on their performance instead of price (in the awarded criteria) (van Duren et al., 2015). That does not exclude the price as a significant factor in the evaluation process, but indicates the embodiment of additional non-price factors as well (Tran et al., 2017). Considering the Netherlands, BVP was introduced in 2004 by the founder Dean Kashiwagi and George Ang. The first time when BVP was applied (in the Netherlands) was in 2005 and many projects later started adopting the BVP philosophy (van de Rijt & Santema, 2012). According to the elements incorporated in the BVP process, the method is promising in providing successful project results.

Nevertheless, it has been noticed that BVP does not always secure successful results and several drawbacks have emerged during its implementation over the years. This is the reason why an additional investigation of the method should be held.

1.3 Problem Statement & Research Gap

Best Value Procurement has already been applied in the Dutch construction industry for almost 18 years, however the problem of project success remains. Public clients, often involved in the BVP method, have faced issues regarding the implementation of the BVP. For example, in case of the Friesland province project (carried out by Veiligheidsregio), it was revealed that a fundamental concern of determining a realistic ceiling budget by the client was needed. That issue introduced a barrier for the contractor to submit a reasonable bid based on an open budget condition (Wondimu et al., 2020). That statement of determining a price offer is considered important in the BVP method due to the fact that if the proposed offer is higher than the budget framework, the contractor is ultimately disqualified from the competition (Lesjø et al., July 2019). Therefore, the main research question is: *How could public organisations use the BVP method in order to benefit the project delivery?*

The research gap is located to the fact that even though the BVP is presented as a promising method, the result of the project is not always the desirable one. Therefore, the BVP method should be further analysed and every single problematic aspect influencing the final outcome should be examined.

1.4 Research Scope

The scope of the research is focused on the implementation of the BVP across market industry and what measures are needed to provide a successful project delivery (under BVP concept). Due to the limited investigation of the BVP in relation to project delivery in literature, a thoroughly research is required.

Since the Netherlands is the country, where the method is mostly applied (after the USA), a further investigation is needed (Wondimu et al, 2020). Additionally, the accessibility of getting information, within the Dutch market, has played an important role. Multiple viewpoints and beliefs (coming from different fields) will be collected and analysed in this research. More specifically, public clients (Rijkswaterstaat, housing corporations) and consultancy firms are chosen in order to get valuable information towards BVP implementation.

1.5 Research Questions

To address the research gap, it is necessary to answer the main research question and the sub-questions respectively. The following main research question is introduced:

How could public organizations implement Best Value Procurement (BVP) to benefit the project delivery?

To answer that question four sub-questions are addressed:

(SQ1): *What can BVP offer in theoretical perspective to the public clients?*

{a review of the existing literature provides the necessary information about the BVP concept. Then, a BVP theoretical framework is established}

(SQ2): *How is BVP implemented in practice?*

{conducting interviews gives a better understanding of how BVP is actually applied in practice. The interviewees become a source of knowledge, which contribution brings a practical framework of BVP}

(SQ3): *What is the difference between the theoretical – practical side of BVP?*

{a comparison of theory and practice explains the difference between two perspectives}

(SQ4): *What measures are needed to improve the implementation of BVP?*

{the results from the comparison of theory and practice are used for establishing adjusted BVP recommendations. BVP experts, analyse and interpret them, providing useful advice on the method's proper implementation}

1.6 Structure of the report

The chapters below outline the way under which the research questions would be answered.

Chapter 2 describes the overarching structure of the research project (providing details on how the report is organised). Additionally, a research framework visualizes all the steps which are followed during the research.

Chapter 3 includes information regarding the theoretical side of the Best Value Procurement (BVP). The data collection is based on the existing literature (papers, articles, books). Subsequently, a BVP theoretical framework was established, answering the first sub-question (SQ1).

Chapter 4 determines the practical side of the BVP. Interviews are selected as the data gathering method (emphasising on how BVP is applied on practice). Subsequently, a BVP practical framework was introduced, resulting in the answer of the second sub-question (SQ2).

Chapter 5 designates the comparison of the two BVP perspectives (theory and practice). A comprehensive analysis of the results, provides an answer to the third sub-question (SQ3).

Chapter 6 refers to the BVP experts and their contribution throughout the research. The findings coming from the comparison of theory and practice, provide adjusted recommendations for the BVP method, which answers the fourth sub-question (SQ4).

Chapter 7 refers to the discussion. According to that, it explains and interprets the meaning of the results in relation to the research questions. Additionally, limitations and scientific contributions of the research are presented.

Chapter 8 is focused on the conclusions and recommendations. Conclusions present analytically all the research questions whereas recommendations explore the research implementation, both in practice and future.

Chapter 9 states the reflection of the research, presenting the most interesting parts of the entire study.

2. Research Design

The research design chapter outlines the layout of the research by indicating the steps which are following to address the research questions. More specifically, in Section 2.1 the research framework is presented, illustrating the traceability of the steps (throughout the research). Moreover, the Section 2.2 covers the literature review, pinpointing the sources of the BVP theoretical side. Finally, in Section 2.3, the empirical data collection is presented (using exploratory interviews) and the experts' interviews are introduced.

2.1 Research framework

The research framework provides a structure and governance around the research activities (what approach or method is used to reach your final objective). The figure 2.1 displays all the steps of this research:

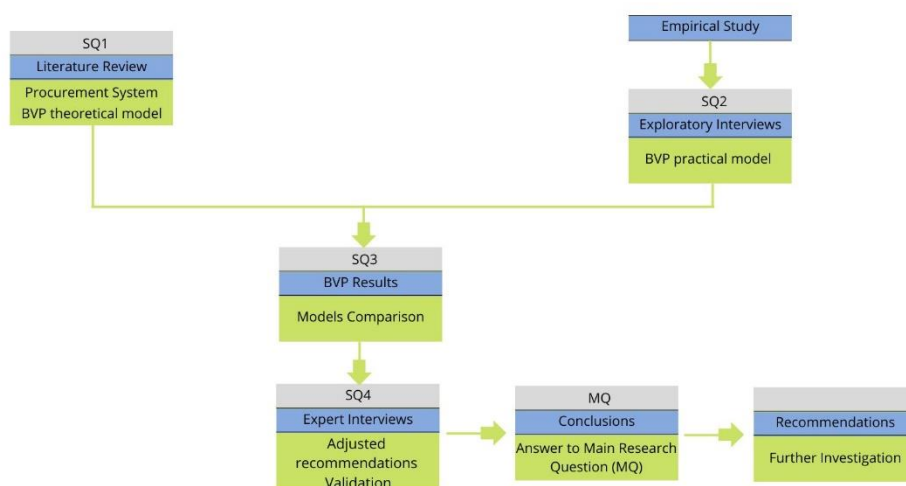


Figure 2.1 Research Framework

As seen in figure 2.1, the literature review is conducted in order to explore the procurement system (e.g. definition, categories, importance) by giving more emphasis on the Best Value Procurement. Using multiple sources of information (e.g. papers, articles, books) from the international bibliography, a sufficient understanding of the BVP is accomplished. Thereafter, a framework derived from the BVP phases, due to their high significance, is presented referring to BVP activities, elements and downsides. Therefore, that covers the first sub-question: *What can BVP offer in theoretical perspective to the public clients?*

To identify the perspectives on how BVP is applied in practice, interviews are carried out. More specifically, in order to collect data about a specific context, using viewpoints or beliefs instead of statistics, qualitative research is required (Njie & Asimiran, 2014). Interviews are one of the qualitative methods to gather data from a wide spectrum of participants (Mils & Birks, 2014). At that point, several interviewees were interviewed in order to share their beliefs and experiences on how BVP principles (or activities, elements) are actually implemented in projects. Therefore, a practical BVP model is created (based on the BVP steps). In this way, the second sub-question is answered: *How BVP is implemented in practice?*

Next, since the objective is to find out how the implementation of the BVP could benefit the project delivery, a sufficient comparison between the theoretical and practical frameworks is needed. In that case, similarities and differences between these perspectives could be extracted and ultimately provide a better understanding of the BVP concept. Thus, an answer to the third-sub question is given: *What is the difference between the theoretical – practical side of BVP?*

Subsequently, once a comparison between theory & practice has been accomplished, recommendations for improving the BVP concept were provided (combining elements from both theory & practice). However, the BVP adjustments lack credibility and a validation point from BVP experts is demanded. Therefore, the BVP experts could give useful advice on whether the proposed BVP recommendations could eventually be applied or not. This validation aims to answer the fourth sub-question: *What measures are needed to improve the implementation of BVP?*

Lastly, all the results and findings formulate an answer to the main research question (MQ): *How could public organizations implement Best Value Procurement (BVP) to benefit the project delivery?*

2.2. Literature review

Literature review is a source of information that covers the theoretical framework of each subject (Snyder, 2019). Being identified as the basis for all academic research, literature provides explicit data and information (for a certain subject) as a primary foundation of further research and investigation towards a certain topic (Juntunen & Lehenjar, 2021) (Levy & Ellis, 2006). Looking into the Procurement System (PS), particularly in Best Value Procurement (BVP), and its influence on the project's successfulness, it seems reasonable to establish a detailed observation in every available source of knowledge, for instance, published articles, papers, magazines or books (e-books or traditional form). "Google scholar" and certainly courses from the MSc Construction Management and Engineering (for instance, "Procurement of Complex Projects") are used for getting valuable knowledge. Since the report uses a qualitative approach, giving priority to in-depth knowledge of the context. The literature review has been beneficial in developing consistency and stability in the main research (Ismail et al., 2018). A certain amount of BVP examples are coming from the international bibliography, providing valuable information on how BVP is perceived in different market industries (finding common features around Dutch industry).

2.3 Empirical data

2.3.1 Interview protocol

An interview protocol describes precisely how an interview should be performed and what procedural activities should be followed (e.g. list of questions, the duration, the rules, the instructions, etc.) (Jakob & Furgerson, 2012). Firstly, the origin (type) and the number of interviewees is largely depending on the literature results and the respective scientific gap. Thereafter, once the group of interviewees has been chosen, they should present openly and honestly their beliefs and experiences about the main topic, filling the gap from the literature (Turner III & Hagstrom-Schmidt, 2022). Every interviewee has received a piece of document explaining carefully what the interview is aiming at as well as the key points of which they should be aware. This document can be found in Appendix A including everything that is needed regarding legal and educational rights.

2.3.2 Exploratory interviews

Interviewees from different working fields (knowing about the BVP concept and its principles) are gathered, sharing their viewpoints and experiences on how BVP is applied on-site aiming to develop the BVP practical model. A total number of seven interviewees have actually provided the necessary details around the practical implementation of the BVP, focusing especially on the BVP steps (including elements, activities, etc.). The participants are coming from public organisations and consultancy firms and have been selected under certain criteria and requirements. Interviewees were chosen mainly based on their familiarity with the BVP process (regarding the BVP steps, including the elements, activities and weakness points). Additionally, the list of questions (asked during the interviews) has a broad spectrum of disciplines and backgrounds, focusing on both standards and more specialized throughout the topic. The idea of hierarchical questions develops a slow but incremental build of trust and confidence between the interviewee – interviewer (Jakob & Furgerson, 2012). A comfortable environment brings better cooperation and data extraction. The interview transcripts are presented in Appendix B. Every interview lasted 60 minutes.

2.3.3 Experts interviews

Based on the results (from exploratory interviews & literature review), adjusted BVP recommendations were developed. Since these recommendations lack credibility, a number of BVP experts were selected. Three experts with remarkable experience and knowledge of the BVP method were chosen, from public organisations and consultancy firms. Experts' viewpoints and contribution evaluate the adjusted recommendations, resulting in a new alternative BVP framework.

3. Literature study

In this chapter, an analysis of the procurement system (PS) and particularly the Best Value Procurement (BVP) is performed. First, in Section 3.1 the procurement method is described (in terms of definition and categories' clarification). Next, in Section 3.2 the Best Value Procurement (BVP) is introduced (looking at its theoretical side). The description of the BVP is focused on the BVP steps, elements and activities, resulting in a theoretical framework. Finally, in Section 3.3 an answer to the first sub-question (SQ1) is given.

3.1 Procurement System

In the following section, the meaning of the procurement system and what categories are currently available in the market industry are presented. Every procurement category is explored by emphasizing the process which is followed to reach project's success. In this regard, a comprehensive analysis of the procurement gives an additional reason why the procurement system can be determined as a pivotal stage for getting a successful result.

3.1.1 Definition

Since the procurement system has dramatically changed over the years, due to several adjustments and technological developments, apparently the procurement itself has been modified a lot as well (Grandia & Meehan, 2017). The typical term of procurement, comes from Barraket & Weissman (2009). According to them, procurement relates to *the obtaining of a variety of goods and services by governments from private and non-profit firms, with the goal of providing social value*. In other words, the procurement system tries to distribute equally to organisational members several factors, such as roles, tasks, responsibilities, authorities depending on their capabilities, knowledge and skills as well (Naoum & Egbu, 2015).

3.1.2 Procurement categories

The procurement system stands for distinct and fair allocation of roles, tasks, authorities and risks toward project actors and participants (Memon et al., 2014). That helps to avoid conflicts and disputes by indicating precisely where the area of responsibility for each party is. This results in the application of a method or policy without the fear of intervention or accusation by others (Masterman, 2013). Right now, there is a remarkable number of procurement categories with their differentiation depending on multiple variances and parameters, especially formed by clients' expectations (Hashim et al., 2006). Due to their large availability, flexibility and necessity within the construction industry, the procurement categories should be defined clearly and accurately (Love et al., 2012). Therefore, according to (Rahmani et al., 2017) the procurement system is classified into four well-known categories:

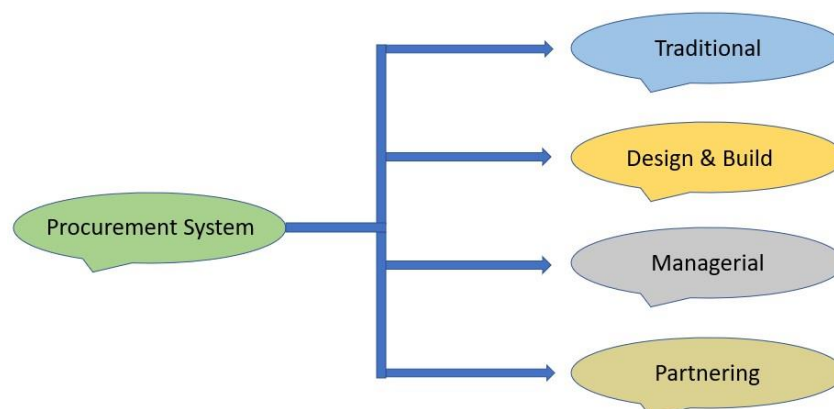


Figure 3.1 Procurement Categories

Traditional method

Despite the huge criticism, the traditional method (also known as the separated method) remains the most popular procurement technique toward clients' viewpoint (Arain et al., 2014). Its implementation usually comes from inexperienced or (and) random clients whose responsibility however, has a significant influence on the project's continuity and success as well (Morledge et al., 2021). In that concept, the client appoints a consultancy firm to prepare and draw up every design for the infrastructure (Bruggeman et al., 2010). Architectural background knowledge seems an incredible input for developing a high-quality design with state-of-the-art details and notes. That is the reason of choosing a multifaceted consultancy team (architects, designers, etc.) to come up with exceptional designs (Bruggeman et al., 2010). Additionally, using the traditional model, a client has the inclination to select the qualified contractor based entirely on the lowest price (Hasnain & Thaheem, 2016). No matter what the magnitude or complexity (and of course the time schedule) of the project is, a contractor has clearly understood that a tender price might be as low as possible in order to increase the probability of getting the contract (Qi et al., 2020). However, a low-cost bidder selection severely influences project quality. This usually occurs due to the cheapest and less-effective usage of materials within projects, deteriorating the functionality of the project over the years (Oad et al., 2021). Lastly, an early contractor involvement (in the design stage) is rejected due to the upcoming changes and shortcomings which the final design should inevitably have (Rahmani et al., 2017).

Design & Build method

The Design & Build model introduces a different way of procuring by giving more responsibilities and duties (substantially created by a huge number of tasks) to one party, who acts as a sole point (Seng & Yusof, 2006). That party (called contractor) has everything under their own liability (mainly design and construction stage). By using their expertise and -most importantly- experience, the contractor tries to deliver a successful and satisfying outcome for the client (Lam et al., 2004). At one point, the integration of the works provides better coordination and coherence of stages from the contractor, avoiding any source of interventions from third parties, such as clients. Since potential changes usually during the construction are prone to be resource-consuming, it seems logical to appoint one party responsible for both design and construction, knowing exactly where any change has its roots (Smith et al., 2021). Moreover, the contractor might establish an agreement between multiple consortia (each liable for different works, such as design or construction, etc.) in order to have a broad network of experienced personnel (Grobler, 2012). For example, a single contractor has an opportunity to divide the plethora of tasks and responsibilities among their partners. That gives a sense of flexibility to the main contractor for operating their tasks freely without any concern, whether all tasks have been distributed correctly to everyone or not (Rahmani et al., 2017).

Managerial method

Using that procurement model, the client establishes a contractual relationship with a manager who is expected to have a managerial role in every single stage (either design or construction) (Rahmani et al., 2017). Working on behalf of a client, the Construction Manager (CM) has a clear mission of applying strategic methods and coordinating efficiently all stages in one integrated package (Morledge et al., 2021). A proactive strategic procurement provides a specific advantage for organisations to reduce a huge amount of resources (time, money, personnel, etc.) and allocate them reasonably among the project actors (Baily et al., 2022). Having implemented the manager's expertise and knowledge in early phases, the entire functional process would be benefited to a high extent (Song et al., 2009). By using the term value engineering, the contractor (or manager) promotes a more systematic approach of dealing with frequent issues (for example conflicts, misalignment) and reliability enhancement (by achieving required functions and regulations) with limited cost expenses (Rahmani et al., 2017). It

seems reasonable for a client to get contractor's (manager's) expertise as early as possible and apply an integrated management approach. This could absolutely offer a better view of how the entire process could be coordinated efficiently (Baily et al., 2022). However, the poor confidence in accurately prescribing the price (in the initial phases), minimizes the reliability of method's predictions (Lloyd-Walker & Walker, 2015).

Partnering method

Partnering (or collaborative) procurement method primarily comes from the spirit of working as a team (Rahmani et al., 2017). Project success is conceptualized with multiple involved stakeholders acting in the same direction, putting their own ambitions and expectations under a common goal (Masurier et al., 2006). Traditionally, it has been noticed that project failure usually originated by positioning someone's own beliefs and necessities above others. Apparently, all parties have a goal of achieving their future individual targets, however it is an uppermost necessity to collaborate altogether for ensuring project's well-being and prosperity (Akintoye & Main, 2012). To achieve that, a certain level of trust and freedom should be placed as a fundamental principle. Given the fact that complexity and uncertainty have increased (especially in large projects), it becomes clear that an effective partnership is required more than ever before (Naoum & Egbu, 2015). Therefore, the distribution of tasks, roles and risks is conducted by all members and together they figure out whose knowledge, background and expertise are more suitable for each task (Nugroho et al., 2020). The expertise criterion is placed higher than the eagerness criterion because "pain/gain share" arrangement influences everyone within a project (Gransberg & Shane, 2015). The "pain/gain" term explains how risks, profits and failures would be fairly allocated among participants. If two parties are involved, the "pain/gain" is shared by 50% (to each party) (Mills et al., 2016). Even though openness, trust and good faith indicate the "partnering" vitality, it is essential for organisations to re-design their business models accordingly, since adherence to old-fashioned methods still happens (Rahmani et al., 2017).

3.1.3 Conclusions

Considering the four procurement categories, the traditional procurement method (known as DBB or low-bid method) has been recognized historically as the most popular procurement method (Dada, 2012). The popularity of the method is derived from its simplicity and accuracy in serving successful results (particularly in small/middle-class projects) (Arain et al., 2014). However, the large demand for collaboration nowadays (since complexity is dramatically rising) reveals the incapability of the traditional method to deliver successful results (Dada, 2012). Apparently, the fragmentation of the project phases does not secure trust and mutual collaboration between parties since project phases are exercised by different parties (Storteboom et al., 2017). In that case, a new procurement system focusing on complexity and collaboration of parties is required.

