

Public-private partnerships in real estate: The relationship between contractual conditions and end-user experience

A mixed-method case study of Rijkskantoor de Knoop



Colophon

Author:	Frenk van Stipriaan
Student number:	S3622258
Supervisor:	Dr. Stefan Verweij
Date:	7 th of July 2022
Version:	Final
Programme:	Spatial Planning and Design
Faculty:	Faculty of Spatial Sciences
University:	Rijksuniversiteit Groningen

Cover page: Author.(2022). Photograph of Rijkskantoor de Knoop.

Abstract

As the Rijksvastgoedbedrijf seeks to add value to its building stock, public-private partnerships (PPPs) are used as a means of enhancing quality in the form of non-financial benefits such as higher service quality and stronger customer orientation. Studies have suggested that an improved focus on the end-user of projects realized through public-private partnerships could enhance quality and further underline PPPs as a viable alternative to conventional procurement. Therefore, this research is aimed towards the end-user experience of such Rijksvastgoedbedrijf projects, by linking this experience to contractual conditions in DBFMO-contracts of the Rijksvastgoedbedrijf.

This is achieved through a mixed-method case study of Rijkskantoor de Knoop, a governmental office in the Dutch city of Utrecht realized through a DBFMO-contract by consortium R-creators, commissioned by the Rijksvastgoedbedrijf. Through conducting in-depth interviews with stakeholders involved in PPP-contracts of the Rijksvastgoedbedrijf indicators for contractual conditions have been analysed. A survey among end-users of the property has been conducted to gain insight into their respective experience of this PPP-project. The research also draws a connection between these two variables. The research concludes that a connection between favourable contractual conditions and positive end-user experience of DBFMO-contracts of the Rijksvastgoedbedrijf is present. Both public and private stakeholders experience the working conditions in this PPP-projects as exemplary, which contributed towards improved end-user experience, as reflected by the findings of the survey. Therefore, this research contributes to existing research by providing an explanation as to how a positive relationship between contractual conditions and end-user experience is realized and maintained.

Table of contents

Abstract

1. Introduction

- 1.1. Background
- 1.2. Research problem
- 1.3. Reading guide

2. Theoretical framework

- 2.1. Dependent variable
- 2.2. Independent variable
- 2.3. Conceptual model

3. Methods

- 3.1. Research strategy
- 3.2. Data collection instrument
- 3.3. Survey on end-user experience
- 3.4. In-depth interviews about contractual conditions
- 3.5. Data analysis
- 3.6. Ethical considerations

4. Results

- 4.1. End-user experience
- 4.2. Contractual conditions
- 4.3. The relationship between contractual conditions and end-user experience

5. Discussion, reflection and recommendations for future research

6. Conclusion

References

Appendix 1 – Interview guide (in-depth interview)

Appendix 2 – Interview guide (survey)

Appendix 3 – Consent form

Appendix 4 – Coding tree

Chapter 1 – Introduction

1.1 Background

In the Netherlands, real estate is ubiquitous, and holds immense value. It is said to account for two-thirds of the country's 2437 billion euro capital stock as of 2020 (CBS, 2022). Part of this building stock has been realised through so called public-private partnerships (PPPs), in which public and private stakeholders cooperate to create products and services while sharing the costs and benefits (Hodge et al., 2010). The Rijksvastgoedbedrijf (Central Government Real Estate Agency) has realized fifteen buildings through PPPs so far (Rijksvastgoedbedrijf, 2022). For example, a common type of PPP is the DBFMO (Design, Build, Finance, Maintain and Operate) contract, in which a long-term partnership manages a project from start to finish, ensuring quality and performance over the entire lifecycle of the infrastructure project (Demirel et al., 2015).

The value of real estate and potential to realize this through PPPs is also recognized by the Dutch Government. The Rijksvastgoedbedrijf (RVB) also employs these DBFMO-contracts in an effort to create high-quality, high-performing buildings for a variety of government agencies, such as the Tax and Customs Administration, the Ministry of Finance, the Supreme Court and the Custodial Institutions Agency. In the case of the Rijksvastgoedbedrijf, DBFMO-contracts are utilized for projects with a cost of 25 million euros and over, while a Public-Private Comparator is utilized for projects with a cost between 5 and 25 million euros and over (Rijksvastgoedbedrijf, 2022b). These real estate projects, among other government projects, can be made available to the market and managed through TenderNed, functioning as a centralized medium for government tenders (TenderNed, 2022).