3.2 Best Value Procurement

It is widely accepted that complexity has rapidly increased over the years, providing a challenging environment for procuring goods or services (Knight et al., 2015). Meanwhile, the absence of collaboration actually increases the project failure, since less trust and cooperation between parties is achieved (Ey & Han, 2014). Therefore, an alternative procurement method is required in order to include multiple factors (for instance, collaboration and complexity) for delivering successful results. That method is called Best Value Procurement (known as BVP). The major advantage of the BVP, which other procurement methods miss out, is the focus on market parties' performance rather than price. That actually instigates contractors to provide bids with the highest social value within a reasonable price (at least price that complies with the budget) (Bruno et al., 2018). A well-performed contractor

ensures security and reliability for reaching a successful result. Additionally, the necessity of BVP is marked by the client's lack of knowledge and technical expertise, in order to successfully guide the whole project (Van de Rijt et al., 2011).

3.2.1 BVP phases

The BVP is a procurement technique where the contractor is the expert and takes over the leadership of the project (Lesjø et al., July 2019). In order to apply their methods, the qualified contractor has to be selected by the client or an evaluation committee. Based on its theoretical framework, BVP includes four discrete steps providing explicit knowledge and information on how the method is actually implemented in multiple industries. As Dean Kashiwagi, the founder of BVP, introduced the BVP steps on his publication, emphasizing their significance. Several benefits towards project success have been recorded as well.

- ◁ The first two stages are used as filters in order to recognise which contractors' performance is relatively higher or lower among others (assisting in the best choice of the contractor)
- ◁ The last two stages test contractor's capability on executing their job on-site

Even though clients' role is limited towards the BVP process, having fewer duties and responsibilities in comparison with other procurement methods, their contribution is undeniable (Van de Rijt & Santema, 2009). The most important task for clients is to recognize & determine whose contractors expertise and skills match perfectly with the project specifications (Bruno et al., 2018). For that reason, it is quite important for every client to be aware of how the BVP steps are followed accurately.

PreQualification Phase

It has been considered as the starting point of the BVP process, even if its implementation is optional. At this stage, education and training sessions (mostly from consultancy firms) are taking place giving a robust understanding of how the method should be applied, to every project participant (Wondimu et al., 2020). Simultaneously, successful factors (collaboration and training sessions) are addressed and explained carefully to everyone in order to deliver a sufficient final result (Tran et al., 2017). Additionally, at this point several elements (coming from clients & contract managers) are presented, marking the necessity of that stage (looking more at risky/complex projects) (Wondimu et al., 2020). These elements are (Bruno et al., 2018):

- ◁ Specifications (emphasizing in project scope, objectives, goals and maximum ceiling)
- ◁ Information for tenderers (whether a limitation in participants is introduced)
- ◁ Quotation (details about product/service)
- ◁ Awarding criteria (factors influencing contractors' selection process)

Moreover, a filtering process indicates the number of contractors whose involvement seems important. Additionally, the filtering criteria are introduced by both clients and contract managers. The filtering criteria could be divided into the following categories (Lesjø et al., July 2019):

- ◁ "Soft" criteria (past performance indicators, human resources, equipment/machinery). These criteria identify whose contractors' abilities are desirable
- ◁ "Hard" criteria (financial, legal and administrative documents). These criteria present the contractors' profiles over the years

Selection Phase

Once the pre-qualification stage has finished, the next step is given on the evaluation of the bids based on certain awarded criteria, that have been described in the pre-qualification phase. An evaluation committee (consisting by technical members with engineering background) or clients carry out the evaluation process by taking into account both price and non-price factors (Tran et al., 2017). However, the diversity of several factors (price & non-price) indicates the necessity of transparency and fair judgement, in order to avoid discrimination between candidates (Ying et al., 2021). That is the reason why the evaluation committee should be established with members without a perceived or actual interest in a single candidate’s proposal (Tran et al., 2017). The awarded criteria can be sorted into two categories, primary and secondary. According to (Storteboom et al., 2017), the following table illustrates which criteria are embodied in each category:

Primary	Secondary
Past Performance & quality (forced by Dutch law)	Effective management of sub-contractors (internal management)
Record of Success (number of successful endeavours)	
Contractor’s experience with similar projects (in the past)	Corporate commitment on achieving customer’s satisfaction
Project completion (related to budget, time & quality)	

Table 3.1 Primary & Secondary criteria

Afterwards, interviews carried out by contract or project managers are performed in order to recognize even more whose contractor’s expertise fits the most, related to project aims & objectives understanding (Storteboom et al., 2017). The number of interviews is related to the project’s size and complexity. Lastly, since the entire evaluation process (primary/secondary criteria & interviews) has been completed, clients tend to “pre-award” the selected contractor (Bruno et al., 2018).

Clarification Phase

According to that stage, client requests from the qualified contractor to further elaborate and justify their plans (normally based on their risks management plan) (Bruno et al., 2018). Up to that point, the contractor takes over the entire leadership of the process and conducts a series of tests in order to prove and verify their assumptions. Tests are introduced when software is proposed in order to deliver the final objectives (running several rounds of tests, visualizing the upcoming results, etc.). In that case, contractor’s plans are examined in terms of operability and functionality over the years (Andersen et al., 2018). Meanwhile, contractor’s reliability is rapidly increasing when unforeseen future events are predicted (being aware in advance) (Lesjø et al., July 2019). Additionally, negotiations between clients & contractors are applied in order to discuss further which factors might have a significant impact on the final results (Bruno et al., 2018). These factors are:

- ◁ Distribution of roles & responsibilities between parties, particularly on the contractor’s side. A proper allocation is required in order to avoid misunderstandings
- ◁ Specifications and maximum ceiling budget. The negotiation focuses on whether those two factors (specifications & maximum ceiling budget) should remain the same or not. Usually, both of them remain untouched during the process (Van de Rijt & Santema, 2009).

Moreover, it is quite common for the contractor to figure out ways of reducing additional risks coming from the disqualified contractors (Bruno et al., 2018). In that case, client tries to put an extra load to

the qualified contractor, for instance by searching for optimal/beneficial solutions. When everything is settled down, the contract between client – contractor can be signed (Van de Rijt & Santema, 2009).

Execution Phase

The execution phase is the last stage of the BVP process. Since a contractual agreement between client & contractor is signed, the contractor is characterized as the key player of the project (Lesjø et al., July 2019). The importance of this stage is really high due to the likelihood of several risks and uncertainties happening on-site. In fact, during the execution process, the contractor needs to constantly provide answers to certain questions. These questions are (Bruno et al., 2018):

- ◁ Which disasters could happen and how they might be overcome?
- ◁ What kind of risks are emerging and how does the contractor manage them?
- ◁ Is the project proceeding according to the predefined plan and timetable? If not, what measures does the contractor adopt to “reset” the project on the correct path?

To answer these questions, the contractor provides regularly a report (officially handed in to the client). The report is submitted on a weekly basis, however extra attention should be given to additional costs and consumption of resources, that arise during the execution of the process (Lesjø et al., July 2019).

3.2.2 BVP in theory

As seen in Paragraph 3.1.3, complexity and collaboration issues rising gradually and thus BVP has been introduced to take them into account. According to (van de Rijt & Santema, 2012), it has been witnessed that BVP can be applied in any kind of projects, from simple (low budget) to technologically advanced complex projects. Special attention is given mainly to complex projects, since the effectiveness of the method is remarkable. That actually occurs because using flexibility, multiple outputs could be reached successfully, for instance well-performed project results with high quality and social value. However, in complex projects (concerning sustainable issues), BVP effectiveness is still debatable since not sufficient results have been recorded so far. That happens due to the client’s continuous interference, sticking to “old-fashioned” methods with low-bid selected criteria (Bruno et al., 2018).

Since BVP steps have been considered necessary for project success, it is essential though to highlight the most important activities (per BVP step) and weak points as well. According to that, a theoretical understanding of the BVP method is given, indicating the factors (and phases) where special attention is required. In the following table, a list of activities and susceptible points (including their risks) are summarized:

BVP phases	Weak Points	Risks of weakness points	BVP important activities
Pre-qualification	Pre-qualified bidders might eliminate potential valuable bids (using filters) (Storteboom et al., 2017)	By using wrong filters, a well-advanced bid might be turned down	<ul style="list-style-type: none"> Education & training sessions (coming from consultants, it is used for teaching every participant about BVP principles and values) (Wondimu et al., 2020). Together with collaboration, they are supposed to be the BVP's successful factors (Tran et al., 2017). Contract managers & clients (together) identifying necessary elements regarding contractors filtering process and specifications (Bruno et al., 2018), (Lesjø et al., July 2019)
Selection	"Non-sufficient" contractors evaluation process has been recorded so far (Lesjø et al., July 2019)	The wrong contractor selection brings non-successful project results	<ul style="list-style-type: none"> An evaluation committee (or clients) executes the contractors evaluation process (divided criteria into two distinctive categories; primary & secondary) (Tran et al., 2017). The awarded criteria have to be managed very carefully (Ying et al., 2021) Contractors' expertise is further elaborated by interviews (implementing by key personnel, such as project and contract managers) (Storteboom et al., 2017) Once the selections phase has been finished, the client usually "pre-award" the selected contractor (Bruno et al., 2018). Only one contractor is selected
Clarification	Both clients & contractors are paying less attention to the stage (particularly on delivering accurate proof for contractor's claims) (Wondimu et al., 2020)	A wrong contractor proceeds (proving different things of what he claimed in advance)	<ul style="list-style-type: none"> Contractor's leading role is indicated by explaining and elaborating further his proposal (especially in risk management plan) (Bruno et al., 2018). Predicting future unforeseen events gets more reliability and trustworthiness to contractor's status (Lesjø et al., July 2019) Negotiations (between client & contractor) might be included (to discuss how roles & responsibilities are distributed) (Bruno et al., 2018). Additionally, potential modifications on specifications and maximum price might be considered as well (Van de Rijt & Santema, 2009). Contractor is evaluated not only from their own risks (proposed by himself) but also from risks coming from "disqualified" contractors (Bruno et al., 2018). Finally, a contractual agreement between client – contractor is signed (Lesjø et al., July 2019).
Execution	Clients constant intervention on contractors work (goes against BVP philosophy) (Lesjo et al., July 2019)	The contractor is discouraged to apply their knowledge and plans (leaving space for the incompetent client to interfere)	<ul style="list-style-type: none"> Contractor takes the whole lead of the process, by applying their method on site (Lesjo et al., July 2019) Special attention is given to the preparation of the official report (in weekly basis). It's actually important because it probably brings extra costs and resources consumption (Lesjo et al., July 2019)

Table 3.2 BVP important activities and weak points (related to theory)

Considering the large number of activities and weak points (coming from each BVP step), it can be concluded that the BVP process is important and subsequently further investigation is needed. For that reason, a group of people that are specialized in certain working fields is considered as a valuable source of knowledge about BVP process. Thus, interviews should be carried out. The selection of interviewees is mainly based on the criticality of the steps, the important activities (introduced per step) and the weak or susceptible points. Therefore, the roles whose contribution on getting the right data for BVP are:

Consultants

Used as external parties to guide and share useful insights about BVP philosophy, principles and values (educate & teaching). Their contribution is vital, especially in the selection stage, where an evaluation committee should be formed in order to choose the best contractor for the project. Explicit advice on which members have to be part of the committee is given.

Contract & Project managers

Despite the knowledge of the contract terms and conditions (in terms of legality), contract managers could become an important party for BVP success (Pecherskaya et al., 2016). In the pre-qualification stage, they could outline and describe accurately all project specifications (goals, deliverables, scope, objectives, etc.) and contractors' filtering criteria. Together with project managers, they have the knowledge and experience to carry out interviews to identify and recognize even more contractors' expertise (in the selection stage). Meanwhile, the contribution of the project managers, who have the knowledge of how the tasks should be optimally distributed and to who, could be useful, particularly in the selection and clarification stages. In addition, both contract and project managers can share their experiences to prevent unexpected events or issues, for instance conflicts or misunderstandings, especially in execution stage but also in the clarification (Mahamid, 2013).

Project directors

The role of project director is really important for BVP success. Being at a senior level, actually above contract and project managers, project director has an overall responsibility to control and monitor every single task throughout the BVP process. Their liability is not restricted to a specific stage, but it starts from the beginning till the end (from pre-qualification till execution). More specifically, the project director is liable to check whether the project aligns with the total objectives and goals and intervene when is necessary (in case of a difficult situation or an unprecedented event) (AlMarar, October 2019).

Tender managers

Tender managers have a significant impact on the BVP process. In the selection stage, they could provide indispensable tips and advice on how bids might be evaluated adequately (Uil, 2021). An attention should be attributed to the awarded criteria. These criteria have to be clear to everyone, because they are utilized to choose eventually the best contractor. Since the evaluation committee or client is responsible for selecting the best contractor, tender managers should establish a close relationship with them so as to help in the selection process.

3.3 Conclusions

The procurement system is considered as a useful tool for delivering successful project results. The procurement categories vary and include different elements in order to achieve the same goal; project success. The traditional procurement is showed up as the most dominant and well-known method globally (Arain et al., 2014). Despite its popularity, it is impractical to be used within projects where a large necessity of collaboration and complexity is needed, since the final project result is no longer successful (Dada, 2012). Therefore, Best Value Procurement has been introduced to fill the missing gap of project success. An advantage of BVP is the evaluation of the contractors using several factors and criteria, both price and non-price factors. Moreover, the four steps of BVP are really important and have a significant influence on the final result. To answer the first sub-question, a BVP theoretical model was established.

- ◁ In the **pre-qualification stage**, a consultancy firm is used in order to teach all parties (especially clients and contractors) about BVP philosophy, principles and values. Meanwhile, filtering criteria for distinguishing contractors' profiles are applied. All the important elements (for instance, specifications and filtering criteria) are described precisely by both contract managers and client.
- ◁ In the **selection stage**, an evaluation committee (or client) assesses contractors' suitability by applying certain awarded criteria (both price and non-price). Unbiased and fair judgement is taking place. Additionally, interviews, conducted by either a contract or project manager, are carried out in order to recognise even more contractors' expertise. In the end, the main objective is to select the best contractor, for the execution of the project.
- ◁ In the **clarification stage**, the qualified contractor has to substantiate their plans to the client. The contractor needs to use their expertise and knowledge in order to prove that their assumptions can function pretty well (delivering a successful result). Additionally, negotiations about specifications and maximum price modifications might be considered as well. Lastly, contractor is evaluated not only from his own risks but also from risks coming from rejected contractors.
- ◁ In the **execution stage**, the qualified contractor takes fully control of the process and exercises their plans on site. Also, the contractor is liable for informing (submitted an official report) the client about working progress and potential changes, happening during the process (explaining

why they took place). Extra attention should be given on the official report since additional costs and resource consumption usually happen.

However, the findings from the existing literature, reveal that a large number of activities and elements, for example the contractors' selecting criteria, BVP's success factors, and the weak points of the BVP, constitute project success a challenging issue. Therefore, interviews with professionals (around BVP) should be conducted, aiming to further investigate how the BVP is implemented in practice.

4. Empirical study

The aim of this chapter is to gather viewpoints about the practical implementation of the BVP. Interviews provide important information about certain BVP features for instance, BVP weakness points, BVP success factors, contractors' selected criteria, BVP steps, showing a significant influence on the final project success. More specifically, in Section 4.1 a clear demonstration of which criteria (or requirements) are applied in order to select the interviewees is given. Subsequently, in Section 4.2 a summary of interviewees' beliefs (seven in total) is presented and Section 4.3 states the most important findings from the interviewees' viewpoints. Finally, Section 4.4 concludes by answering the second sub-question (SQ2). All interviews are analytically demonstrated in Appendix B.

4.1 Interviewees

As mentioned before (in Paragraph 3.2.2), a number of parties with different backgrounds and roles were chosen to participate in interviews. For the selection of the interviewees, criteria were implemented derived from the literature findings. The criteria are based on:

- ◁ The significance of BVP steps in project success
- ◁ The important activities and weak points, including in every single BVP step
- ◁ The involvement of interviewees with the BVP concept (roles and knowledge)

Using the above-mentioned criteria, parties from public organisations and consultancy firms participated. That actually derives from the necessity of getting valuable information related to the BVP activities:

- ◁ Consultancy firms are used to set up the scene for the BVP and propagate the BVP philosophy around parties, by organising training sessions. As external partners, they could also help with the formation of the evaluation committee (if it is used for contractor selection)
- ◁ Public organisations incorporate different roles:
 - Project & Contract managers: Both carry out interviews in the selection stage in order to identify contractors' expertise. One remarkable difference is that contract manager is able also to describe project specifications, ambitions, goals and the contractors' filtering criteria in the pre-qualification stage. On contrary, project managers would help on distributing fairly every task to each party.
 - Tender managers: The involvement of tender managers through BVP process started from the selections stage. In that stage, they could explain precisely how contractors' evaluation process has to be conducted (giving useful advice either to evaluation committee or client) (Uil, 2021).
 - Project Directors: Their role has more responsibilities and liabilities than project or contract managers. Project directors have to check if the project complies with the objectives or goals alongside its implementation (AlMarar, October 2019). Their involvement begins from the pre-qualification till execution stage.

4.2 Interviewees viewpoints

A summary of the interview findings is presented below. The transcripts of interviews can be found in the Appendix B.

Interviewee (Company Director, Consultancy Firm, 13 BVP projects)

Using BVP in the construction industry, it is expected that contractors will take the entire leadership under their control. There is a clear tendency for giving contractors the sense of freedom and flexibility to work independently and without any intervention from clients. That is the reason behind the BVP success, by serving excellent results under certain budget and time constraints. Additionally, both

contractors and clients could receive an appropriate education and training from consultants (teaching for BVP principles and values) mostly in the selection phase, but also in the clarification.

Interviewee 2 (Tender Manager, Consultancy Firm, 2 BVP projects)

When BVP is chosen as a procurement method, multiple factors are taken into account. Past performance, background experience and quality metrics are characterized as really important for BVP process. Even if he had only two projects with the BVP method, sometimes more than one contractors might be selected (for instance, four). That happens due to the large workload and complexity of the project (renovated buildings with more than 10,000 houses). The most important BVP stage is the clarification, since the qualified contractor (or contractors) have to prove and secure that their plans operate pretty well. Lastly, by investing on trust and contractors expertise, a successful BVP result would inevitably happen.

Interviewee 3 (Company Director, Consultancy Firm, 5 BVP projects)

Without a doubt, BVP certainly incentivizes contractors to be actively involved through the project. Basically, that necessity derives from client's incapability to introduce new ideas and plans. "Old – fashioned" approaches are absolutely dangerous with unfavourable consequences, in terms of project success. Speaking more about the BVP process, it is necessary to pay more attention to both selection and clarification stages. That happens because every client must be 100% sure that his contractor selection is the best option. In addition, by targeting at strong relationships between contractor – client a successful result is ultimately achieved (mobilized by training sessions). However, modifications within BVP's context and concept reduce its effectiveness and negatively affect the project result.

Interviewee 4 (Senior Consultant, Consultancy Firm, 15 BVP projects)

BVP is an ideal method for any kind of projects. Since the selection stage is considered as a significant part of the BVP, several criteria have been introduced (to evaluate the candidates). Past performance indicators, innovation awareness and quality metrics are some criteria indicating the capability of contractors. Depending on the magnitude and scale of the project, a series of interviews have been conducted. Additionally, complexity and uncertainty are factors influencing the number of interviews. However, it has been noticed that contractors usually acting in a selfish (non-professional) mode, which apparently deteriorates collaboration and increases project failure. Lastly, according to the clients' perspective, 30% agree on adopting BVP in projects.

Interviewee 5 (Senior Consultant, Consultancy Firm, 3 BVP projects)

BVP fits better for contracts in which more than one contractor involved. In multiple cases, he has noticed that several contractors (usually four) can be engaged in a contract with different objectives and goals (long-term duration contract). Therefore, a proper attention is given to the clarification phase, where every contractor substantiates their thoughts and plans. Additionally, the BVP attention is attributed in future robust relationships between parties (e.g. client and contractor relationship). Trust, mutual appreciation, past performance indicators (indicating value creation) and quality metrics are important BVP elements. Actually, the purpose of setting up a contractual agreement is not focused into "one-way run", but establishing a long-term partnership for years. A serious downside of BVP comes from the time constraints and limitations are imposed by clients. It is practically impossible to successfully exercise the BVP method where time restrictions are imposed to contractors (impossible to reveal their work in a "matter of seconds"). Lastly, clarification and selection phases are the most important stages in the BVP process.

Interviewee 6 (Project Director, Public Organisation, BVP projects)

BVP is called “a value for money” method since the best outcome is derived with the minimum cost effort. In other words, the job is executed under a certain budget (fair enough) with beneficial results. Selection and clarification stages are the most important in the BVP process. The selected contractor has the appropriate expertise and experience to deliver client’s expectations and ambitions within a predefined timeframe. Moreover, It has been noticed that BVP can successfully be implemented in any kind of projects, no matter its size or complexity. However, there is a lack of knowledgeable clients (by establishing clearly the scope, objectives and specifications of the project) the contribution of who is undeniable.

Interviewee 7 (Contract Manager, Public Organisation, BVP projects)

Even though BVP is famous for acquiring the best contractor in accordance with certain criteria prescribed in the selection stage, it is necessary for the client to know whether the qualified contractor, the one with the appropriate background and experience, follows the same mindset with the client or not. Additionally, BVP seems more applicable in complex projects with relatively bigger interfaces rather than in simple ones. And that happens obviously because in a simple project, a client can implement different procurement methods, such as the traditional procurement. Moreover, flexibility and freedom are two significant parameters which each contractor could use to ensure best result. Lastly, the participation fee could become an important hindrance for every organisation, even more for small/middle class firms, to take part in the BVP process.

4.3 BVP in practise & results

4.3.1 Presentation of BVP (practical) results

Once interviews were finished, a detailed analysis was conducted, covering the most important findings from interviews. A list of elements (practical findings) are sorted into categories, as critical components, presented in Section 3.3. That explains the factors which are considered important for BVP implementation in practice. The following tables display the classification of practical findings into categories (table 4.1) and the correlation between practical findings – interviewees’ beliefs (table 4.2). For simplicity, the interviewees in Table 4.2 are represented by numbers in brackets.

BVP Steps	BVP weaknesses	Contractor Selected Criteria	BVP success factors
Selection stage	High BVP participation cost	Past performance indicators	Training sessions
Clarification stage	Unrealistic parameters representation (cost, time)	Background experience	Robust relationships (client & contractor)
	Limited BVP knowledge	Quality metrics	
	BVP constant modifications (context & content)	Expertise	
	“Non-professional” behaviour of contractor		

Table 4.1 BVP important elements (related to practical approach)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Selection stage	X		X	X	X	X	X
Clarification stage	X	X	X		X	X	
Past performance indicators		X		X	X		
Background experience	X	X				X	X
Quality metrics		X		X	X		
Expertise	X	X	X			X	
Training sessions	X		X				
Robust relationships (client & contractor)			X		X		
High BVP participation cost							X
Unrealistic parameters representation (cost, time)					X		
Limited BVP knowledge						X	
BVP constant modifications (context & content)			X				
“ Non professional contractor				X			

Table 4.2 Correlation between interviewees' beliefs - BVP findings

4.3.2 Explanation of findings

Following the summary of the findings (in Tables 4.1 & 4.2), a brief description of each finding is given.

Selection Stage

It has been considered by many (total six) as the most important BVP phase. The selection stage is coming after the pre-qualification stage, where an attention is given on collecting documents for contractors' status and placing a restriction of maximum twelve candidates. Moreover, in the selection stage, the client evaluates and assesses contractors' skills and knowledge regarding the project specifications. Several criteria, including past performance indicators and quality metrics are applied for better selection of the contractor. An interesting remark is the embodiment of more than one contractors in the clarification stage (usually four contractors might be part of the clarification process). That could happen under certain circumstances, for instance huge workload and flexibility demand. Additionally, depending on the project scale, multiple rounds of interviews are taking place, being used as an additional filter for the evaluation of the contractors.

Clarification Stage

A considerable number of interviewees (five in total) characterize the stage as the “heart” of the BVP method. The importance of the phase comes from the necessity to verify the plans of the contractor. That ensures credibility and reliability of the contractor's assumptions toward a successful result. Lastly, negotiations and discussions between parties, particularly client & contractor, could take place resulting in the beneficial distribution of tasks and responsibilities. Once the clarification stage has finished, the execution phase starts (as last stage) where the contractor takes over the entire process.

Past Performance indicators

Contractor's performance plays an important role in the evaluation process, conducted in the selection stage. By taking into account a past record of BVP projects, implemented successfully by the contractor, it provides a better understanding of whether the contractor has executed their work (by

meeting certain constraints, such as cost, time, scope and quality) or not. Simultaneously though, a well-performed contractor can secure value through the project.

Background Experience

The experience within projects, especially throughout large/complex projects is fundamentally important. It provides security and reliability against potential threats (e.g. cost overruns or time delays) which normally deteriorate the end result.

Quality metrics

Together with past performance indicators, they formulate the main selecting criteria for the evaluation of the contractors' evaluation. Quality metrics are perceived as the actions which are necessary to ensure and safeguard a long-term functionality and operability of a project.

Expertise

Several interviewees (four out of seven) consider expertise as a critical element in the BVP implementation. It includes the specialisation (of each participant) and knowledge in accordance with the BVP principles and values. Additionally, expertise demonstrates contractor's capability to successfully undertake a difficult project.

Training Sessions

In order to establish a proper BVP execution, training sessions are needed. In that case, everyone has to be aware of the BVP concept, and its principles. Meanwhile, a sufficient understanding of how roles, tasks and responsibilities are allocated throughout parties is achieved, avoiding conflicts and misunderstandings. The training part is an ongoing process, starting from the pre-qualification till the execution phase, securing BVP's successful realization.

Robust Relationships (client contractor)

Since the BVP is focused on collaboration, it is important to safeguard robust relationships between parties, especially in contractor – client partnership. At that point, BVP incentivizes everybody to place their ambitions under the common project's milestones and objectives.

High BVP participation cost

By using BVP as a procurement method, a huge amount of money is wasted. The participation fee is not easily tolerated, thus sometimes a non-willingness attitude occurs in the industry, especially in small or middle-class businesses.

Unrealistic parameters representation (cost, time)

When an inexperienced personnel (consultants or clients) is actively engaged in the BVP concept, apparently issues regarding specifications occur. Specifications include certain expectations regarding cost, time, quality and performance. However, being more optimistic (about the conditions of the project), creates an unrealistic scenario of finishing a project under low budget and time.

Limited BVP knowledge

Even though BVP has been introduced in the Netherlands almost eighteen years ago, there is a number of parties whose knowledge of BVP is slightly limited. That derives from the "older" generation of engineers, whose reluctance on being exposed to the BVP projects occurs. These engineers have the role of clients, whose contribution at the beginning of the project is actually important.

BVP constant modifications (content)

In a few cases, it has been noticed that project parties, either clients or contractors, push for modifications and changes in the BVP concept. That idea is adopted in order to alter the BVP concept according to clients' or contractors' favours and preferences (totally against in the BVP philosophy).

V -

Being as an important member of the entire project, the contractors, have a tendency to act in a non-cooperative way. By prioritizing their own interest, contractors' target is to achieve maximum profits and earnings. However, by undermining collaboration, conflicts and misunderstandings among parties may be evoked.

4.3.3 BVP practical framework

The practical side of BVP provides explicit answers on how the method is applied in practice. According to the theoretical framework, there are four phases of the BVP; pre-qualification, selection, clarification and execution. Therefore, the following table illustrates the practical framework of BVP related to the BVP phases:

BVP phases	Important Activities
Pre-qualification	<ul style="list-style-type: none"> • Training & education sessions are necessary steps. In that case, everyone being involved in the process should be aware of BVP principle and values • It is expected that legal, financial & administrative documents are requested for examining the submitted candidates • Considering the size, duration or magnitude of project, a maximum number of twelve candidates is concerned.
Selection	<ul style="list-style-type: none"> • Training & education sessions are still taking place during the entire process, to oversee its progress • Evaluation process is the most important part of the stage. The selection of the best contractor gets the attention of parties (for example, clients) • Interviews are introduced to clarify better whose (contractors) expertise fits best in the content of the project. The number of interviews varies depending on the project scale • Sometimes, four contractors could be chosen for the clarification stage
Clarification	<ul style="list-style-type: none"> • Training & education sessions are still taking place during the entire process, to oversee the entire process • Important stage because accuracy and reliability of the contractors assumptions and proposals are needed. They are responsible to substantiate and prove their proposal on ground • Negotiations and discussion between parties about tasks & responsibilities allocations occur quite often
Execution	<ul style="list-style-type: none"> • Training & education sessions are still taking place during the entire process, to oversee the entire process • Contractor takes over the entire process by implementing their methods and plans on site

Table 4.3 BVP important activities (per phase)

4.4 Conclusion

It has been noticed that BVP's practical implementation provides a great source of knowledge and understanding towards the method's content. Certainly, some BVP phases (such as selection or clarification) attract a significant attention from the market industry due to their importance through the final project goal. Either the selection (using criteria for contractors' evaluation) or the clarification phase (contractors' responsibility to prove/substantiate their plans) have actually great impact on the project success. However, besides the high importance of both selection and clarification phases, the

theoretical BVP framework includes four phases. Therefore, in order to answer the second sub-question, a BVP practical framework (related to the four BVP phases) was established.

- ◁ In the [pre-qualification stage](#), a consultancy firm is used (exactly as in theory) for teaching all parties, especially clients and contractors about BVP philosophy, principles and values. Meanwhile, filtering of contractors' profiles takes place. Meanwhile, a limitation of the submitted participants based on the size, duration and magnitude of the project is established. The maximum number of participants is twelve.
- ◁ In the [selection stage](#), consultants are checking if the BVP process is adequately implemented or interventions are needed to fix problems. Meanwhile, clients have to choose, among several participants, the best contractor to implement the project. That selection is based on multiple criteria, including not only price but also non-price criteria. Additionally, once the first part of evaluation process finishes (based on the price and non-price criteria), interviews are coming to assess further the contractors. Project or contract managers carry out the interviews, focus mostly on evaluating contractors' expertise. The number of interviews depends on the project size (small, medium, large). At the end of the stage, only one contractor is chosen by client. However, sometimes depending on the project particularities more than one contractor might be selected
- ◁ In the [clarification stage](#), consultants are getting involved in order to examine if the BVP process is applied sufficiently or intervention is needed to fix forthcoming issues. Additionally, contractor takes the lead and substantiates/proves their plans on ground in order to get the client's confirmation of having the contract. Moreover, negotiations and discussions around the distribution of roles, responsibilities and tasks, especially on the contractor's side, are applied.
- ◁ In the [execution stage](#), the qualified contractor executes their plans on site. Moreover, consultants check if everything is implemented sufficiently or intervention is needed to fix issues.

Nevertheless, a significant number of drawbacks coming from the BVP practical usage are considered important and require a certain kind of attention. As a result, a comparison of the theoretical and practical BVP frameworks is needed in order to come across how many differences and similarities emerge.

5. Research Results

This chapter aims to identify what differences and similarities emerge between the theoretical and practical BVP frameworks. Therefore, in Section 5.1 a comparison between two perspectives (theory & practice) is presented, displayed in Table 5.1. Next, in Section 5.2 an overview of the results between theory – practice is implemented. Moreover, in Section 5.3 a demonstration of the adjusted BVP recommendations is given and finally, Section 5.4 provides an answer to the third sub-question (SQ3).

5.1 Theory – Practice comparison

The following table illustrates the findings coming from both theory & practice.

	Pre-Qualification	Selection	Clarification	Execution
Theory	<ul style="list-style-type: none"> The phase is optional. The partnership between clients & contract managers provides project elements such as specifications. Also, elements for filtering contractors' profile are presented as well (Bruno et al., 2018), (Lesjø et al., July 2019) Training sessions (from consultants) bring sufficient understanding of BVP philosophy, principles and values (Wondimu et al., 2020). Together with collaboration, they formulate the BVP success factors (Tran et al., 2017). 	<ul style="list-style-type: none"> Clients (or evaluation committee) assess contractors based on awarding criteria (describing in the pre-qualification stage). These criteria are sorted into two categories; primary & secondary (Tran et al., 2017). Interviews with key personnel (either project or contract managers) helps the clients to identify better contractors expertise (Storteboom et al., 2017). At the end of the selection phase, the client "pre-awards" the selected contractor (Bruno et al., 2018). Only one contractor is selected 	<ul style="list-style-type: none"> Contractor's opportunity to elaborate more detailed their plans and risks and predict unforeseen future challenges. That improves contractor's reliability (Lesjø et al., July 2019) The contractor is evaluated not only from his own risks, but also from risks coming from rejected candidates (Bruno et al., 2018) Negotiations, between client & contractor, might occur by allocating roles and responsibilities (Bruno et al., 2018) Changes and modifications in maximum price and specifications might be taken into account (Van de Rijt & Santema, 2009) 	<ul style="list-style-type: none"> Contractor takes the lead and decide what needs to be done (executed) (Lesjø et al., July 2019) An official report (in a weekly basis) provided by contractor to the client. The report includes potential risks and hazards, presenting the working progress (Lesjø et al., July 2019) The report needs a careful handling due to the fact that extra costs & resources consumption might occur (Lesjø et al., July 2019)
Practice	<ul style="list-style-type: none"> It is expected that legal, financial and administrative documents are requested for examining the submitted candidates. Normally, the number of candidates varies. Usually the maximum number of bidders is twelve, depending on the project scale The phase is optional. Training & education sessions spread the BVP "spirit" along parties (BVP principles, values) 	<ul style="list-style-type: none"> The evaluation process is the most significant part of the stage. The selection of the best/suitable contractor is really necessary Quite often four contractors could be selected to move in the clarification stage Consultants provide training sessions about BVP values to both clients & contractor, so that an effective result will be achieved. The consultation is an ongoing process and it happens during the entire BVP process Interviews are taking place (the number depends on the scale & size of each project) 	<ul style="list-style-type: none"> A critical stage, where reliability and accuracy are demanded from the contractor side. That could be achieved by proving every assumption on the ground Consultants provide training sessions about BVP. The consultation is an ongoing process and it happens during the entire BVP process Discussion and negotiations between parties, particularly for responsibilities and roles allocation could implemented 	<ul style="list-style-type: none"> The contractor becomes the leader of the process by implementing his plans on the construction site Consultants provide training sessions about BVP. The consultation is an ongoing process and it happens during the entire BVP process

Table 5.1 Theory vs Practice

5.2 Overview of results

Following by the comparison (presented in Table 5.1), it is necessary to check to what extent the findings are converged or not. This inherently provides an explicit understanding of whether everything that has been proposed in theory, happens in practice as well. Therefore, findings are sorted into two groups; Similarities and Differences.

Similarities

- ◁ In the pre-qualification phase, education and training sessions seem to be indispensable parts of the BVP success. The awareness of the method and understanding by every single participant is absolutely critical (avoiding conflicts and disputes). Additionally, both perspectives agree upon the optionality of the phase.
- ◁ In the selection phase, both perspectives agreed upon the importance of selecting the best/most suitable contractor. Additionally, interviews with key personnel are considered as an important "tool" for better identification of contractors' expertise.
- ◁ In the clarification phase, negotiations and discussions between parties (client & contractor) happened quite often. Usually, the main topic of discussion is the allocation of responsibilities and roles. Moreover, both sides consider that stage really important since reliability and accuracy from contractor's side are required (by substantiating their plans on ground).

- ◁ In the execution phase, both perspectives agreed on contractor's active involvement throughout the process. At that stage, contractor takes over the entire process, by implementing their plans and methods.

Differences

- ◁ In the pre-qualification phase, the **theory** does not impose any restrictions on inviting candidates for submitting bids. However, in **practice** it has been noticed that the number of submitted candidates varies, depending on the project scale. The maximum number is twelve.
- ◁ In the selection phase, **theory** mentions that separation of awarded criteria is needed. The criteria are sorted into two categories; primary & secondary. On contrary, **practice** does not pay attention on the division of the awarded criteria. More attention is given to the consultation process, which provides necessary information about BVP process. The consultation is an ongoing process which does not stop till the execution stage finishes. Lastly, sometimes more than one contractor (for example four) could be selected, to move forward to the clarification stage.
- ◁ In the clarification phase, **theory** states that potential modifications in maximum price and specifications might happen during that stage. Additionally, contractors' evaluation happens not only from their own proposed risks, but also from risks derived from disqualified candidates. That actually provides extra security and safeguard against potential wrong decisions (on selecting incompetent contractor). On contrary, in **practice** focus is given on a constant consultation process, from consultants to every party.
- ◁ In the execution phase, fewer differences were witnessed. In **theory**, an official report given from contractor to client is established. The report presents the working progress, explaining in detail whether a deviation from the initial plan has occurred. On the other hand, the official report was not mentioned in **practice** at all

5.3 Adjusted BVP recommendations

Since an overview of the results has been presented, it is necessary to pay more attention in the differences and contradictions between theory & practice. That actually happens in order to acquire a better understanding of why theory and practice do not align and what actions are needed to improve the BVP itself. Meanwhile, some common viewpoints, between theory and practice, give additional value for the improvement of the BVP. Therefore, concerning mostly the differences (theory- practice) but also some useful common elements, a list of adjusted BVP recommendations is established. The following table depicts the adjusted recommendations per BVP phase:

BVP phases	Adjusted BVP recommendations
Pre-qualification	Since the pre-qualification stage is currently optional, it is highly recommended to become mandatory, especially in complex projects
	A limitation of submitted participants is desirable regardless the project's size, magnitude
	Together with clients, consultants should be part of the organisational team. Consultants can provide knowledge about the BVP
Selection	An evaluation committee should be formed to assess unbiased and fairly contractors' expertise
	Considering the project type, a series of interviews are required to evaluate contractors' expertise
	In case of large scale project, it is essential to select more than one contractors
Clarification	Consultants actively involvement motivate contractor and client to take seriously that phase
	Maximum price and specifications should remain the same over the process
	Contractor should clarify and explain in detail how risks could be minimized (or take advantage). It is advisable to mitigate risks coming from rejected contractors
Execution	An official report should be provided by the contractor to client. The report indicates deviations and possible modifications on the initial plan
	It is advisable the client to remain closely to contractor (to help him with unprecedented events)

Table 5.2 Adjusted BVP recommendations

Although, BVP adjusted recommendations have been introduced, it is necessary to incorporate BVP experts in order to verify and validate these recommendations. That offers credibility and trustworthiness to the adjusted proposals.

5.4 Conclusions

The aim of this chapter is to unveil the differences and similarities between theoretical – practical sides of BVP. Both differences and similarities are considered critical for the implementation of the BVP. To answer the third sub-question, a list of differences between theory & practice is presented:

- < Limitations in submitted participants
- < Division of contractors' awarded criteria
- < Consultation process
- < Number of qualified contractors
- < Modifications on price & specifications
- < External risks (from third parties) on contractors' evaluation process
- < Official report

Taking into account the above-mentioned differences, it has been noticed that BVP method has important deviations between theory and practice. These deviations do not ensure successful results and thus a new BVP adjustment (or recommendation) points are needed. However, these points lack credibility and verification, so interviews with BVP experts should be conducted to evaluate the adjustments.