1.2 Research problem

There is discussion between academics surrounding the performance of PPPs, what exactly creates this performance and whether or not PPPs really have any performance gains over public-only projects at all (Hodge & Greve, 2017). This is also for true for real estate projects that involve PPPs, including DBFMO-contracts of the Rijksvastgoedbedrijf (Neerlands diep, 2019). Studies have suggested that PPP projects in real estate fail in terms of end-user-experience and do not produce desirable characteristics, such as the provision of quality and cost-effectiveness (Majamaa et al., 2008). Studies have previously called for a further calibration of PPPs towards end-users (Batra, 2022).

In the realm of public-private partnerships, there are a multitude of indicators proposed to assess the performance and success of a PPP. For instance, Value for Money (VfM) is a broad indicator of both financial and non-financial benefits (NFBs), underlining that the value of a PPP is not necessarily limited to financial aspects such as cost, revenue and profit (EPEC, 2011). This indicator has been employed in the field of infrastructure, but it has been suggested by Warsen et al. (2018) that it has been used to a lesser extent in the field of public-private partnerships in real estate, for example the PPPs that involve the Rijksvastgoedbedrijf. Even though VfM is believed to be a key motivator for PPPs (EPEC, 2015), it is also believed that this key motivator underestimates the benefits of PPPs as it does not shed enough light on NFBs such as end-user experience (EPEC, 2011). There is also discussion surrounding what exactly causes a positive influence on non-financial benefits, and what contractual conditions could potentially influence this (Siemiatycki & Farooqi, 2012). Identification, valuation and justification of NFBs like end-user experience is complex, but has to be considered in addition to conventional procurement in an effort to ensure higher levels of quality from PPPs throughout the duration of their contracts (EPEC, 2011). Therefore it could be useful to find a relationship between contractual conditions that hold influence over the end-user experience of the Rijksvastgoedbedrijf's building stock, in order to assess the performance and quality of PPPs employed in real estate projects. Considering the research problem and literature discussed above, the following central question and secondary questions are proposed:

What contractual conditions enable non-financial benefits for end-user experience of Dutch public-private partnerships in real estate projects of the Rijksvastgoedbedrijf?

- 1. What are the non-financial benefits for end-user experience of the real estate projects of the Rijksvastgoedbedrijf?*
- 2. What are the contractual conditions of the PPPs of the Rijksvastgoedbedrijf?*
- 3. What is the relationship between the conditions and the non-financial benefits for end-user experience?*

1.3 Reading guide

In the next chapter, the theoretical framework, existing international and domestic literature and reports on public-private partnerships in real estate projects will be discussed with relation to the research questions and their respective variables. Here, a connection is drawn between the non-financial benefit of end-user experience and the contractual conditions enabling this phenomenon, together with the presentation of the conceptual model. The utilized methodology and the mixed-method case study will be presented in the follow-up chapter. Afterwards, the results of the survey and in-depth interviews will be presented, followed up by, discussion, reflection, recommendations for future research and concluding remarks.

Chapter 2 - Theoretical framework

2.1 End-user experience

When a public-private partnership is considered for a real estate project, a rather limited amount of direct financial benefits is weighed up against the cost of a project to decide whether or not it should be realized. The VfM is strictly limited to financial aspects, as they often adhere to cost-minimisation approaches, which disregard a multitude of other benefits to be had from PPPs such as DBFMO-contracts. Therefore it is suggested that this view underestimates the benefits of PPPs, and NFBs seek to offer a more holistic view of the advantages of public-private partnerships (EPEC, 2011), for example through taking end-user experience into account. Scholars have placed an emphasis on the importance of non-financial determinants in establishing PPPs (Mota & Moreira, 2015). Studies have also called for more active involvement of end-users in creating expectations from PPP projects (Kondapalli & Deepak, 2017), and have even suggested co-creation with end-users (Medimagh & Triki, 2019). In other research, the Public-Private-People Partnership (4P) model is proposed as an alternative to conventional PPPs to more actively involve the end-user throughout the duration of the project (Majaama et al., 2008).