6. Experts Interviews

This chapter aims to present interviews with BVP experts, whose contribution is important to validate the adjusted recommendations for a new BVP model. More specifically, in Section 6.1 a brief description of the experts is given (e.g. indicating the number of experts, how they were selected, etc.). Next, in Section 6.2 the findings are presented through a table, which highlights the most important points (per expert). Moreover, in Section 6.3 a detailed demonstration of the new alternative BVP model is given. Finally, the Section 6.4 is resulted in answering the fourth sub-question.

6.1 Experts' description

Interviews with experts are established in order to validate and potentially alter the adjusted BVP recommendations, concluded from the comparison of theory & practice. Therefore, the number of selected experts is three:

- Expert 1 (consultant)
- Expert 2 (consultant)
- Expert 3 (contract manager)

The experts were chosen based on their knowledge and experience around the BVP concept. Being members of consultancy firms, as BVP advisors and trainers, or members of public organizations, as contract managers, provide useful advice and recommendations on how the adjusted BVP proposals might be applied and under which circumstances. The questions which were asked to the experts have been already mentioned in Section 5.3, particularly in Table 5.2.

6.2 Experts' findings view

Once experts' viewpoints have been gathered, a brief demonstration of the most important findings is displayed. Simultaneously, all findings from the experts' interviews, are placed in the Appendix C. The following tables illustrate the highlights (per BVP phase) and general remarks from each expert:

	General Remarks	Pre-qualification	Selection	Clarification	Execution
Expert 1	<p>a) Consultancy firm is a neutral third party (part of the client's team)</p> <p>b) Contractors' technical knowledge & expertise means the ability of delivering an asset under a certain budget</p> <p>c) Every plan modification should be followed by BVP principles (transparency & win-win)</p>	<p>a) The importance of that phase is noticeable in complex rather than small projects</p> <p>b) In large-scale projects, a limitation of submitted participants is required</p> <p>c) Consultants are really important to provide knowledge (about BVP) over the entire BVP process</p>	<p>a) Interview sessions are part of the evaluation process (not separate)</p> <p>b) Only one contractor is selected to minimize conflicts and miscommunications</p> <p>c) Consultants are really important to provide knowledge (about BVP) over the entire BVP process</p>	<p>a) Project specifications should remain the same in the overall process. That avoids discrimination among parties. Maximum price might be change during the process</p> <p>b) The qualified contractor might explain (find solutions) risks coming also from disqualified parties</p> <p>c) Consultants are really important to provide knowledge (about BVP) over the entire BVP process</p>	<p>a) An official report from contractor to client should be given on a weekly basis (informing about the working progress)</p> <p>b) In case of difficulties, it is necessary both the client and the contractor to help each other</p>

Table 6.1 Expert 1 viewpoints (per BVP phase)

	General Remarks	Pre-qualification	Selection	Clarification	Execution
Expert 2	<p>a) At pre-qualification phase, training sessions spread the BVP philosophy towards parties. In the end, clients publish the RFP document (Request For Procurement). That document is known as tender document</p> <p>b) Since a BVP step finishes, it is essential to demonstrate briefly what deliverables are expected to be achieved</p>	<p>a) The importance of that phase is related to the market (where is applied). If market is mature enough, then pre-qualification does not required. Otherwise, it is needed</p> <p>b) A limitation in submitted participants is not a good idea (since participants are slightly aware of possibilities to get the project)</p> <p>c) Consultants are really important to provide knowledge (about BVP) over the entire BVP process</p>	<p>a) Interview sessions could be useful, however the number of “rounds” is not fixed (depends largely on project size)</p> <p>b) Only one contractor is selected (stated in the tender documents)</p> <p>c) Consultants are really important to provide knowledge (about BVP) over the entire BVP process</p>	<p>a) Project specifications and maximum price should remain the same. In case of changes, the rejected candidates might express their disappointment of being discriminated</p> <p>b) The qualified contractor might include a detailed risk management plan, incorporating risks coming also from disqualified parties</p>	<p>a) An official report should contain 20 pages, explaining why plan deviations emerge. On contrary, a weekly report states only the working progress</p> <p>b) Client and contractor should remain in contact (helping each other). Though, it’s necessary for both sides to accept each others knowledge (and not be shelfish)</p>

Table 6.2 Expert 2 viewpoints (per BVP phase)

	General Remarks	Pre-qualification	Selection	Clarification	Execution
Expert 3	<p>a) At pre-qualification stage, the training sessions should be given to both client and contractors, even if clients might know already about the BVP concept</p>	<p>a) It is absolutely important to use the pre-qualification stage. It gives the opportunity to assess first the bidders’ profile and then the bids itself</p> <p>b) A limitation in submitted participants is depending on the project size, for instance, in complex projects maximum 3-5 bidders are invited. In simple projects, 10 bidders could be invited</p> <p>c) Mostly, consultants are not preferred, since our team can implement the BVP project without an external help. In some cases (high complexity), consultants might help</p>	<p>a) Interview sessions could be useful to check if the contractor understands the project. However, it is necessary to be implemented carefully, avoiding issues with objectiveness</p> <p>b) Only one contractor is selected</p>	<p>a) Project specifications and maximum price could be changed coming from unprecedented difficulties, for instance environmental conditions. However, quality has to remain the same and not change</p> <p>b) The qualified contractor needs to be evaluated only with their proposal and their own risks</p>	<p>a) Changes/modifications are quite common. Due to high risks and money spending to bring back the project on track, it is necessary to include an official report (given from contractor to client). Therefore, everyone could be aware of any kind of change</p> <p>b) Client and contractor should remain “in touch” helping each other. That is written to the contract agreement.</p>

Table 6.3 Expert 3 viewpoints (per BVP phase)

Considering the highlights of each expert, it can be noticed that all the experts have slightly similar ideas and viewpoints about the BVP concept. An overall picture of where the common ground, of experts’ beliefs, is given next (related to BVP phases).

Pre-qualification

- ◁ All experts agreed upon the necessity of the pre-qualification phase in BVP success. Under certain circumstances (market non-maturity, complex projects and contractors’ filtering process), pre-qualification should be positioned as a mandatory step

Selection

- ◁ Interview sessions have been considered as a significant part of the entire evaluation process. Depending on the scale, magnitude and importance of the project, the total number of interviews varies. Additionally, it might be conducted very carefully because objectiveness needs to be safeguarded.
- ◁ Once the selection phase has been finished, only one contractor must be chosen

Clarification

- ◁ Both experts one and two (working as consultants) agreed upon the consolidation of project’s specifications and maximum price over the entire process. That happens to secure non-discrimination among participants. However, the third expert (contract manager) referred to

potential changes might occur throughout the process influencing the specifications and maximum price as well (related to environmental conditions)

- ◁ Moreover, experts one and two consider risks coming from disqualified candidates, really important for evaluating the qualified contractor. Those risks can be noticed as an additional evaluating criterion for the contractor. On the contrary, the third expert does not support the idea of providing extra risks to the contractor. The contractor needs to be evaluated based on their own proposal

Execution

- ◁ Additionally, all experts approve the idea of collaboration, between client – contractor. Since a difficult situation emerges, both parties have to be ready for helping. The acknowledgement of parties' knowledge, from both sides, is necessary
- ◁ All experts agree with the submission of an official report, from the contractor to the client. The report contains useful information about potential deviations and changes through the process

6.3 The alternative BVP framework

Once experts have delivered their viewpoints regarding the adjusted BVP recommendations, an alternative BVP framework was established. This framework includes elements, factors and activities which are used to deliver a successful result of BVP. Meanwhile, in the Appendix D, a table describes the current implementation of BVP, combination of elements coming from theory & practice. The table below illustrates the alternative BVP framework:

STAGE 0 1 Training Phase	STAGE 1 Pre-qualification	STAGE 2 Selection	STAGE 3 Clarification	STAGE 4 Execution
<p>Purpose</p> <ul style="list-style-type: none"> Teaching project parties about BVP method (principles, values etc.) (Wondimu et al., 2020) <p>Activities</p> <ul style="list-style-type: none"> Clients, as project initiators, hire consultants in order to help them with project execution Consultants, as a neutral third parties, should transmit the knowledge of BVP by executing several training sessions before project begins (Wondimu et al., 2020) 	<p>Purpose</p> <ul style="list-style-type: none"> Filtering contractors' profiles Describe project factors (influencing BVP success) <p>Activities</p> <ul style="list-style-type: none"> Consultants help clients to execute the stage successfully, sharing information, advice and tips Contract managers and clients identify project specifications (objectives, goals, ambitions). Also, contractors' filtering criteria are established from both contract managers and clients (Bruno et al., 2018), (Lesjo et al., July 2019) Additionally, consultants & clients introduce limitation on submitted participants, less workload for evaluating contractors 	<p>Purpose</p> <ul style="list-style-type: none"> Selection of the best contractor (executing the job) <p>Activities</p> <ul style="list-style-type: none"> An evaluation committee, which members might come also from the client organisation, or clients have to evaluate unbiased all the contractors (Tran et al., 2017) Consultants and tender managers try to force the evaluation committee to apply a fair judgement, by using carefully the awarded criteria Interviews might be part of the evaluation process, carried out by project managers or contract managers' expertise The number of interviews depends on the scale, size, complexity of project (Storteboom et al., 2017). For instance, a small project requires only one interview. On contrary, a complex project requires several rounds of interviews Only one contractor is selected 	<p>Purpose</p> <ul style="list-style-type: none"> Contractor's opportunity to test/prove his plans in practice <p>Activities</p> <ul style="list-style-type: none"> Training sessions, from consultants, are necessary to be conducted throughout the BVP process (from beginning till end). They transfer knowledge and advice to parties Contractor is applied methods in order to prove/substantiate his plans. If a software is using on his plans, he needs to run multiple rounds of tests to prove their functionality. Negotiations between client – contractor about roles, responsibilities, tasks allocation is carried out (Bruno et al., 2018). Additionally, discussions about whether specifications and maximum price should be remain the same or not during the process occur. Risks from disqualified contractors should be demonstrated to the qualified contractor in order to test his capability on solving them, increasing contractor's reliability (Bruno et al., 2018), (Lesjo et al., July 2019) 	<p>Purpose</p> <ul style="list-style-type: none"> Project realization and successful delivery <p>Activities</p> <ul style="list-style-type: none"> Training sessions from consultants are necessary to be conducted throughout the BVP process (from beginning till end). They transfer knowledge and advice to parties Contractor's plans and methods implementation on site Contractor should inform the client about possible deviations (divergions) on his initial plan. Every difficulty facing during the phase, it needs to be informed to client. Extra attention due to probability of high cost and resources consumption. (Lesjo et al., July 2019) Both clients & contractor have to collaborate and keep in touch for solving potential difficulties

STAGE 0 1 Training Phase	STAGE 1 Pre-qualification	STAGE 2 Selection	STAGE 3 Clarification	STAGE 4 Execution
<p>Elements</p> <ul style="list-style-type: none"> Guidelines (in a written form). These documents include detail information about how BVP is applied (values, principles etc.) 	<p>Elements</p> <ul style="list-style-type: none"> Primary elements: <ul style="list-style-type: none"> Specifications Information of tenderers Quotation Awarding criteria Secondary elements: <ul style="list-style-type: none"> Soft criteria: <ul style="list-style-type: none"> Past performance indicators Human resources Machinery/equipment Hard criteria: <ul style="list-style-type: none"> Bank statements Legal stability Administrative status 	<p>Elements</p> <ul style="list-style-type: none"> Awarded criteria used by the evaluation committee <ul style="list-style-type: none"> Primary elements <ul style="list-style-type: none"> Past performance & quality Record of success, successful BVP projects in past Project completion under certain budget, time, quality) Secondary elements: <ul style="list-style-type: none"> Effective management of sub-contractors Corporate commitment on achieving customer satisfaction Awarded criteria for interview process <ul style="list-style-type: none"> Risk management plan Value added plan 	<p>Elements</p> <ul style="list-style-type: none"> Specifications remain the same during process Maximum price remains the same during process Contractor's plans and methods Risks from the disqualified contractors 	<p>Elements</p> <ul style="list-style-type: none"> An official report. That report explains why single deviation on the schedule happens. 8 Each deviation needs to be clarified in details in 20 pages The weekly report includes information about working progress
<p>Including parties</p> <ul style="list-style-type: none"> Clients Consultants Contractors Project managers Contract managers Tender managers Project directors 	<p>Including parties</p> <ul style="list-style-type: none"> Clients Consultants Contract managers Project managers Tender managers Project directors 	<p>Including parties</p> <ul style="list-style-type: none"> Evaluation committee Clients Consultants Tender managers Project managers Project directors Contract managers 	<p>Including Parties</p> <ul style="list-style-type: none"> Clients Contractor Consultants Project directors Contract managers Project manager 	<p>Including Parties</p> <ul style="list-style-type: none"> Clients Contractor Consultants Project directors Contract managers Project manager
<p>Final Deliverable 2</p> <ul style="list-style-type: none"> Project parties' understanding of the procurement method (BVP) 	<p>Final Deliverable</p> <ul style="list-style-type: none"> Establishment of RFP (request for procurement) document. Contains information about how every BVP step should be implemented 	<p>Final Deliverable</p> <ul style="list-style-type: none"> A qualified contractor is selected 	<p>Final Deliverable 6</p> <ul style="list-style-type: none"> Contract agreement (between client – contractor) (Lesjo et al., July 2019) 	<p>Final Deliverable</p> <ul style="list-style-type: none"> Successful project implementation

Table 6.4 BVP alternative framework

Based on Table 6.4, there are some points (highlighted with green colour) indicating all the necessary modifications or added points in the alternative framework. Therefore, the following points explain what alterations were introduced, to establish the BVP alternative framework:

1. **Stage 0 (called as training session)** has been introduced. Currently, it has been noticed that training sessions, project's specifications and filtering contractors' criteria are taking place in one stage. To avoid that huge workload, with multiple activities and elements, it is advised to separate the training sessions in a different stage (before pre-qualification starts). In that way, a better understanding of the BVP has been achieved.
2. Besides the identification of the purpose of each stage, in the beginning, it is necessary to emphasize the **final deliverable** in the end of each stage as well. In that case, it could be easily recognized what deliverables are expected to be gained since the stage has been completed.
3. At the selection stage, interviews are playing an important role in contractors' evaluation process. It has been witnessed that **interviews should be part of the evaluation process** and not a separate procedure. The number of interviews depends on the scale, size and complexity of the project. Additionally, during the interviews, the **project or contract managers assess** the contractors based on their **risk management and value-added plans**.
4. **Consultants and tender managers** play an important role in the selection stage. They provide useful tips and advice to the evaluation committee (or client) on how an unbiased and fair judgement should be held.
5. Moreover, once the selection phase finishes, the **evaluation committee (or client) chooses only one contractor** to move forward to the next stage. The selection of more than one contractor is not acceptable.
6. The **contract agreement**, between client & contractor, should be placed **as a final deliverable** of the clarification stage. In the current implementation of BVP, it was positioned as an initial purpose of the stage.
7. What is more, at the clarification phase, it is advisable to **avoid establishing alterations in the project specifications and maximum price (over the BVP process)**. That provides stability and non-discrimination among the rejected candidates.
8. At the **execution phase**, an emphasis is given through the submission of two important documents; **an official report and a weekly report**. These two reports are provided by the contractor to the client. The first report, contains information about the potential deviations or modifications within the project plan. Every single modification is detail explained in twenty pages. On contrary, the second report includes information about the working progress on a weekly basis, for example the number of completed tasks.
9. Furthermore, the **execution phase** mentions the necessity of **collaboration between client and contractor**. Once a problem or difficulty emerges, both client and contractor should cooperate and act immediately to find a solution.

6.4 Conclusions

The goal of that chapter was to answer clearly the fourth sub-question: *“What measures are needed to improve the implementation of BVP?”* With a help of the BVP experts, adjustments towards BVP phases have been introduced.

- ◁ In the **pre-qualification stage**, it has been witnessed that the pre-qualification should be mandatory, within BVP process. That necessity actually derives from certain key factors. Market non-maturity, complexity of the project, and contractors' filtering process introduce the pre-qualification phase imperative. Moreover, the total number of submitted participants should be

restricted, when a large/complex project is executed. That offers a better coordination and management of the received bids, reducing the total workload.

- ◁ In the **selection stage**, a consultation (from consultants) about whether the BVP process is applied sufficiently is required. Simultaneously, interviews should be held in order to understand better the expertise of the contractors. The number of interviews is related to the project size and complexity. Lastly, the number of qualified contractors, once the stage finishes, should be **only** one.
- ◁ In the **clarification stage**, a consultation (from consultants) about if the BVP process is applied sufficiently is needed again. Meanwhile, negotiations between clients – contractors, discussing the important key factors, are taking place. The topic of discussion should be concentrated around the specifications and maximum price. Over the process, those two factors (maximum price and specifications) are usually changed. That literally provides changes and alterations within contractor's plans (either at clarification or execution stage). Moreover, risks, derived from third parties (rejected contractors), are exposed through the qualified contractor. In that case, the contractor is tested whether he is able to tackle and mitigate every potential risk.
- ◁ In the **execution stage**, the leadership is transferred to the contractor's side. The contractor is liable for executing their job, related to their plans and methods. Though the contractor takes over the whole process right now, he is liable to inform and keep the client updated about the working progress and potential alterations or deviations on their plans. An official report is given by explaining the reasons why a potential deviation of the plan is taking place. When a deviation occurs, it is necessary to detail explained in twenty pages. On contrary, the working progress is provided in a report on a weekly basis. Lastly, collaboration between client and contractor is necessary in order to confront successfully any unprecedented event.

The above-mentioned recommendations of the BVP, should be implemented as the foundation of the alternative BVP framework. The establishment of this framework would provide all the necessary components, influencing successfully the final project delivery.

7. Discussion

This chapter tries to explain and interpret the meaning of the findings in relation to the research questions. Section 7.1 the most important findings, connected directly to the research questions, are presented. Next, in Section 7.2 a description of the research constraints and limitations is displayed. Finally, Section 7.3 describes the scientific contribution of the research.

7.1 Interpretation

Through the research, a delve into the implementation of the Best Value Procurement (BVP) within different market industries took place. The necessity and importance of the BVP are concluded from lack of collaboration among participants, leading to project failures (Ey & Han, 2014). The theoretical side of BVP captures significant data, however certain downsides and challenges, that are result from a large number of activities and elements, do not secure project success yet. For that reason, exploratory interviews attempted to enlighten the missing pieces of the existing literature concerning the incompetency of the BVP to deliver successful project results. This research promotes information about BVP differences and similarities, from the comparison of theory & practice, and some measures (or adjustments) to improve the BVP implementation are proposed.

7.1.1. BVP practical perspectives

Several parties were participating in exploratory interviews discussing about their experiences of applying the BVP in their projects. A total number of seven interviewees was selected based on certain criteria and requirements—that were mostly concluded from the literature findings. Explicit data and information regarding the BVP aspects and features of projects were discussed. Even though the majority of viewpoints were pretty much similar to what the literature refers to, some key differences were noticeable.

Number of selected contractors

Since the selection stage has been completed, the client has to choose only one contractor to be qualified in the clarification stage. Nevertheless, through interviews it has been witnessed that occasionally, under certain circumstances, more than one contractor could be chosen. When a huge workload has to be implemented in a large timespan, more than one contractor might execute much efficiently the amount of tasks. That contradiction discloses an interesting point, in which the existing literature and exploratory interviews found a mismatch. A closer look has to be given in order to understand why that discrepancy occurs.

BVP type of projects

Meanwhile, the utilization of BVP in multiple projects (e.g. no matter their size, complexity) is also a contradicting issue. According to the exploratory interviews, it has been noticed that BVP could be successfully applied in any kind of project (small, medium, large). More specifically, the successfulness of the method is highly recognizable, particularly in complex projects, where high complexity, uncertainty and big interfaces happen. Even though the literature review generally agrees on the effectiveness of BVP in every kind of project, in sustainable projects the BVP has turned out to be an unreliable method to deliver successful results (Bruno et al., 2018). That contradiction is an interesting remark for which further investigation is required.

Limitation on submitted participants

At the pre-qualification phase, a collection of several participants has taken place. The number of total participants depends on the scale and magnitude of the project. According to the exploratory interviews, it has been noticed that a restriction in total participants is usually applied. Additionally, the maximum number of participants is limited to twelve. That actually could be modified by looking at project size, complexity, and leading to even more limited number of participants. However, that limitation (in the number of participants) is not mentioned in the existing literature. That difference should be discussed further and explore its potential roots.

Based on those statements (number of qualified contractors, type of BVP projects and submitted participants limitation), interviews with experts were carried out. The BVP experts attempt to verify and search where those issues emerged from. Although only three experts participated in the research, this limited number compared to the total number of interviewees does not restrict the evaluation. It seems reasonable to incorporate a small number of experts to verify and validate the findings since their contribution is restricted on that.

7.2 Limitations

In this section, research limitations are presented.

Scope

As mentioned in Paragraph 2.1.1, the research scope is focused on the implementation of the BVP and the investigation of how the method could deliver a successful project results. The main limitation of the scope is the depth of the investigation. Even though project success is a worldwide issue and everybody is looking for methods to achieve it, the research is going around the Dutch territory. Therefore, the data collection, particularly during the exploratory interviews, is coming explicitly from the Dutch market industry.

Number of interviewees

A significant part of the research is covered by the exploratory interviews. The interviewees were selected under certain criteria and requirements coming from the literature findings. Interviewees were originated actually from consultancy firms and public organizations. In total, the number of interviewees was restricted to seven. That actually happens since all valuable data were collected and more interviewees might provoke data saturation (by getting similar answers).

Experts perspectives

Together with the exploratory interviews, which contribution on understanding the BVP practical implementation was necessary, the interviews with BVP experts have also a significant influence on the research. Their contribution is highly remarkable since their advice has an impact on the creation of the BVP alternative framework. However, with a limited number of experts (sharing their views) it could be difficult to obtain an unique BVP alternative framework. Therefore, one or more additional experts could provide more reliability to the validation process.

7.3 Scientific contribution

Multiple comparative studies, both in national and international level, have been carried out on the BVP concept and its implementation through market industry. These studies usually explore either a single BVP case and its implications (Tran et al., 2017) or multiple cases and their outcomes (emphasizing the negative side) through clients and contractors (Lesjø et al., July 2019) (Wondimu et

al., 2020). Additionally, a focus on the BVP steps and factors, influencing the method's successful implementation has been widely discussed in the above-mentioned studies.

Moreover, a few comparative studies proposing the positive and negative points of BVP approach have been conducted at the past. However, to date, there was not an available alternative BVP framework that could directly address the problematic aspects of the method, and actually improve it. Therefore, according to that aspect (alternative BVP approach), this study finds its roots. This research contributes scientifically to the existing literature in two areas. First, a BVP analysis, coming from theory and practice, has revealed all the necessary elements and activities in which proper attention is needed. Second, since the acknowledgement of differences, between theory and practice is being presented, an alternative BVP framework was proposed. This framework was evaluated by the BVP experts. As a result, the new BVP alternative framework was proposed to improve the BVP process.

8. Conclusions and Recommendations

This chapter aims to address the research questions and give recommendations. More specifically, in Section 8.1 all the research questions are described and Section 8.2 presents the recommendations, for both practice and future.

8.1 Conclusions

Project success is the ultimate goal for every project. However, budget overruns, time exceedance and low performance are often announced (Javed & Pan, 2018). Best Value Procurement is characterized as a procurement method focuses to project success by taking into account multiple factors, for instance complexity and collaboration (Ey & Han, 2014). Nevertheless, project success is not easily achieved. The goal of the research was to explore how BVP could be applied and benefit the project delivery. Four sub-questions and main question have been addressed to reach that goal.

8.1.1. Answers to the sub-questions

The first sub-question was: “*What can BVP offer in theoretical perspective to the public clients?*” The literature review covers the theoretical side of the BVP and provides useful insights on how BVP is perceived in theory. Public clients, taking usually the initiative to launch a project, have a critical role during the BVP implementation (Santema, 2016). The major responsibility of public clients is to search for the best contractor, to execute the job. That happens when a series of steps have been completed. Based on the literature review, BVP is divided into four discrete phases: pre-qualification, selection, clarification, execution.

- ◁ In the [pre-qualification stage](#), a consultancy firm is applied in order to train all parties, particularly clients and contractors, about the BVP philosophy and principles. In the meantime, a filtering process is happening to distinguish which contractors’ profiles are suitable for the project. Every important element, for instance project specifications or filtering criteria, is designated by contract managers and client.
- ◁ In the [selection stage](#), an evaluation committee (or client) assesses contractors’ suitability by applying certain awarded criteria (both price and non-price). An impartial and fair assessment is taking place. Moreover, interviews conducted by either contract or project manager, are used to identify even better contractors’ expertise. Lastly, the main objective of the selection phase is to choose the best contractor.
- ◁ In the [clarification stage](#), the qualified contractor is responsible to substantiate their plans and methods, to the client. The contractor has to apply their expertise and knowledge in order to prove that their assumptions can operate sufficiently, delivering a successful result. Negotiations, between client & contractor might be included to discuss how roles & responsibilities are distributed. Additionally, potential modifications on specifications and maximum price might be considered as well. Lastly, contractor is evaluated not only from their own risks but also from risks coming from the disqualified contractors
- ◁ In the [execution stage](#), the qualified contractor takes over the project implementation. The contractor has to execute their methods and plans on site. Also, he is responsible for informing the client about the working progress and the possible changes/modifications that are happening during the process, justifying them properly. Considering the potential additional costs and resources consumption, the official report has to be handled really carefully.

Therefore, what actually the BVP offers to the public clients, is the organised and sufficient way of choosing the most adequate contractor, unbiased and fairly under certain awarded criteria.

The second sub-question, “*How is BVP implemented in practice?*” was answered by interviewing seven professionals, regarding the practical implementation of the BVP. Following the BVP phases, a clear demonstration of elements, factors and activities, that were identified through the interviews, were displayed. The main observations are stated in the following bullets.

- ◁ In the **pre-qualification stage**, a consultancy firm is used (as happening in theory too) for teaching all parties, especially clients and contractors, about BVP philosophy, principles and values. Meantime, a filtering of contractors’ attitudes (profiles) takes place. Simultaneously though, a restriction of the submitted participants is related to the size, duration and magnitude of the project. The maximum number of participants is twelve.
- ◁ In the **selection stage**, consultants are getting involved, in order to check if the BVP process is implemented sufficiently or intervention is needed to fix problems. Simultaneously, client has to choose among several participants the best contractor to execute the project. That selection depends on multiple criteria, considering not only price but also non-price criteria. Additionally, once the first part of evaluation process finishes, based on the price and non-price criteria, interviews are coming to further evaluate the contractors. Project or contract managers conduct the interviews, focus mostly on evaluating contractors’ expertise. The number of interviews depends on the project size (small, medium, large). Traditionally, in the end of the stage only one contractor is selected by client. However, sometimes, depending on the project’s peculiarities, more than one contractor might be selected.
- ◁ In the **clarification stage**, consultants are getting involved, in order to check whether the BVP process is implemented sufficiently or actions are required to solve potential issues. Additionally, the contractor takes the lead and substantiate/prove their plans on ground in order to get the client’s confirmation of having the contract. Moreover, negotiations and discussions around the distribution of roles, responsibilities and tasks, especially on contractor’s side are applied.
- ◁ In the **execution stage**, the qualified contractor executes their plans on-site. Additionally, consultants are involved to check if everything is implemented adequately or solutions are needed to potential issues.

The third sub-question, “*What is the difference between the theoretical – practical side of BVP?*” is answered by establishing a comparison between the findings from both theory and practice. The table below illustrates what differences have emerged between theory and practice:

BVP steps	Findings of differences	Theory	Practice
Pre-qualification	Limitations in the total number of participants	No	Yes, depending on the project scale
Selection	Division of contractors' awarded criteria	Yes (primary & secondary)	No
	Consultation process	No	Yes
	Number of qualified contractors	1	1, sometimes also 4
Clarification	Modifications on price & specifications	Yes	No
	Consultation process	No	Yes
	External risks (third parties) on contractors' evaluation process	Yes	No
Execution	Official Report	Yes	No

Table 8.1 An analysis of the differences between theory & practice

Based on Table 8.1, it can be observed that the practical implementation of the BVP is slightly different from the theory. The variations, of both perspectives, and the examination of whether they are efficient or not, grant valuable insights and lead to the next research question, the measures (or adjustments) needed to improve the BVP.

Finally the fourth sub-question, “What measures are needed to improve the implementation of BVP?” focuses on providing explicit advice (and/or measures) in order to ameliorate the BVP usage in market industries. Mostly, the BVP improvement is related to the differences, that was mentioned in the third sub-question, between theory & practice. According to that, BVP experts were considered important to verify and validate the measures or adjustments to improve the BVP process. Therefore, using the BVP phases it can be concluded that:

- ◁ In the [pre-qualification stage](#), it has been noticed that a limitation in the total number of participants is required, when a large/complex project is applied. In that case, a sufficient management of limited number of candidates could happen, reducing the total workload (when too many bids are submitted). Additional, the pre-qualification stage should be mandatory, in case of non-maturity markets, project complexity and contractors' filtering process.
- ◁ In the [selection stage](#), a consultation (from consultants) about whether the BVP process is applied sufficiently is required. Mostly, consultants step in the process, and use their experience and knowledge, when a difficulty or problem appears. Meanwhile, interviews would be held in order to understand better the expertise of the contractors, the number of interviews varies, depending on the project size and complexity. Lastly, the number of qualified contractors, once the stage finishes, should be [only](#) one.
- ◁ In the [clarification stage](#), constant consultation (from consultants) about whether the BVP process is applied sufficiently is needed again. Meanwhile, negotiations between clients – contactors, discussing the important key factors, are taking place. The topic of discussion should be concentrated around the specifications and maximum price. Over the process, those two factors (maximum price and specifications) usually are changed. That actually provides changes and alterations within contractor's plans, either at clarification or execution stage. Moreover, risks,

derived from third parties, called also as disqualified contractors, are exposed through the qualified contractor. In that case, the contractor is tested whether he is able to tackle and mitigate the risks.

- ◁ In the **execution stage**, the leadership is transferred to the contractor's side. The contractor is responsible for executing their job, according to their plans and methods. Even though the contractor takes over the whole process right now, he is liable to inform and keep the client updated about the working progress and possible modifications or deviations on their plans. An official report is provided by explaining the reasons why a potential deviation of the plan is taking place. When a deviation occurs, it is necessary to detail explained in twenty pages. On the other hand, the working progress is provided in a report on a weekly basis. Lastly, collaboration between client and contractor is necessary in order to confront successfully any unprecedented event.

8.1.2. Answer to the main research question

The above-mentioned answers to the sub-questions eventually provide the answer to the main research question:

“How could public organizations implement Best Value Procurement (BVP) to benefit the project delivery?”

The major advantage of the Best Value Procurement is the focus on market parties' performance rather than price, within the contractors' evaluation process. In other words, a certain attention is given through the long-term performance of contractors instead of getting the lowest price offer (Tran et al., 2017). Since the public organisations frequently express an interest on applying BVP at their projects, it is necessary to use BVP in a successful way. Therefore, the research introduced an alternative BVP framework, which covers a large number of elements, activities, including parties and final deliverables. The highlight points of the alternative BVP framework are:

- ◁ **Stage 0 (called as training session stage)**. Educated the project parties about BVP philosophy (principles, values) should be carried out before the actual process begins, describing specifications, contractors evaluation etc.
- ◁ **Final deliverable** description, in the end of every BVP stage. It is important to describe precisely what outputs each stage provides to the entire process.
- ◁ **Clients & contractors relationship**. Even though contractor takes over the leadership of the execution stage, client should remain closely to the contractor when a difficult situation emerge. Immediate action and collaboration ensure better problem confrontation.

8.2 Recommendations

Several recommendations points, covering both the application of BVP in practice and the future research are addressed.

8.2.1. Recommendations for practice

- ◁ Several interviewees referred to training sessions as one of the BVP success factors. Training sessions bring the BVP philosophy, among the participants, emphasizing more into its values and principles. At the alternative BVP framework, a special emphasis was given through the training sessions, since a separate stage was introduced (stage 0). Therefore, it is advisable for organisations to pay attention in training sessions, when BVP is used.
- ◁ During the interviews, it has been noticed that BVP needs the help of the consultants in order to execute properly the method. Since lack of knowledge becomes a detrimental factor for

BVP successfulness, it is desirable for every organisation to incorporate consultants, as an external partner, to share their knowledge within the entire BVP process.

8.2.2. Recommendations for future research

- ◁ A significant part of the research was devoted in data gathering from literature and interviews and comparison of those perspectives. Therefore, it would be interesting to execute a comparative research in different countries (outside the Dutch market) in order to investigate whether the BVP results (from theory and practice) are similar or not.
- ◁ In the research, a focus is attributed to select as interviewees, people coming from public organisations and consultancy firms. That choice was based on the literature findings, mentioned in Paragraph 3.2.3. However, contractors, as key players of the construction process, were not involved. Meanwhile, the necessity of the contractors opinion, within the BVP process, becomes even more important considering the fact that limited reference is included in the existing literature. Therefore, contractors' involvement in the future research, according to the BVP concept, is suggested.

9. Reflection

After spending a significant time for delivering a successful research result, it is necessary to establish a chapter where a personal reflection is addressed. Having acquired a civil engineering background, I was focused and specialized more in both technical and numerical side of infrastructures (how to create robust, durable structures over a certain lifespan). However, my active involvement in managerial and contract subjects has actually triggered my interest on exploring the procurement field. Additionally, since the procurement system has a predominant role in project success, an extra motivation has emerged. My thesis topic revolves around a specific type of procurement (BVP) exploring its implementation throughout the market industry.

Starting a proper investigation of BVP's importance across industry, I figured out that several components influence its implementation as well as success over the years. Together with my investigation, I was trying to form a committee, which interest about the potentials of my research was clear. Considering the large number of master students, searching for committee and the huge workload of professors, the pursuit of committee became even more difficult. However, once my committee was fulfilled, a more "deep" focus on the research was given.

The meetings (with my committee) during the research were pretty much inspirational and fruitful at certain point. An interesting point, within the process, was the replacement and embodiment of a new committee member in the middle of the research. That situation was actually really challenging and critical because structural adjustments and modifications regarding to the new supervisors have to be established.

From a practical point of view, the research had a well-defined methodology and deliverables. Having interviewees (talking about their experience for BVP on practical side) was a valuable input for my results. However, "running" simultaneously interviews and the literature study was a critical mistake. More specifically, improper preparation of developing sufficient questions for interviews combining with a limited knowledge (on conducting interviews) had a tremendous impact on the data collection. That initial mistake was managed precisely and accurate findings were collected in the end.

Moreover, an interesting part of the research was the establishment of a new alternative BVP framework. At that point, I realized how important is to define/describe factors, elements which significance are actually remarkable (for a new framework). Regarding the BVP experts, whose contribution on designating the new framework was critical, it might be a better idea to include them, within process, quite earlier and not in the last months. In that way, less anxiety and stress to complete the report could have been achieved.

Taking into account the entire process of the research, I had an important opportunity to challenge myself through an interesting topic. I strongly believe that my intellectual skills and capabilities were improved at high extent (delivering a sufficient research output).

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11. Appendices

- Appendix A: Interview Protocol
- Appendix B: Exploratory Interviews
- Appendix C: Experts Interviews
- Appendix D: Current BVP implementation

12. Appendix A – Interview Protocol

Interview # _____
Date _____ / _____ / _____

Interview Protocol

Script

My name is Kyriakos Kyrizakis and I am a Civil Engineer graduated from Democritus University of Thrace, Greece. Living in the Netherlands, I started doing a master in Construction Management and Engineering at TU Delft. Having engaged in the engineering field, I have thought of being actively involved in procurement ways and how potentially every single project would be successful for the entire society. The goal of this study is to grow understanding of how BVP should accomplish a successful result in the public domain (keep in track with all project drivers).

Thank you for being part of the master thesis and particularly in the interview process (followed by nine questions regarding your experience and familiarity with Best Value Procurement over the years). The total duration will take approximately 60 minutes.

Taking into account the educational purpose of this master thesis, I would like to remind you of your written consent to take part in this research. I am the liable investigator, addressing your participation in the research project: Searching for BVP's successful implementation looking at the public domain territory. You and I have signed each copy, getting an agreement to continue this interview. You will obtain one copy and I will keep the other for educational purposes (separate from your responses). All of your answers are private. Every answer will be treated with a sense of duty and trustworthiness and will be implemented to enlarge a better understanding of how Best Value practices could benefit communities by serving an astonishing (successful) project outcome.

I would like to give me your permission to tape record this interview, so I might have the opportunity to precisely document every information later on. If at any time during the interview you feel uncomfortable wishing a "recording termination", please feel free to let me know immediately. You might also abandon the interview without any warning anytime. Do you have any further questions before we officially start? Then, with your agreement we will launch the interview session.

Demographic Questions

Introduction

Before getting deeper to the "core" of the interview, it's necessary to start asking questions about interviewee's background as well as field of working environment. Then, a slow and incremental confidence and trust is achieved between interviewer – interviewee.

1. What's the discipline of your working environment? (check response):

- Consultancy Firm
- Public Client Organisation
- Private Organisation Firm
- Social Housing Association
- Multiple Roles

Ÿ Other (specify): _____

2. During your professional career, how many years had you been involved in the procurement stage? (fill in):

_____ years

Main Questions

It is expected from each participant to demonstrate accurately their viewpoints about BVP's effectiveness and where it can be applied successfully. Additionally, a focus is given on whether public domain is willing to adopt BVP and if further improvements are needed (related to BVP implementation).

3. Thinking about evidence that shows projects rarely completed under a specific timetable (Assaf & Al-Hejji, 2006). That brings "instability" leading to project non-successfulness (common especially in the construction industry) (Catalano et al., 2019). Tell me what makes a project successful and why (or why not) this "problematic" situation (non-successfulness) still happens. (Ask for clarification if a misunderstanding happens).

4. Thinking about the procurement stage. It has significantly appeared as a technique of tracking down everything that should be addressed beforehand (for instance roles, tasks or authorities). Best Value Procurement indicates a new "start" of procuring projects focus mainly on the construction industry (however not neglecting other industries). What's the BVP's "contribution" in project success? Please give examples for supporting your arguments.

5. It is expected that interviewees would represent firstly the reasons behind projects "non-successfulness" and how procurement method should be determined as a "catalyst" for reversing that situation (project failure).

6. Thinking about the Best Value Procurement itself. Tell me about how many times have you been involved in that method? In what kind of projects have you applied BVP for? Please provide some adequate background information of choosing BVP instead of other methods (especially looking through the project size).

7. Looking back to your foregoing answers (question 5), what's your experience by utilizing BVP as a relatively new procurement method so far? Please explain your answer by sharing your moments working under BVP principles.

8. Taking into account your previous answers, why (or why not) Best Value Procurement should be determined as a good idea for project success? Could you please elaborate on your answer a bit more (by indicating ways of making BVP a successful tool)?

9. Considering the fact that BVP was introduced quite recently (approximately 1.5 decade ago) in the Dutch market, there are contradicting views (particularly from clients perspective) whether BVP's adoption looks beneficial or not. Tell me about the current situation in the Dutch industry.

Are clients (either public or private) willing (or enthusiastic) on applying for Best Value Procurement in the Netherlands? (List responses by looking at positive or negative public reactions, and reasons why).

10. Now thinking about your expertise in the Best Value Procurement field. Tell me about any kind of improvements that have been noticed in the construction industry so far (by using BVP) and ways of “reversing” (or alleviate) negative features of BVP. Additionally, in comparison with former procurement methods, what type of “developments” are attributed to BVP? Please explain and elaborate more by using your knowledge and experience in the procurement field.

Closing remarks

Thank you very much for being with me today carrying out this excellent interview. Your time is really much appreciated and your answers have been absolutely helpful.