In the case of real estate projects, end-user experience directly relates to the spatial quality of the indoor and nearby outdoor environment. The added value of a property is not limited to its own floor area, with the reachability of a real estate project having a strong influence on its performance, for example through close proximity to high-quality rail connections (Debrezion et al., 2011). Next to this, government buildings such as those of the Rijksvastgoedbedrijf should remain accessible to people across all age groups. It is therefore important to consider the accessibility of buildings with regard to limited mobility and ability (Kazak et al., 2019). Upon entering a property, the potential enhanced quality of a PPP could have a positive influence on service quality, for example through overall maintenance of the building, such as but not limited to security, catering and cleaning services (EPEC, 2011). This added quality is further underlined by the affordability of these services. When concerning the indoor environment, thermal, lighting, air and noise-related aspects influence the end-user's perceived comfort of the indoor environment (Bluysen, 2009). Acoustics in particular have been said to be a challenging aspect of office buildings (Ottobre et al., 2019).

The Dutch Government acknowledges the previously discussed indicators of end-user experience and is determined to apply them to Rijksvastgoedbedrijf properties. In Fysieke Werkomgeving Rijk (Physical Working Environment of the State), the Ministry of Internal Affairs (2015) prescribes the standards that properties such as Rijkskantoor de Knoop should meet in terms of quality. Therefore, a selection of these spatial qualities have been included as indicators of end-user experience in this research are described by the Ministry of Internal Affairs (2015) as follows in Table 1:

Indicator of end-user experience	Features
Reachability	Strategic location, good connection with public transport
Accessibility	One entrance for all users, strong recognisability and branding
Service quality	Service level based on demand of local environment
Affordability	Flexible arrangements in services and rent agreements
Spatial quality	Properties with low energy consumption, contributing to a bio-based economy. Buildings are approachable.
Comfort	A healthy environment that actively contributes to the wellbeing of the user

Table 1 – Six indicators of end-user experience, with features taken from the Ministry of Internal Affairs (2015)

2.2 Contractual conditions

The dynamics between stakeholders can partially be explained through the concept of principal-agent theory, in which opportunistic behaviour is addressed, as actors, through rational behaviour, have the tendency to act in favour of their own goals rather than those of others (Verweij & Van Meerkerk, 2021). Therefore, the importance of well-written contracts is stressed, which should include risk allocation (by for example transferring risks from public to private parties) and sanctions in an effort to encourage the desired behaviour from the parties involved in infrastructural projects (Warsen et al., 2019). Studies have also suggested flexibility as a means of mitigating and allocating risks (Pellegrino, 2013). However, as risk allocation is shifted towards the private party, the cooperation between parties tends to decrease (Verweij, 2015). Sanctions can be strict, as long as they are applied consistently. Trust is a core determinant of the success of PPPs, and lack of trust and consequently willingness calls for serious mechanisms to account for the added uncertainty as a result of this (Abdullah & Khadaroo, 2020). Therefore, PPPs require actors to skilfully employ a variety of instruments that manage conflicts in order to, despite existing risks, ensure favourable contractual conditions for optimal performance. The improvement of these conditions has been found to be a gradual process (Koppenjan et al., 2022). Favourable contractual conditions could result in a positive effect on the end-user experience of PPPs, not just in the realm of infrastructure, but also in the realm of real estate (Majaama et al. 2008). Significant improvements in end-user experience are said to be gained in early design phases of projects (Torvinen & Ulkuniemi, 2016). Therefore they could also have an effect on the end-user experience of real estate PPP-projects realized through DBFMO-contracts. The selection of contractual conditions included in this research have been taken over from Warsen et al. (2019) , have been depicted in the conceptual model (Figure 1) and are described in Table 2.

Contractual condition	Goal
<i>Risk allocation</i>	Mechanism that prevents opportunistic behaviour
<i>Sanctions</i>	Encourage desirable behaviour from contractors
<i>Conflict management</i>	Prevent (the escalation of) conflicts between public and private partners using strategies
<i>Trust</i>	Mitigation of opportunistic behaviour, facilitator of information flow, stimulator of partner investment

Table 2 – A selection of four contractual conditions, taken over from Warsen et al. (2019)

2.3 Conceptual Model

The conceptual model for this research is depicted in figure 1. It is visualized through outlining the contractual conditions of risk allocation, sanctions, conflict management and trust (Warsen et al., 2019). These have been linked to the non-financial benefit of end-user experience through six indicators supported by features of the Ministry of Internal Affairs (2015), therefore drawing the connection between the dependent and independent variable (EPEC, 2011). The contractual conditions are considered to be the independent variable, while the non-financial benefits for the end-user experience are treated as dependent variables. Operating within the realm of public-private partnerships in real estate, the potential relationship between contractual conditions non-financial benefits for the end-user of said real estate projects has been analysed through a mixed-method case study of Rijkskantoor de Knoop, a Rijksvastgoedbedrijf property in Utrecht.