The interviewees are selected based on their knowledge and years of experience in procurement stage (especially in BVP background). It will give an extra help and advantage for the research to exploit every single detail from BVP by knowing information “on the spot”.

The findings of this interview will be gathered as a source of data and information of people actively involved in the BVP field. By using a network of different references (including also interviews) a sufficient data selection will be achieved following by a method analysis, known as Q-methodology. Focusing entirely on the qualitative approach (of interviews), the method enables the users to understand (by using statistical metrics) how many participants have a clear tendency (or not) on adopting BVP principles in their work (offering an indication on how project success keeps up with their project drivers).

11. Before we terminate our interview, is there anything else you would like to add or share?

***** If interviewee wishes to withdraw study, ask if they would be eager to share why:**

13. Appendix B – Exploratory Interviews

In that Appendix, the following points are covered:

- Ø Appendix B1: Strategic purchasing advisor a.i. & A+ Best Value Advisor
- Ø Appendix B2: Tender Manager
- Ø Appendix B3: Director
- Ø Appendix B4: Senior Consultant & Best Value Advisor
- Ø Appendix B5: Senior Advisor
- Ø Appendix B6: Project Director
- Ø Appendix B7: Contract Manager

Interview B1

Date of Interview: 07 July 2022

Name of Interviewee: Mat Wijlaars

Field of Work: Strategic purchasing advisor a.i. & A+ Best Value Advisor

Type of Organization: Consultancy Firm

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

Using the traditional way, the client (buyer) wants to give advices and instructions to the contractor (supplier) of how the project needs to be executed. Everything that includes project's methods and techniques is offered from the client to contractor. However, that situation gives a limited or none freedom to contractor on applying their expertise and plans within project boundaries. Without a doubt, client's "dominance" over the project's realization brings undesirable results and conflicts. For example, IT projects in the Netherlands reports 95% of failure. That explains a lot why, by using the traditional path, projects struggling enough to keep up with certain budget and quality standards. For that reason, whoever wants to apply the traditional way in IT project, I highly recommended to avoid it by utilizing another procuring way, such as Best Value Procurement. Having applied BVP in 4 IT projects yet, I have noticed that all projects had excellent results within budget constraints and time frame. In fact, client's expectations and general satisfaction was achieved in 100%. In that case, as Dean Kashiwagi explains, it's essential from clients to use their ignorance and gives more freedom and space to contractor. That's a principal of BVP (Best Value Procurement) which facilitates and encourages contractor's active participation in project's successfulness

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What's the "contribution" of BVP in project's success?

Answer

As I mentioned before, BVP tries to incorporate contractor's expertise ending up in a beneficial project output. Their knowledge and experience improves radically project's situation by offering optimal solutions and ideas in accordance with project's peculiarities. In that way, client's "withdrawal" of being leader makes contractor accountable for providing a best result with risks minimization. And this is why BVP has a sense of "independence" and contractor could contribute their maximum once client "step back" for their decisions. Therefore, since contractor has enough freedom on applying their ideas and methods through a project, good results have been gradually increased.

Question 3:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

At the moment, I have engaged in 13 projects using Best Value Procurement as the main procurement method. The customer satisfaction was 9.0/10.0, which means that almost every requirement from clients were reached at high extent. In that success, a major role was attributed to my journey in the United States Of America. A best value congress held on Phoenix which gave me a great opportunity to meet and discuss with the founder of BVP, Dean T. Kashiwagi.

Talking about now the situation (of adopting BVP), it's relatively stabilized. Since BVP has introduced in the Netherlands in 2009, a lot of modifications have taken place. Even though, in the beginning more and more organisations showed a slightly interest on applying BVP in their projects, the last 2-3 years the eagerness reduced. Lack of trust and adherence on "old-fashioned" procurement styles (such as traditional) among participants establish a working environment with limited development and fear of change. Everyone believes that he has all the required knowledge and expertise being the project leader. Their skills and experience has be thought sufficient enough on dealing with problems. That literally appears especially in organisations (public) which employed "old" generation employees (hesitate on adopting different ideas and steering on "outdated" techniques).

Question 4:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of "developments" have been noticed in contrast with the former procurement methods?

Answer

Best Value Procurement is a newly developed procurement method. The consultant role (as me) has focused on teaching or training precisely every participant (especially client and contractor). It's quite necessary to make everyone aware of project's objectives, goals and targets in order to guarantee a continuity and ultimately successful result. Another point worth mentioning is that training doesn't stop but it's an ongoing process throughout procurement phase. Normally, training is used during the

selection and most importantly on clarification phase. Both clients and contractors should move in the same direction knowing exactly what objectives needs to be achieved. Since everyone in organisation being totally aware of their tasks, liabilities and responsibilities, a promising beneficial result could be accomplished (without any conflicts, disputes and misunderstandings) That's a special improvement that BVP adds within construction industry at all.

Interview B2

Date of Interview: 14 July 2022

Name of Interviewee: Dirk Zuiderveld

Field of Work: Tender Manager

Type of Organization: Consultancy Firm

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

Working as a tender manager in buildings industry (especially looking into the maintenance or operational phase), I have to admit that projects failure is highly related to their context itself. It's a common issue that projects have a tendency to be treated equally. In other words, even though every project has clearly different ambitions, objectives and goals, project managers (with a vital role) provide a framework of strategies and policies similar with other types of projects (irrespectively of their sizes or interfaces, complexity etc). As a result of this, a misunderstanding and false interpretation of reality, brings undesirable results and problems throughout the project. Additionally, best value procurement principles and methods couldn't be applied in those project due to the incorrect understanding of BVP values. That "combination" (of "wrong" project realization and non – comprehensive knowledge of BVP) leads to project failure.

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What's the "contribution" of BVP in project's success?

Answer

Even if I am not the best "expert" guy in the BVP field, I have applied procurement standards and particularly BVP in plenty of works. Best Value Procurement gives a sense of searching for project success by looking not only at lowest-price but also in other useful parameters such as past experience and technical merits. It's really important to distinguish and find out which contractor has the special ability to execute the job in accordance with certain standards (for example specifications and requirements). For instance, I was engaged in a maintenance project of buildings and I had a suggestion to propose a contract with four contractors (instead of one, which is the most typical way). Having known that 12 candidates would be gathered in the prequalification phase, by using the "reduction method", the total number of contractors was restricted into 4. Afterwards, the strategy was clear; the 10,000 houses would be divided into 4 regions (once per contractor). The entire policy was to deliver renovated ideas and maintenance plan for the 10,000 in 6 years. That's the main reason why 4 contractors have ultimately been selected to handle and execute this goal. Therefore, I strongly believe that BVP offers the chance (regardless its standards and principles) to achieve goals and success by incorporating multiple actors in one contract.

Question 3:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

At the moment, I have applied BVP (pure form) two times. The first project was about a maintenance plan of buildings approximately 50 million euros/year for six years in total. The second project was about a management policy of buildings for almost 100 million euros (looking actually in project process and how BVP had to be ultimately applied in that case). The results were pretty much sufficient and everyone was satisfied and happy for the final deliverable. In my territory (social housing), it's much easier for clients to accept BVP as a newly procurement method. They realize that its effectiveness and adequacy comes from all the steps (pre-qualifications, selection, clarification and execution). More specifically, the entire focus is given to clarification stage, where the qualified contractors have the "obligation" to show up how everything that have been proposed would be achieved and proved in real-time conditions (guaranteed safety and reliability within project actors). That literally instigates clients to "adopt" the BVP idea within social housing industry

Question 4:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of "developments" have been noticed in contrast with the former procurement methods?

Answer

As I mentioned before, I can't be proclaimed as "expert" in BVP, but I used it since its implementation and execution provides multiple options and possibilities of final success. By collaborating with different personalities and characters in relatively complex projects (depends on their size and interfaces within actors), it's matter of time to provoke conflicts and mistrust. However, Best Value Procurement tries to insert "space" for trust and collaboration between parties. I was referring before in a project with 4 contractors in one contract. It was really necessary to make sure that everyone should be in the same page with others. Nobody had "special treatment" or leadership throughout their collaboration. Equality and common goals were two of the most essential elements to deliver an adequate result ending up with public satisfaction (in that case, residents in the dwellings). "No" personal interest has been emerged in order to guarantee a successful result. As a result, I believe that BVP has "captured" the meaning of success rather than the other procurement system (for instance, traditional method). And that happens by investing in trust and expertise knowledge.

Interview B3

Date of Interview: 15 July 2022

Name of Interviewee: Sicco Santema

Field of Work: Director

Type of Organization: Consultancy Firm

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

I believe that project failure has several parameters to take into account. As you said, every project confront different issues to deal with regardless of price, time and quality. Mostly, an inexperienced personnel (talking about project managers or directors) using a wrong decision making strategy leads to an undesirable result. If you didn't have an adequate number (years) of experience in construction industry, it's absolutely logical to have a limited "predictability" of possible risky events in the project. By observing and encountering what type of problems could be a "threat" in project's realization, makes the final deliverable and the entire project itself relatively manageable. However, if "experience" factor is missing to a large extent, significant issues would emerge leading to a non-successful result.

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What's the "contribution" of BVP in project's success?

Answer

Without a doubt, procurement system has been seen as one of the choices in order to "reverse" the unsuccessful project situation. BVP (as type of procurement) becomes an extraordinary tool for procuring directors to "navigate" a project in a correct path. Training sessions and education meetings are held on to induce "the philosophy" of BVP and aspiring contractors to be engaged into that world. Those two factors have actively involved contractors (suppliers) in project expectations (by explaining in details how the BVP tool could be used and under what circumstances). In such way, project success is slightly consolidated and contractors acquire all the knowledge and guidance to build their proposals respectively. However, a training session doesn't imply instructions or techniques to "educate" contractors of how to formulate their expertise. Suppliers expertise is something unique and it doesn't need to be "transferred" by training meetings. A contractor knows actually which core competencies and what policies are required to solve a problem.

Question 3:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

In my entire career, I have applied BVP in 250 times yet. And even though the number appears quite high, I can admit that during those projects I didn't notice any issue or problem leads to a "dangerous" situation. From clients perspective, Best Value Procurements looks as a promising tool to introduce it their projects. For instance, Rijkswaterstaat has already used BVP in many cases with pretty much sufficient results. Although, public bodies (with an initiator role) has expressed an inclination of changing the context and not the content of BVP. That literally happens in order to adjust BVP process (by including or not important elements from it) within organisation's standards and interests. In other words, companies achieve an "ineffective" way of working by modifying every time BVP layout (and as a result the procuring method) but not the contractors expertise.

Question 4:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of "developments" have been noticed in contrast with the former procurement methods?

Answer

Best Value Procurement is widely popular for using contractor expertise in their procurement method. It's really necessary to create a "strong" partnership between client – contractor in order to secure the optimum result. Since clients have a clearly lack of expertise and knowledge (probably due to their steering on past policies and "old-fashioned" techniques), a special contribution from contractor side is absolutely important. So, contractors expertise and skills reveal as the "missing" piece of puzzle. And that necessity becomes even more vital if you consider the fact that complexity and uncertainty "dominate" the construction industry nowadays (and clear answers to repeatedly issues are needed). Every client is totally "isolated" without any help from suppliers (known as contractors) side. That's the reason why former procurement methods (for instance, traditional or design & construct etc.) have seen incapable to "defend" ongoing issues anymore (complexity etc.). Best Value Procurement has shown a tremendous emphasis on selection and clarification phases. That's a massive improvement in procurement world, where the "best" contractor is evaluated under detailed examination.

Interview B4

Date of Interview: 27 July 2022

Name of Interviewee: Steven Bookelmann

Field of Work: Senior Consultant & Best Value Advisor

Type of Organization: Consultancy Firm

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

From my point of view, I believe that projects are not 100% fail. There are multiple paradigms which are used as an “additional” approval of project success. Simultaneously, however projects usually include extraordinary and unprecedented ambitions ever seen before. That arrives from “innovation” movements and newly ideas and methods in construction industry (or other industries). In order to fulfil those kind of expectations and ambitions require a significant number of people who are capable of managing and using their knowledge and experience as well. For example, the Dutch construction industry is extremely busy and highly demanded. Lots of construction firms targeted to be involved in multiple projects in order to be competitive in industrial market. Despite the fact that, companies accelerate their efforts to be actively engaged in projects, a “limited competency” on allocating equally their personnel in different projects has a detrimental impact on project success. In other words, it’s apparently challenging to handle a huge workload with partly limited staff. Therefore, the project is expected to be a failure influencing the entire public satisfaction.

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What’s the “contribution” of BVP in project’s success?

Answer

Without a doubt, procurement system consists of one of the “powerful” tools to “de-escalate” the expansion of project unsuccessful outputs. By distributing equally and in a fairly manner everything that seemingly influenced a project deliverable (tasks, risks, authorities). You can easily understand and select which actors looks as the most skilful entities to addressing and solving effectively issues that matters a lot. Best Value Procurement has a bright future introducing alternative routes of success. And If I could choose one very distinctive and essential feature of BVP would definitely be “the selection process”. For reaching the best result (in accordance with certain requirements and specifications that a project entails), you need to hire the best team. Of course nobody is perfect, but looking in certain boundaries and context a client has the capability to identify if a contractor (or contractors) has the appropriate characteristics to deliver a successful result.

Question 3:

Why (or why not) Best Value Procurement (BVP) should be considered as a good idea for project success? What makes BVP a successful tool?

Answer

I strongly believe that Best Value Procurement is absolutely a magnificent choice of procuring items/products or projects. It's actually the "mindset" behind the BVP which makes it ideally. A lot of attention is attributed on how a proper contractor would be selected based on a list of criteria. These criteria derived from the necessity of becoming 100% sure that a successful result should be achieved. Using development and innovation as a "start-up" explains where every contractor has a tendency to move forward and what kind of policies should be developed as well. For instance, at pre-qualification phase, a client can request from every bidder to submit in advance a document including legal, financial statements of firm's stability in general. With that move, a client could quickly recognize whether a contractor has liquidity and prosperity or not and thus further proceeded (for the upcoming stages) or rejected. To conclude, I think that BVP's advantage is lying on the careful and detailed examination of contractors profile (ending up with adequate result).

Question 4:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

At the moment, I have been involved in BVP for 15 times (from buyers side). More than 10 years, a lot of attempts are recorded by using Best Value Procurement in the Netherlands (with either positive or negative results). As a professional, I usually try to apply specific "terms or principles" coming from the BVP theory and not the entire method. I am using the Best Value Procurement as an "ideal" process without getting more in depth into difficult terminologies and theories.

Now, looking at clients viewpoints about BVP usage in their business, I believe there is a mix of feelings around it. Plenty of clients have witnessed difficulties by applying BVP in their field. That literally comes from incorrect contractors' approach, acting in more shellfish and "non-best value way". Even though an agreement between client-contractor is achieved (explains how a project would be undertaking under BVP method), the contractor works in complete different way. Though, clients' depression and dissatisfaction makes the BVP implementation impossible or better to say "non-desirable". Therefore, in percentage terms, I could say that clients 70% agree and 30% disagree on using Best Value Procurement in the construction industry or generally in their business field.

Question 5:

In what kind of projects, BVP can be effectively applied? What's your experience by utilizing BVP as a relatively new procurement system in construction industry (for instance looking its influence on simple or complex projects)?

Answer

As I said, I have applied 25 times BVP in my career so far. Depends on its complexity, number of interfaces, participants etc., we have a slightly different philosophy and approach. Working at Municipality of Amersfoort (which is in the centre of the Netherlands), we have a policy on conducting multiple interviews by including also several documents from bidders (for example, risk value

assessment, financial management etc.) in order establish a clear picture of each candidate's background and profile. Until now, I am absolutely sure that either small or middle or even large project have managed regardless of its concept quite sufficiently without any significant problems recorded. Every project (no matter its size, magnitude or interdependency) embodies an expert in project team. So, for example if a project is characterized as small class, an interview session is enough. A client is totally aware of contractor's speciality and knowledge through the topic. However, when complexity and uncertainty are inserted into a project (as vital components to be considered), then a completely different strategy is applied. An interview session is a "starting point" getting touch with each other. The following interviews (unclear how many times requires) give further details about candidates' financial, legal, administrative situation. An additional document is submitted in order to provide more information about risk management policies, value added. That step is used by clients to evaluate whether a bunch of contractors have the "acceptable" expertise or not. If the answer is yes, a contractor is qualified to "next step" in which a detailed explanation of every submitted plan take place.

Question 6:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of "developments" have been noticed in contrast with the former procurement methods?

Answer

Over the years, different types of procurement methods have applied in the Dutch construction industry. Most of them trying to include quality and performance as important elements on selecting contractors process. However, little or no progress have noticed by including quality or performance in projects yet. It's already be known that even if procurement systems (for example traditional system) have expressed their interest in using quality & performance metrics in project success, only Best Value Procurement actually comprises these factors on selecting contractors. It has written down (in document form) that qualified contractors require ways to present quality & performance in their submitted plans. Simultaneously, past performance is an additional component which displays contractors suitability or not. Thus, quality, performance and past performance are factors which demonstrate BVP's superiority and supreme power in contrary with other procurement methods.

Interview B5

Date of Interview: 02 August 2022

Name of Interviewee: Remy van der Vlies

Field of Work: Senior Advisor

Type of Organization: Housing Corporation

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

Generally speaking, the personnel which is responsible for preparing and executing the project is quite incapable of dealing with all the promises (coming from cost, time, and particularly quality elements). In other words, it would be called as “professional inability” to describe precisely the requested quality (or everything that needs to be achieved as well). It seems slightly difficult (from contractors perspective) to demonstrate in accordance with principal’s (client) demands how strategies/policies could be adjusted into low-cost context. More specifically, the combination of “low-cost and quality” is characterized by many (and also from me) as an essential part of delivering a beneficial result.

Furthermore, time limitation and restriction brings an additional “burden” for a successful result. Taking into account the project’s nature (size, complexity, interdependency etc.), considerably time pressure (from clients) makes the project management plan quite “tighter” without any sense of flexibility and freedom. In such case, the contractor hasn’t got enough time to prepare, estimate and ultimately implementing an adequate plan (including every detail and explanation on how a project could be successfully in the end). Therefore to summarize my thoughts, I believe that “low-cost vs quality” and “limited time” have a tremendous impact on project’s situation (either positive or negative).

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What’s the “contribution” of BVP in project’s success?

Answer

As you mentioned, the procurement system is concerned as one of the “components” to tackle projects’ “inability” to keep their promises and characterized successful as well. If you are capable of allocating roles, tasks, risks and responsibilities among participants (as project actors), you definitely create a “first” successful step. The following step is to think about which procurement method has special features and harmonizes perfectly with project’s environmental conditions. Then, Best Value procurement is entered into the “game”. If I had a chance to mention one important advantage of the BVP (as a main “contributor” to project success) is inevitable the “strong” future relationships (between clients – contractors). The “strengthen” ability to build a long-term partnership (investing in trust, reliability and stability) makes a project (or to be more precisely a “bunch” of projects) slightly

successful. Without a doubt, it's essential for a client to establish a very good relationship with contractors in order to facilitate their "indefinite" collaboration in potential future partnership. It's a common truth that clients would like to have "friends" and not "enemies" when a project is finished. And that happens with Best Value Procurement context, driving by mutual respect and ongoing attempt for delivering a desirable output.

Question 3:

Why (or why not) Best Value Procurement (BVP) should be considered as a good idea for project success? What makes BVP a successful tool?

Answer

Best Value Procurement provides an explicit way of reaching a beneficial result. The main advantage of the BVP is the efficiency on selecting contractors to execute a job. The BVP content offers an adequate clarification on how the "best" contractors would be chosen based on project's criteria or requirements (prescribed by a client or consultancy firm). Having introduced a list of criteria, the client announces precisely under which circumstances and ways all "qualified" contractors will be evaluated and inevitably rejected or not. From my perspective, that gives an extra boost for clients or project director (or procurement directors) to be confident for their choices in accordance with certain standards. An "ideal" scenario of completing a project (on time, budget and quality) comes through an effective selection process. And that's the reason why BVP is assumed as an optimal solution for project success.

Question 4:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

Until today, I have been involved in Best Value Procurement three times in total. These projects (or I prefer "programs" to say) were a concept of either apartments maintenance (repairing issues about electricity, water leakages, roof etc.) or renovating a significant amount of dwellings (including more than 6,000 houses in a 10 years program).

On the other hand, I believe that BVP (as an idea) is absolutely being accepted from both contractors and clients. I will give a short example to support my thought. I was participated in a conference about Best Value Procurement and its application in market industry. I remember that it was asked from a contractor to express their opinion about BVP and if its implementation has provided sufficient results. The contractor stated that either a contractor or client perceived that Best Value Procurement includes not only "lowest-cost" proposal (or management plan) but also quality metrics and most importantly performance indicators. Therefore, it's quite understandable that BVP tries to incorporate elements (in advance) which are 100% necessary for project success. In comparison with previous procurement methods (for instance, traditional method), BVP "mentality" is unique and fundamentally important.

Question 5:

In what kind of projects, BVP can be effectively applied? What's your experience by utilizing BVP as a relatively new procurement system in construction industry (for instance looking its influence on simple or complex projects)?

Answer

As I stated to a previous question, I have engaged in BVP for three times so far. However, two of the three projects have a discrete impact on my career. The first one was the “maintenance policy” and the second the “renovation strategy”. I could say that both of them (even if the second one is still on process) are quite demanded giving an extra challenge and difficulty for every contractor. Their “complexity” is equally due to the fact that, the total amount of contractors (for each project) is by coincidence 4. Despite the “high” number of contractors leading to pretty “tough” interfaces and dependences, these projects have a completely different budget. For example, the “renovation” project (with 6,000 houses) requires almost 60,000 € per house. On contrary, the “maintenance” project demands slightly lower money to make it happen (50€ or less per house). So, it’s really hard to define which of the two projects is typically described as “complex” or not. I can admit that both of programs have a certain level of difficulty and in the end I am really satisfied from their results. Using past performance indicators for every single contractor, gets an “additional” approval of whether a contractor is selected correctly or not (pointed out their knowledge and experience on this particular subject).

Question 6:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of “developments” have been noticed in contrast with the former procurement methods?

Answer

Best Value Procurement supports the theory of “mutual appreciation” and “trust”. By looking at these 2 principles, it can be easily noticed that clients and contractors have a tendency to collaborate together without any sense of fight or battle. Everything is established in a common ground with the acceptance of both sides (either client or contractor). That’s the basic advantage and improvement which distinguished BVP with other procurement stages. For example, traditional system focuses on increasing personal interests (from both sides) by ignoring the final goal: serving a beneficial output. That notion clearly depicts individual ambitions become by fat bigger than public interest and thus conflicts, misunderstandings frequency is in fact higher than expected before.

Interview B6

Date of Interview: 11 August 2022

Name of Interviewee: Jaap Zeilmaker

Field of Work: Project Director

Type of Organization: Public Organisation

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

From my point of view, I presume that multiple reasons together produces a non-beneficial project result in the end. Having limited time to realize and execute your plans and policies have certainly a severely impact on both effectiveness (companies) and outcomes. In the Netherlands, tendering process is carried out usually in public terms by actively involving public organisations as “initiator entities”. They clearly set out how a contract would be formed and the number of suppliers whose participation is needed (take part in the competitive process).

However, contractors attitude is closely related to a more “optimistic” way where important elements have deliberately (or not) ignoring. For instance, a realistic budget offer, time schedule (for activities) and risks awareness becomes a considerably “hot topic” where a reasonably answer (from contractors) is not given appropriately. That happens due to the eagerness of presenting a bid without any problems and false predictions. Also, this is explained in terms of psychological viewpoint where promoters or forecasters have to be overly optimistic living in an “ideal world”. Therefore, a project is slightly impossible to ending up with successful result as long as these “aforementioned” components haven’t accurately considered yet.

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What’s the “contribution” of BVP in project’s success?

Answer

I think that procurement system could definitely “open the door” for gradual amendments and changes particularly on the mindset of project success. Gathering information and data about contractors background can significantly provide a clear picture on how task, roles and liabilities would be allocated equally to everyone. And as you said, Best Value Procurement is a method that encourages data collection in a broadly scale. In such a way, the client has absolutely the confidence and knowledge which contractor must encompasses all the requirements that a project demands. I have to admit that BVP’s introduction in construction business promotes a better evaluation process giving much more attention on how a project has to be built within a fairness perspective (“value for money” or “fair job for fair price”). Therefore, acquiring the basic principles of procurement law

(transparency, openness, reliability etc.), the BVP model is considered as an optimal way to get into project success dramatically faster than ever before.

Question 3:

Why (or why not) Best Value Procurement (BVP) should be considered as a good idea for project success? What makes BVP a successful tool?

Answer

Best Value Procurement method has been famous for its flexibility on “catching” easily contractors. To make it clearly, client has determined accurately (based on certain criteria and requirements) whose experience and past performance fits perfectly regardless of project’s characteristics and standards. So, it is considered that BVP is a reasonable idea to make profit and articulate eventually a promising/successful result.

Additionally, the BVP’s feature that fundamentally describes its effectiveness and efficiency over the years is contractors’ “reliability”. When a project is released to the public, contractors have the opportunity to express their eagerness to participate in the tendering process (usually the number of candidates is prescribed in advance). The “selecting” contractors require to submit a package of documents where everyone includes policies and strategies in order to get the “green” light for next stages (if multiple evaluated stages are embodied) or to be accepted for the job in the end. Whatever is submitted from contractor, needs to be justified and explained why is used and how potentially benefits the entire project at all. In other words, contractors assumptions should be tested and proved (keep their promises). And that is entirely secured by utilizing BVP model in construction business. Limited number of “inappropriate promises” coming from the contractor side has been reported so far, to the fact that in the context of BVP, contractors have the ability to demonstrate everything precisely.

Question 4:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

At Rijkswaterstaat, our policy has focused entirely on how a project should be characterized successful and under which circumstances that goal is achieved at high extent. Considering the values and principles coming from BVP, Rijkswaterstaat has expressed their interest (from the beginning) to apply this method in multiple fields. To give you an example, our company has applied effectively BVP method through ships manufacturing process. So, it’s slightly understandable that I can’t remember exactly the number of BVP projects so far. And that’s happening because we tried to be involved actively not only in the construction projects (which certainly shows an interest) but also other types of services which are perfectly fitted under BVP’s “shelter”.

Given the huge reputation of Rijkswaterstaat (playing the role of executed agency of Ministry of Infrastructure Public Works and Water Management), it’s actually necessary to “re-adjust” its business model into trends and demands. And that’s the main reason why Rijkswaterstaat adopted firstly the BVP philosophy in their strategies. It’s seems absolutely important for big companies (as Rijkswaterstaat and other public organisations) to produce pioneering ideas and strategies in order to be competitive to a maximum level. Although, that “willingness” (to be exposed in highly competitive

environment) remains a threshold for small clients. They prefer to working remotely or domestically by using simple procurement methods in any kind of projects (knowing in advance which supplier has everything that is needed to execute the job). Therefore, I can say that “BVP adoption” is a disputable topic that entails further analysis.

Question 5:

In what kind of projects, BVP can be effectively applied? What’s your experience by utilizing BVP as a relatively new procurement system in construction industry (for instance looking its influence on simple or complex projects)?

Answer

In my opinion, I believe that BVP can be applied perfectly to any kind of project (irrespectively its size, complexity, interfaces etc.). I haven’t witnessed any problem or obstacle by utilizing BVP in construction industry yet. And that makes an important impression because project size still matters and its “connectivity” with complexity establish a critical concern for project success. You can easily identified small projects with highly complexity issues. These issues often coming from false reality interpretation and wrong predictions. However, during my career every single project had performed adequately without significant problems (that usually repeatedly emerging in several projects).

Question 6:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of “developments” have been noticed in contrast with the former procurement methods?

Answer

I strongly believe that BVP as a model is an exceptional method to procure items/projects in the market. The knowledge and expertise lies to contractor side as well as with numerous responsibilities. Having previously performed several projects, a contractor is recognized for their magnificent talent and capability to secure a beneficial outcome for the society. Nevertheless, BVP still has some potentials in order to improve its dominance in the procurement world. It’s necessary to determine how much time and budget is needed to implement the project in accordance with specifications and requirements. Generally speaking ,a realistic approach has to be established properly by sharing sufficient information and insights. That “tactic” instigates better collaboration between client – contractor without additional problems (for example conflicts, accusations, misunderstandings etc.). Speaking directly to the point (things that matters), you “win” the trust and acceptance from everyone.

Interview B7

Date of Interview: 29 August 2022

Name of Interviewee: Vico de Bruijne

Field of Work: Contract Manager

Type of Organization: Public Organisation

Question 1:

Taking into account that projects failure is a frequent phenomenon over the years, which are the main/basic issues leading to that statement?

Answer

As a technical organisation (Rijkswaterstaat), we are trying to provide sufficient contracts which should totally fit with the surrounding environmental conditions. Although, due to lack of technical aspects and details, it might be slightly difficult and confusing for controlling and inspecting relatively easily every asset itself (knowing actually what's the real maintenance status of it). That situation (inability to check assets conditions) influenced both external and internal factors. External factors could be considered uncertainties and complexities and internal factors difficulties with cooperation (among participants) and integrated features.

For instance, taking into account the design/planning phase, lots of issues have emerged particularly in objectives' demonstration. Since a design team has partly (or completely) ignorance of project's goals and requirements, it's certainly "out of the box" to display methods and plans to reach "unknown" targets. Considering the fact that new goals and targets would definitely be found during the preparation and realization of the design phase (added by client's intervention), gives an additional "burden" for a successful result. Additionally, that situation absolutely shows a significant impact on the construction phase. Having already formed an inadequate design (producing shortcomings and deficiencies), a construction phase inevitably begins with a "handicap". Simultaneously though, being out of budget and time even from the initial stages, makes the entire project plan "out of rails" and thus clients (or end users) worry about the reliability and credibility of its final output.

Question 2:

Procurement system is considered as an indispensable tool for eliminating unsuccessful projects. Best Value Procurement (BVP) is a newly introduced procurement method mainly focused in the construction industry. What's the "contribution" of BVP in project's success?

Answer

As a professional procurement manager, I would definitely agree on that term. Procurement phase provides a better understanding of the project mission and how this "vision" could literally be achieved in the end. Using regulations and measures to know beforehand whose expertise belongs precisely to every single task, the client has a clear tendency to evaluate and divide equally (without a sense of unfairness) everything to everyone. Looking entirely at BVP characteristics, I think that the entire process of selecting the best contractor makes the method suitable for project success. In comparison

with other procurement techniques, BVP doesn't exclusively pay attention to the bid itself (even if it's really vital) but also if the "candidate" has expressed points which surely follow the client's perspective. Therefore, BVP introduces methods to establish an "ongoing" relationship between client and contractor with mutual respect and freedom. Since a client recognises the contractor's ability and knowledge of project's specifications, a contractual agreement is ready to be signed from both parties.

Question 3:

Why (or why not) Best Value Procurement (BVP) should be considered as a good idea for project success? What makes BVP a successful tool?

Answer

As I mentioned before, BVP is a method where its contribution is highly appreciated and recognized by several parties. Its effectiveness and efficiency over the years substantiates the positive results and beneficial project outputs in the whole society. To be more precise, BVP's successfulness originated by a mixture of elements (integrated together): getting the right contractor (knowledge, expertise) with an appropriate performance background. Giving a contractor the opportunity to approve their "theories" and plans in real-time, both entities (client & contractor) should be absolutely satisfied and ready to get a sufficient result under certain circumstances (budget, time, quality etc.). In other words, the "iron triangle" (cost, time, quality) demands a certain kind of attention and control by indicating methods and techniques (from contractor side) to avoid "unprecedented" deviations from the initial predictions and anticipations (particularly coming from the client's side). Having gathered information and data before a project is officially started, helps clearly the contractor to be prepared and apply methods on eliminating upcoming risks (in the near future).

Question 4:

Right now, how many times did you applied BVP in construction project? Are clients (either public or private) willing on applying Best Value Procurement (BVP) in construction industry?

Answer

Talking about my professional career, I have used the Best Value Procurement method only once (even if as a public organisation, Rijkswaterstaat has been involved several times in BVP projects). The problem that I had to deal with BVP was about coordination and preservation of a large number of assets in the northern part of the Netherlands. At the moment, our vision is to finish by 2023 the design/planning phase and move forward to the contracting of the realization stage (namely as construction stage).

Regarding the "clients openness" for adopting BVP principles and values within projects, there is a huge dilemma. Mostly, they are relatively open to be engaged in the BVP however not so enthusiastic. And that happens due to the fact that the BVP process might be quite expensive than an ordinary procurement method (normally clients use). Additionally, it depends on the type of organisation (public or private, small or large) and of course which are the characteristics of each project (simple, middle-class or large). For instance, a large organisation (like Rijkswaterstaat) has made a pioneering movement since it became the first public organisation (in the Netherlands) which applied BVP in the construction industry. Taking into consideration a small domestic organisation, it's certainly open to take part in simple form projects rather than in big scale projects. And that's quite logical due to a fear of being exposed in a risky environment (with a "non-affordable" cost participation).

Question 5:

In what kind of projects, BVP can be effectively applied? What's your experience by utilizing BVP as a relatively new procurement system in construction industry (for instance looking its influence on simple or complex projects)?

Answer

As a procurement manager, I have conducted a lot of procurement stages by looking at whose contractors' expertise and capabilities match perfectly with project traits. As I said before, Best Value Procurement has a significant influence on participants' mindset and beliefs (on how an efficient procurement style can be organised). I have engaged in a project with a large-scale complexity and what comes to our mind is definitely opposite with other similar projects. Here, we don't talk about a construction project but more about asset management and coordination.

An engineering contract established in order to efficiently handle a fleet of assets which are positioned in the northern part of the Netherlands. Given the magnitude of the task, multiple contractors are actively involved and composed a consortium in order to confront precisely difficulties and issues. Therefore, I strongly believe that BVP is much more suitable for complex projects rather than simple one. If somebody wants to execute a "straightforward" job (for instance installing a new road asphalt), there are less obstacles and barriers to deal with. On the contrary (in our case), having obtained a bunch of activities to implement, several stakeholders and anticipations rising dramatically and then contractors has to deal effectively with "countless" issues and demands. And that's why BVP is "coming on the stage". Since everyone is part of the problem, he/she has the obligation to express feelings and ambitions openly without a sense of fear or rejection from other parties. BVP has a special characteristic to allocate roles, tasks, authorities and most importantly serving a sufficient result even if huge interfaces and interdependencies (complexity) occur among parties. Therefore, in order to have everyone on the "same page" following similar goals and targets (no matter its uncertainty or project size), BVP should be applied more in large-scale projects (contractor takes the lead and becomes the team's "expert").

Question 6:

As an expert on Best Value Procurement field, is there any improvement of the construction industry since BVP has been applied in projects? If yes, what kind of "developments" have been noticed in contrast with the former procurement methods?

Answer

Without a doubt every method has positive and negative aspects. During our interview, I have tried to demonstrate all the advantages where that method has found its necessity for the market industry. However, I believe there is a space for further improvement and alleviate any kind of downsides or shortcomings coming from its implementation. As I mentioned beforehand, BVP has a large amount of expenses that originated from its magnitude and importance. Meanwhile, the duration of all preparations have been noticed as a critical "thorn" due to their large time completion and misunderstandings among project actors. Therefore, I think that a close look and understanding on how those significant factors (time & cost) could be modified and managed efficiently should be needed.

Moreover, it can be observed that BVP gives more priority on discussions and negotiations between parties about ways of distributing and allocating tasks and responsibilities (agreed upon what

necessarily needs to be applied for reaching a final successful result). Contractors have a leadership and guide the entire project in accordance with their expertise and knowledge (that's why contractors are eager/obliged to take over several risks and ultimately gain more profits). In fact, BVP has provided more benefits than other procurement methods, since less management (from client) and more flexibility (contractor) are decisive factors for final success.

14. Appendix C – Experts Interviews

In that Appendix, adjusted recommendations about BVP implementation are placed. In the following points are covered:

- Ø Appendix C1: Author, Trainer & Consultant in Best Value
- Ø Appendix C2: A+ certified Best Value Trainer
- Ø Appendix C3: Contract Manager

Interview C1

Date of Interview: 10 November 2022

Name of Interviewee: Jeroen Van de Rijt

Field of Work: Consultant

Type of Organization: Consultancy Firm

Pre-qualification stage

Question 1:

Since the pre-qualification stage is currently optional across industries, it's highly recommended to become mandatory (particularly in complex projects, which gradually increase over years)

Answer

Actually, I don't fully agree on that. For example, if the pre-qualification stage happens it means that the client tries to "manipulate" the buyers/contractors. It seems that client has little trust and faith about contractors (and call him "stupid"). It's like a mapet show.

There are two types of contractors:

- a) Those that are fully aware of their capabilities and know exactly where should be involved and submit a bid (even if they recognize that they are not the best candidate).
- b) Those that are blind and "overestimate" their skills and decide to participate (wrongly) in the process

Therefore, I can say that from a practical point of view, that statement (necessity of pre-qualification) is true but from philosophical point of view is not (let the contractors decide whether to participate or not). Quite often complex projects require a pre-qualification phase to evaluate more the contractors' profile. That happens because a huge amount of money is at risk so, safeguards against wrong contractor's selection are needed. Anyway, I would prefer to use the term "stage 0", where education is taking place (informing everyone about BVP principles and values). And then, pre-qualification stage (depends on the complexity).

Question 2:

It's advisable for establishing a limitation of submitted participants (regardless of project's size, magnitude, duration etc.)

Answer

Again, from a practical viewpoint I agree on that. It's a reason why actually pre-qualification stage is required. If you use dominant information (as Dean Kashiwagi suggests), it doesn't matter how many bids are you supposed to collect (5 - 12 or more). That literally helps because if the bid is garbage, you will recognise it quite easily. Nevertheless, I suggest to narrow down your invited participants (less time consuming and few money wasted). When a project has 40-50 bids to choose from, then we talk about either small or easy project to be done. So, an alternative procurement method might be a better idea rather than BVP.

Question 3:

Together with clients, consultants should be part of the organisational team. They (consultants) provide explicit knowledge and information from the beginning (pre-qualification) till the end (execution)

Answer

Absolutely true. As I mentioned before, a consultant has to be a neutral third party. Thus, he doesn't belong either to client or contractor side. He stands "above" the project and parties (inspecting every activity and intervene whenever is needed). That's the wisest thing that has to be done (from consultant side).

Selection stage**Question 1:**

An evaluation committee should be formed in order to assess fairly and unbiased contractors' expertise (towards project's objectives and goals)

Answer

In contrast what I mentioned before, I believe that "evaluation committee" should be part of the client organizational team and not neutral third party (as consultants). The committee is partly independent and is characterized by its fairness and unbiased selection of the best contractor (for example, not expressing their preference on either option A or option B). Therefore, I believe that your statement is logical enough.

Question 2:

Considering the type of project (small, middle, large), a series of interviews (conducted by project managers) are needed (right after evaluation committee finishes its assessment)

Answer

I am bit confused on the term “after evaluation committee finishes their job”. Because I believe that interviews are part of the assessment process. So in my opinion, I think that the following steps demonstrate the evaluation path:

- a) project capability plan
- b) value added plan
- c) risk assessment plan
- d) interview sessions

Even if, I placed interviews within the assessment process (and not separately as you said), I had a feeling that also your point is reasonably enough. Therefore, I would say that I could verify and validate your assumption (how evaluation would take place towards BVP paths)

Question 3:

In case of large scale projects (with long-term duration), it's essential to select more than one contractors (benefited eventually the project delivery)

Answer

I totally disagree with that. If a supplier is capable to execute a big project, let him do it. If you use an extra supplier to work together with him, plenty of difficulties and interfaces will happen. And that becomes even more worst if we consider the fact that the number 1 contractor scoring 10 (in every single factor), however the number 2 contractor (helping the first) has scored less than 10 (such as 5 or 6). It's totally unfair to put an “intelligent” contractors together with a “non – sufficient”.