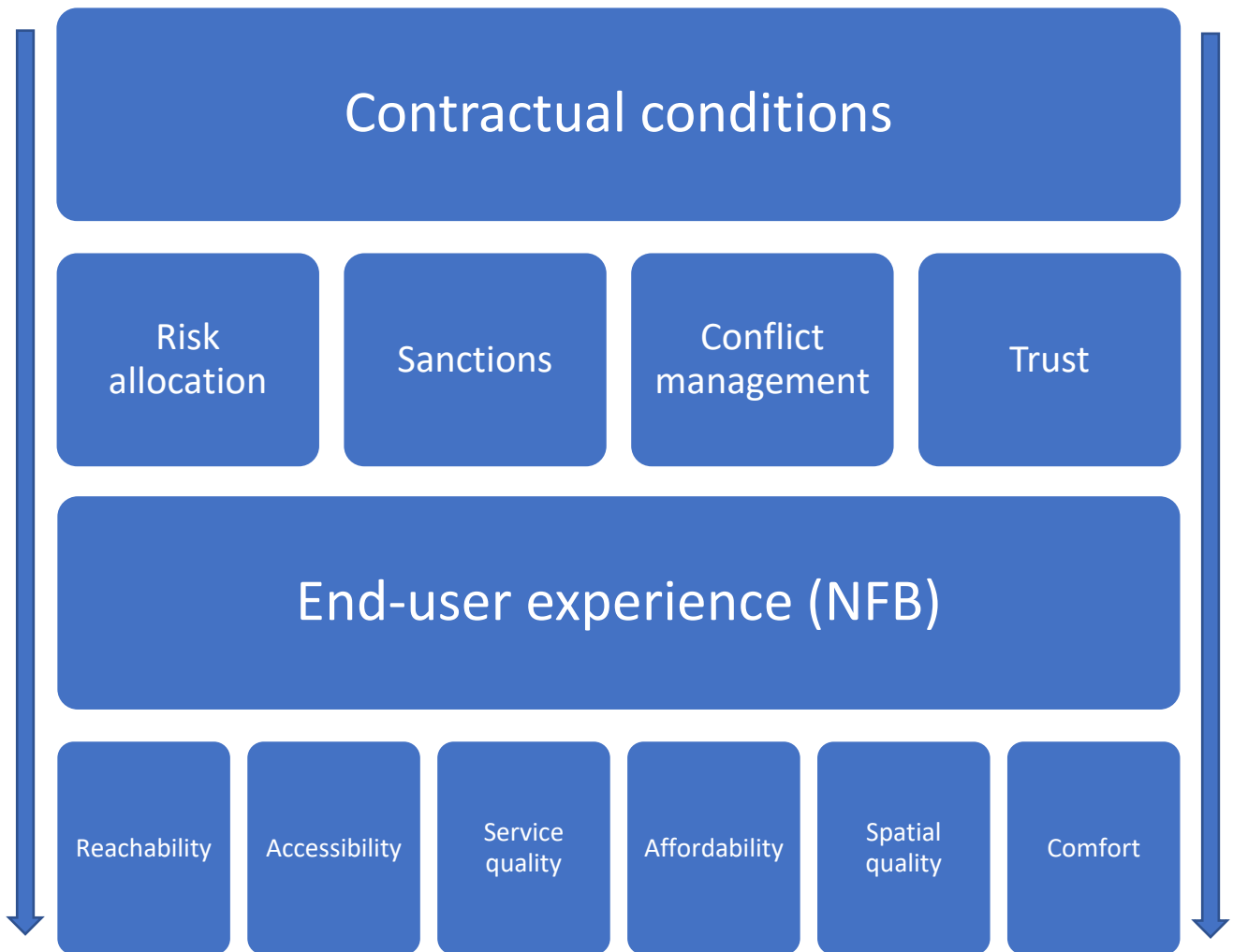


Figure 1 – Conceptual model

Chapter 3 – Methods

3.1 Research strategy

In order to provide answers to both the main research question and the sub-questions, a mixed-method case study has been employed, as visualized by the data collection instrument in Figure 2. This mixed-method case study is focused on Rijkskantoor De Knoop in Utrecht, a Rijksvastgoedbedrijf property realized through a DBFMO-contract by consortium R-Creators, consisting of Strukton, Ballast Nedam and Facilicom (Rijksvastgoedbedrijf, 2022a). Since construction was finished in 2018 by Strukton and Ballast Nedam, the building has entered its exploitation phase. Given the scope of the DBFMO-contract and the recent completion of construction and the project currently being in use, Rijkskantoor de Knoop presents itself as a suitable case study for this research.