Let me give you a short example. Right now, I run a complex/big-scale project where 5 contractors submitted their interest. However, concerning the 3 evaluation steps above (project capability, value added, risk assessment), we understood that 3 out of 5 participants they didn't score well enough. So, we decided to proceed the project (and not cancelling), by including only 2 contractors (and “breakdown” the work into two phases). That literally helped the contractors to focus entirely on their own job (without being intervened from the other contractor). More specifically, the first contractor scored higher than the second (9 vs 6). However, the “exception” of hiring two contractors is not preferable at all. Although, I suggest to select only one contractor (the one with best project understanding).

Clarification stage

Question 1:

Consultants actively engagement in process could inherently motivate contractors & clients to take seriously that phase (contractor is still under evaluation process)

Answer

I totally agree with that statement (100%).

Question 2:

Maximum price and specifications should remain the same (over the entire BVP process)

Answer

Firstly, I strongly believe that by changing specifications is totally unacceptable and unfair particularly for those rejected in the selection stage. Therefore, in terms of specifications I would prefer to remain the same (I agree with you). However, for maximum price doesn't happen the same story. Different circumstances might happen on ground (and then justified the reason behind the price rising). So, talking about the competition itself, I think price modifications are acceptable but for specifications no.

Question 3:

Contractors should clarify and explain in details how their proposed risks could be minimized (or take advantage of them) during the project. Additionally, it's advisable (for contractor) to take into account also every single risk (coming from the "disqualified" candidates

Answer

From my perspective, I agree with that statement because contractors are evaluated with an extra element (risks from third parties). The "disclosure" of those risks would happen by clients demonstration (as an anonymously source) and not directly from the "disqualified" proposals.

Execution stage

Question 1:

During the execution stage, an official report should be given (from contractor to client). That indicates deviations (from the initial plan) and possible adjustments (on the plan)

Answer

I can agree with that statement. I would give you a small remark though. Multiple official reports are given from contractor to client. That happens due to the fact that in a weekly basis, the contractor needs to inform and give the latest evidences to the client (potential problems influencing the working progress). Therefore, in the end it seems actually necessary.

Question 2:

Client has to remain closely with the contractor ("in touch") so as to help him with unprecedented events

Answer

It's quite difficult, but I totally understand your point and agree as well. However, sometimes "clients" initiative might conclude with certain kind of interferences to project activities (that's could be inevitably chaotic). Therefore, a careful examination of this (talking about the interference) should be given. The supplier could ask for help (from client). Meanwhile, the supplier has to acknowledge and accept client's knowledge and expertise to a certain point (and client should of course contribute on that)

Interview C2

Date of Interview: 10 November 2022

Name of Interviewee: Jan Hutten

Field of Work: Consultant

Type of Organization: Business Consultancy Firm

Pre-qualification stage

Question 1:

Since the pre-qualification stage is currently optional across industries, it's highly recommended to become mandatory (particularly in complex projects, which gradually increase over years)

Answer

I disagree with that statement because pre-qualification stage is about training. In markets (such as in the Netherlands), it's commonly known how BVP is applied and what principles are derived from its implementation (so training session doesn't need anymore). For markets, where BVP is totally a new term and nobody knows how to implement it, then training session is required as well as pre-qualification stage. Additionally, when a complex project appears, clients usually try to make it less complex for their personal convenience and usability (even if complexity is increasing over the years)

Question 2:

It's advisable for establishing a limitation of submitted participants (regardless of project's size, magnitude, duration etc.)

Answer

By reducing the number of participants, apparently gives the responsibility to the client to either qualify or disqualify potential bidders (but client hasn't got the knowledge and expertise to do it). And of course when a contractor doesn't feel confident enough to submit a document, he slightly avoid participating in that process (because he estimates correctly their skills). Every participant knows actually beforehand when their possibilities are less or higher to get the job (and then act respectively). So, I don't agree with that. Occasionally, when a market is immature (such as Norway or Poland) on adopting BVP, it's better to organise a pre-qualification stage (more international companies are getting involved and clear distinction of rules are necessary). However, the Netherlands has totally mature market, so in that case pre-qualification stage is no longer necessary at all.

Question 3:

Together with clients, consultants should be part of the organisational team. They (consultants) provide explicit knowledge and information from the beginning (pre-qualification) till the end (execution)

Answer

I totally agree with that. It's necessary to engage consultants to offer their knowledge on providing tender documents (people who are available at that initial point should be 100% available till the end). Keeps the knowledge between certain number of people (during the entire process)

Selection stage

Question 1:

An evaluation committee should be formed in order to assess fairly and unbiased contractors' expertise (towards project's objectives and goals)

Answer

I believe that statement is totally necessary. So, I agree 100%

Question 2:

Considering the type of project (small, middle, large), a series of interviews (conducted by project managers) are needed (right after evaluation committee finishes its assessment)

Answer

Yes, I agree with that (considering always the type of project). A close look should be given to what fits best for my project (for example, including 2 or 3 people (in total) or a group of people or individually (per person)). Basically, the size of the project doesn't necessarily play an important role in the interview style. The number of phases (design, construct, maintenance, operation etc.) are considered important for the interviews (looking for a designer or project manager or conducting interviews with critical stakeholders). If you have multiple phases to handle, it might be useful to see different people. For example, if a project is small (simple tasks are included) then a project manager is enough (to host the interview). On contrary, 2-3 people could be perfect for establishing a "host" committee.

Question 3:

In case of large scale projects (with long-term duration), it's essential to select more than one contractors (benefited eventually the project delivery)

Answer

It's an usual phenomenon to work with two people on the clarification stage (splitting the stage in two separate phase for each participant). Although, I actually disagree with that. From my experience, I have done several IT projects. I have noticed that there is a huge difference on understanding the IT concept. When a client is responsible for selecting the best contractor (especially in immature market), it would be easier (for him) to select two contractors (apparently because he hasn't got enough expertise to recognise the best one). Though, that "non-professional" selection brings two "wrong" contractors (to execute the job). Additionally, it has been noticed that a selection of two contractors is much efficient for some industries. To make it clearly, the tender documents in the pre-qualification stage states all the rules of competition and everyone should stick on them. So, if that documents refer to select more than one contractor, so let's do it (rules must remain the same).

Clarification stage

Question 1:

Consultants actively engagement in process could inherently motivate contractors & clients to take seriously that phase (contractor is still under evaluation process)

Answer

I agree on that. And as I mentioned previously, tender documents incentivize all actors to take every step seriously and without a sense of discrimination. That actually helps to improve the final project delivery. Keep in mind that clarification phase goes together with the European procurement law. So, it's important to know how a contractual agreement is signed (between client & contractor) and when a "replacement" (from another contractor) could happen. Let me give you a quick example. Imagine we have two contractors in the clarification stage, but later one of the two has disqualified and another one comes to replace him. In that case, the first contractor (from the beginning) knows more information about the project rather than the second one (who replaced the "incapable" one). Thus, you can understand that a "gap" of knowledge exist (actually unfair). Based on the procurement law, a contractor should remain on their offer, but if he found out in the clarification stage that he can't stand for their offer anymore, he needs to impose some modifications. In Norway, modifications after signing the contract is not acceptable (indicating shortages and lack of knowledge from contractor's side), but in the Netherlands could happen.

Question 2:

Maximum price and specifications should remain the same (over the entire BVP process)

Answer

As I mentioned before, specifications must remain the same during the whole BVP process. Because that gives transparency, equality and stick on the rules. If rules will change in the clarification stage (let's say) that would absolutely be unfair for the "disqualified" contractors (because now the game has changed and new reforms or regulations are introduced). For instance, imagine a company/client is looking for coffee machines and has a maximum 60 machines to be manufactured and lately (in the clarification stage) decides to cut down the 60 to 58 machines. That's totally wrong especially for those who rejected before (because now the "rules" of the game have modified). The same situation happens also with the maximum price. So, I totally agree on that statement.

Question 3:

Contractors should clarify and explain in details how their proposed risks could be minimized (or take advantage of them) during the project. Additionally, it's advisable (for contractor) to take into account also every single risk (coming from the "disqualified" candidates

Answer

That's absolutely true. Normally, in the selection stage, the risk assessment plan is approximately 2 pages and in the clarification increases at 60 pages (if we considered that 1 full page is for one risk and we have 30 risks). In that case, the "qualified" contractor needs to be aware of every potential risk (even if he hasn't defined yet) that could happen (and be prepared to control it). That explains also their capability to eliminate and reduce every unforeseen event in advance.

Execution stage

Question 1:

During the execution stage, an official report should be given (from contractor to client). That indicates deviations (from the initial plan) and possible adjustments (on the plan)

Answer

I agree on that. An official report includes information about possible deviations and changes on the plan (and ask a request for modifications in your plan). That report has to contain 20 pages explaining the reason why that change should be taken into account. Afterwards, you need to wait for clients approval, because in the end the client is responsible for paying everything at all. Normally, the respond from the client is around one week.

Then, I would say that there are two reports:

- a) Official report (explaining why a deviation is needed)
- b) Weekly report (to inform the client about working progress)

For instance, if the project might be postponed for one week (causing by a massive snowfall), the weekly report has to refer it (as a statement), but the official report has to explain in details why this should be happened (and cost more money & time). And that's really necessary especially for the contractor to show up their justification for getting that decision.

Question 2:

Client has to remain closely with the contractor ("in touch") so as to help him with unprecedented events

Answer

Yes, I believe that's true. The client needs to remain "in touch" with the contractor because if something unexpected happens, he (client) should act immediately. However, in order to accept that situation, there is a preparation time. Both clients & contractors might acknowledge the fact that either client or contractor has the willingness and eagerness to help each other (and not ignoring each other skills and capabilities)

Interview C3

Date of Interview: 05 December 2022

Name of Interviewee: Richard Hartmann

Field of Work: Contract Manager

Type of Organization: Public Organisation

Pre-qualification stage

Question 1:

Since the pre-qualification stage is currently optional across industries, it's highly recommended to become mandatory (particularly in complex projects, which gradually increase over years)

Answer

Yes, I agree with that statement. At Rijkswaterstaat we have a policy to stick on the European tender rules. It's necessary to make a separation between the bids and bidders. In that case, we firstly take a look on bidders profile (economic stability, legal status etc.) and afterwards to inspect the bid (proposal) itself. So, it's important to have a phase (like pre-qualification) which enables us to work separately on bidders (first) and afterwards to bid

Question 2:

It's advisable for establishing a limitation of submitted participants (regardless of project's size, magnitude, duration etc.)

Answer

I can admit that statement is true. Normally, we try to have 3 -5 bids in total (in terms of the work complexity). For instance, if the project is really complex and it needs careful examination, then we decide to choose only 3 bids. However, in some cases (when a project is simple enough), we try to invite 10 participants. In that way, the tender cost is reduced (cause we have plenty of proposals) and a reasonable offer would be received (since more than 3 or 5 bids are selected).

Question 3:

Together with clients, consultants should be part of the organisational team. They (consultants) provide explicit knowledge and information from the beginning (pre-qualification) till the end (execution)

Answer

As a big public organisation (Rijkswaterstaat), we would like to perform our projects from "our hands". In other words, we prefer to execute every single project alone and if a necessity emerges, then we are looking for consultants (to work together with us). For instance, we search for consultants when our team is running out of engineers (or doesn't have enough engineers) to implement that project.

When a BVP has been chosen (as a procurement option), we take a close look at our “manpower”. Then, we asked: Can we do the project ourselves? Then, let’s do it alone. Otherwise, we are looking forward to cooperating with an “external partner” (like BVP specialist). Therefore, to finalize my opinion I believe that consultants are really helpful when difficulties (on implementing the project by yourself) appear.

Selection stage

Question 1:

An evaluation committee should be formed in order to assess fairly and unbiased contractors’ expertise (towards project’s objectives and goals)

Answer

I believe that the statement is valid enough. We have a team or group of people (as you call, evaluation committee) to take decisions about the selection of the best contractor. So, a fair and “non-intentional” decision needs to be established.

Question 2:

Considering the type of project (small, middle, large), a series of interviews (conducted by project managers) are needed (right after evaluation committee finishes its assessment)

Answer

Interviews are really important and quite difficult to implement as well. That happens, because sometimes there is a possibility to become not objective (and objectiveness is crucial in the evaluation process). For instance, when a government is carrying out an evaluation process for selecting the best contractor, then it’s absolutely necessary to treat everyone on the same level with others. You can’t express a favour or preference to a certain candidate. Traditionally, besides the objectiveness of the interviews, the real reason for exercising interviews in the selection stage comes from the fact of understanding whether the contractor actually has an idea what the project is about? And what do their proposal include? Therefore, I agree on using interviews in the evaluation process

Question 3:

In case of large scale projects (with long-term duration), it’s essential to select more than one contractors (benefited eventually the project delivery)

Answer

No, I don’t agree with that. When the selection stage finishes, only one contractor is selected. In case of incompetent contractor (proven in the clarification stage), then a second contractor comes to “replace” the incompetent one

Clarification stage

Question 1:

Consultants actively engagement in process could inherently motivate contractors & clients to take seriously that phase (contractor is still under evaluation process)

Answer

I believe that since a qualified contractor has been chosen, an external “advisor” (for example, consultant) doesn’t need to be hired (to force for complying with the process). Therefore, I think that consultants’ help (on incentivizing parties for taking seriously the process) is not necessary

Question 2:

Maximum price and specifications should remain the same (over the entire BVP process)

Answer

Technically, both maximum price and specifications could be changed over the process. Sometimes unexpected events might happen which influence tremendously on both factors (price & specifications). For instance, imagine if we have four bids (in the selection stage) and all of them are facing severe difficulties in proposing something with the maximum price. Then, automatically changes would emerge, helping the bidders to submit a better proposal in order to get the project. Simultaneously however, things that cannot be changed are quality. In the case of architectural projects, quality has a predominant role in the performance. So, there is no reason for accepting a project with low-quality and performance as well. So, changes in maximum price and specification might happen

Question 3:

Contractors should clarify and explain in details how his proposed risks could be minimized (or take advantage of them) during the project. Additionally, it’s advisable (for contractor) to take into account also every single risk (coming from the “disqualified” candidates

Answer

I think that an ultimate focus should be attributed only to the winner’s bid (including their risks) and don’t incorporate other risks (on their clarification stage). It doesn’t matter to take a look at other risks since we pay attention to the contractor's capability to prove/substantiate their plan. So, I don’t agree with that

Execution stage

Question 1:

During the execution stage, an official report should be given (from contractor to client). That indicates deviations (from the initial plan) and possible adjustments (on the plan)

Answer

It’s quite common (during the process) to change/alter your plans. That literally occurs due to uncertainties emerging and you need (as contractor) to adjust your plans accordingly. However, when a modification happens apparently many things are changed (including money, risks etc.). Therefore, it’s necessary to make clients aware of the situation (by indicating the reasons why that deviation occurs and what “results/consequences” would have the entire process). So, it needs to be mutually agreed! I agree that an official report is needed (from contractor to client)

Question 2:

Client has to remain closely with the contractor ("in touch") so as to help him with unprecedented events

Answer

Yes, that's absolutely logical. Under a contract agreement, everyone is supposed to help each other (in order to fulfil a goal). Every party (either client or contractor) has certain responsibilities and when an unprecedented event happens (and one of the two parties demands help) the other party should be willing (first) and ready to respond!

15. Appendix D - Current BVP implementation

	STAGE 1 Pre-qualification	STAGE 2 Selection	STAGE 3 Clarification	STAGE 4 Execution
Purpose	<ul style="list-style-type: none"> Educate & train every participant towards the BVP philosophy (Wondimu et al., 2020) Limitation in submitted participants depending on the project complexity & size 	<ul style="list-style-type: none"> Choose the best contractor for executing the project 	<ul style="list-style-type: none"> Given a chance to the qualified contractor to prove/verify his assumptions A contract agreement is signed between client – contractor (Lesjo et al., July 2019) 	<ul style="list-style-type: none"> The contractor has to apply all their methods and plans on ground, with ultimately goal to finalize the project
Activities	<ul style="list-style-type: none"> Consultants are being asked to spread the knowledge of BVP philosophy (for instance, principles, values) (Wondimu et al., 2020) Contract managers, together with clients describe important project elements (specifications, objectives, goals) and criteria for filtering contractors (Bruno et al., 2018), (Lesjo et al., July 2019) 	<ul style="list-style-type: none"> Evaluation committee (or clients) has to take into account the awarded criteria for evaluating contractors (Tran et al., 2017) Interviews, carried out from contract or project managers, should be held right after evaluation process finishes. The number of interviews varies (one, two or more). The main goal is to check contractors expertise (Storteboom et al., 2017) Even though training sessions & educational lectures happens in the pre-qualification stage, it is necessary to have consultants, as the major training source within the entire process (transfer regularly knowledge to actors) Usually, more than one contractors could be chosen 	<ul style="list-style-type: none"> Contractor predicts/foresees potential changes or modification in near future. Moreover, he has to substantiate their plans by proving their functionality, (Lesjo et al., July 2019) Negotiations between client – contractor in terms of potential modifications in specifications or maximum price taking place (Van de Rijt & Santema, 2009). Additionally, allocation of roles, responsibilities and tasks are discussed between client – contractor as well. (Bruno et al., 2018) Even though training sessions & educational lectures happens in the pre-qualification stage, it is necessary to have consultants as the major training source within the entire process (transfer regularly knowledge to actors) 	<ul style="list-style-type: none"> Contractor is implementing their plans and method on site Contractor should inform the client about possible deviations (divergions) on his initial plan. Every difficulty facing during the phase, it needs to be informed to client. Extra attention due to probability of high cost and resources consumption. (Lesjo et al., July 2019) Even though training sessions & educational lectures happens in the pre-qualification stage, it's necessary to have consultants as the major training source within the entire process (transfer regularly knowledge to actors)

STAGE 1 Pre-qualification	STAGE 2 Selection	STAGE 3 Clarification	STAGE 4 Execution
Elements <ul style="list-style-type: none"> • General elements for BVP success: <ul style="list-style-type: none"> ▪ Specifications ▪ Information of tenderers ▪ Quotation ▪ Awarding criteria • Elements for filtering contractors: <ul style="list-style-type: none"> ▪ Soft criteria: <ul style="list-style-type: none"> ◦ Past performance indicators ◦ Human resources ◦ Machinery/equipment ▪ Hard criteria: <ul style="list-style-type: none"> ◦ Bank statements ◦ Legal stability ◦ Administrative status 	Elements <ul style="list-style-type: none"> • Awarded criteria for evaluating contractors suitability: <ul style="list-style-type: none"> ▪ Primary elements: <ul style="list-style-type: none"> ◦ past performance ◦ record of success ◦ contractor's experience with similar projects ◦ project completion under certain time, cost, quality ▪ Secondary elements: <ul style="list-style-type: none"> ◦ effective management of sub-contractors ◦ corporate commitment on achieving customer satisfaction • Awarded criteria for interview process: <ul style="list-style-type: none"> ▪ Risk management plan ▪ Value added plan 	Elements <ul style="list-style-type: none"> • Maximum price & specifications might be changed during the stage • Risks from disqualified contractors • Contractor's plan and methods 	Elements <ul style="list-style-type: none"> • Official report (includes every single detail about plans modification). It should be given in a weekly basis (from contractor to client)
Including parties <ul style="list-style-type: none"> • Consultants • Contract manager • Project director • Clients 	Including parties <ul style="list-style-type: none"> • Clients • Contract manager • Project manager • Tender manager • Consultants • Project director 	Including parties <ul style="list-style-type: none"> • Contract manager • Project manager • Project director • Consultants • Clients • Contractors 	Including parties <ul style="list-style-type: none"> • Contract manager • Project manager • Project director • Consultants • Clients • Contractors

Table 15.1 Current BVP implementation