In order to describe the independent variable, four contractual conditions (Table 1) have been selected from the fuzzy set qualitative comparative analysis (QCA) conducted by Warsen et al. (2019). Through a set of semi-structured in-depth interviews, both public and private stakeholders involved in the case study will be asked about their considerations with relation to the contractual conditions surrounding the PPP-project. Given the qualitative nature of the data that was required to explain the independent variable, this data collection method is relevant for this research. While the online interviews are recorded using audio recording software, the in-person interviews are recorded with a dedicated microphone. The audio files that form the product of the interviews have been transcribed using Amberscript and checked for potential errors. These transcripts are then used as a basis for coding using ATLAS.ti, as visualized in the independent variable section of the coding tree in Appendix 4.

The indicators of contractual conditions have been linked to the NFBs of end-user experience as contextualized in the publication by the EPEC (2011), using indicators of end-user experience explained by the Ministry of Internal Affairs (2015) as dependent variable, which are adjusted to the perspective of the end-user of PPP-projects of the Rijksvastgoedbedrijf. As surveys have a low threshold and are time-efficient on top of being very suitable for ordinal variables, it is the most effective data collection method to gain insight into the end-user experience of a large number of respondents. The software used for the data collection is Qualtrics. Upon completion of the survey, all recorded responses were exported to Microsoft Excel. Here, the raw data was processed so it could be translated and visualized through bar charts in Chapter 4.

3.2 Data collection instrument

The central question and accompanying secondary questions will be answered through primary data collection. While secondary question 1 describes the dependent variable, secondary question 2 describes the independent variable. Secondary question 3 aims to find the underlying relationship between the dependent and independent variable.

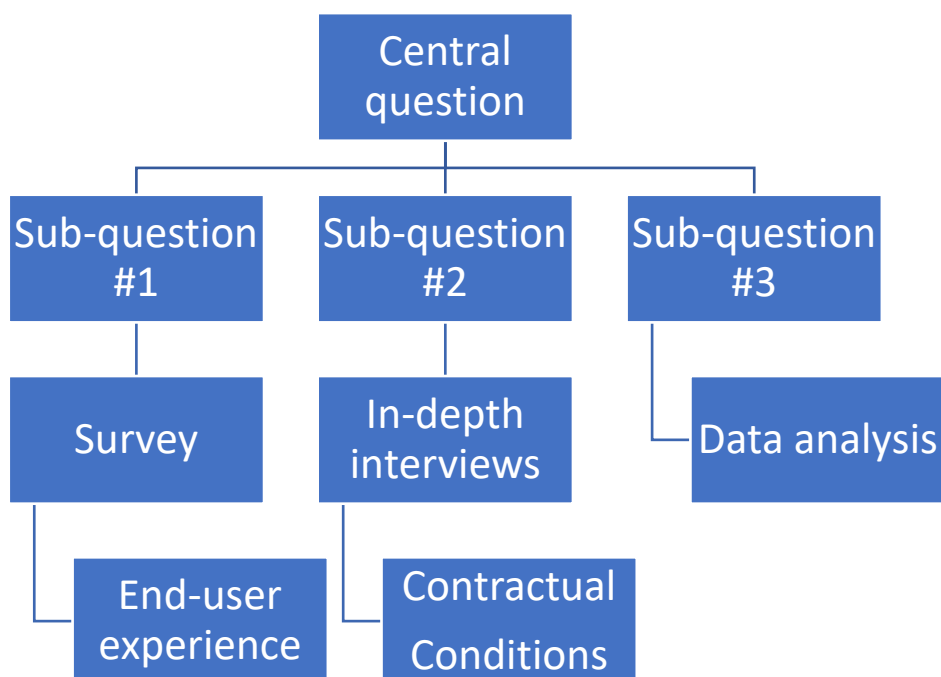


Figure 2 – Data Collection Instrument

Dependent variable: secondary question 1

Independent variable: secondary question 2

Relationship dependent and independent variable: secondary question 3

3.3 Survey on end-user experience

In an effort to shed light on the end-user experience of public-private partnerships in real estate, the dependent variable of this research, a survey has been conducted among end-users of Rijkskantoor de Knoop, the subject of this case study. In Appendix 1, this survey can be found. Upon entering or leaving Rijkskantoor de Knoop, participants were interrogated about their end-user experience with regards to the RVB property. After the participants expressed verbal consent, the purpose of their interaction with Rijkskantoor de Knoop, varying from working there (employee), paying a visit (visitor) to performing facility management (staff) was determined. The majority of the survey covered six indicators of end-user experience, namely reachability, accessibility, service quality, affordability, spatial quality and comfort (Table 1; Appendix 1). These indicators have been chosen for their coverage of end-user experience and their link to the ambitions of the Ministry of Internal Affairs (2015) with regard to the features of governmental buildings, including those realized by the Rijksvastgoedbedrijf through DBFMO-contracts. For each of this six indicators, participants were asked to rank their end-user experience from Very unsatisfying, unsatisfying, neutral, satisfying to very satisfying. This mode of ranking aided to the low threshold of surveying. This way, the case study is provided with low-threshold, first-hand feedback of end-users of Rijkskantoor de Knoop. The survey was concluded by an open question, where participants were given the opportunity to express additional remarks about the property.

Amount of participants	Interviewer	Date of survey	Location of survey
45	Frenk van Stipriaan	13-06-2022	Rijkskantoor de Knoop, Utrecht

Table 3 – Survey overview

3.4 In-depth interviews about contractual conditions

In order to gain insight into the contractual conditions surrounding DBFMO-contracts of the Rijksvastgoedbedrijf, in-depth interviews will be conducted with representatives of stakeholders from the public sector and the private sector. Three in-depth interviews have been conducted with key

managers involved in the DBFMO-contract across different stakeholders in an effort to gain insight into the way contractual conditions as described in Table 2 make a contribution to the NFB of end-user experience as described in Table 1. A full overview of the interview guide can be found in Appendix 2. Additionally, an overview of interviewees is depicted in Table 4. During the interview, questions as described in Appendix 2 have been asked, through which different stakeholder views and interests in terms of contractual conditions and their respective desired end-user experience become clear. Though the questions formed the main guideline throughout the duration of the interview, the interviewees have been allowed to deviate from the questions to provide additional insights with relation to the targeted data and indicators.

Interviewee	Abbreviation	Interviewer	Date of interview	Location of interview	Duration
PPP Project Manager - Rijksvastgoedbedrijf	IV1	Maarten Heikens	13-06-2022	Online	30 min.
PPP & DBFMO Project Manager - Strukton	IV2	Frenk van Stipriaan	27-06-2022	Online	43 min.
Product Manager PPP - Belastingdienst	IV3	Frenk van Stipriaan	07-07-2022	DUO Groningen	74 min.

Table 4 – In-depth interviews overview

3.5 Data analysis

Using the results of the in-depth interviews and linking them with the indicators for non-financial benefits of PPPs as described by EPEC (2011) through data analysis, the dependent variable can be linked to the independent variable in order to describe a relationship between the two. The end-user experience and contractual conditions together thus provide an answer through sub-question #3 through data analysis. Together with sub-questions #1 and #2, the central question of this research will be answered, to determine if contractual conditions influence end-user experience of a Rijksvastgoedbedrijf PPP-project in a positive manner, leading to NFBs provided by the public-private partnership type of a DBFMO contract. This has been achieved through the use of a cross table that draws linkages between collected data about the indicators of both dependent and independent variables. The cross table indicates a positive, negative or non-existent relationship between the indicators. Next to this, cross-references have been made between quotes of interviewees and respondents to further underline a relationship between the indicators of end-user experience and contractual conditions.

3.6 Ethical considerations

In order to ensure maximum objectiveness within the research, a number of ethical considerations have been made. The researcher has no personal connections with or within the realm of public-private partnerships in real estate, and therefore no conflict of interest. The researcher also ensures adequate data management behind password protection. For the survey, participants have been approached in person, and prior to conducting the survey, these participants have been asked for verbal consent. Their contribution to the research has been completely voluntary and anonymous. As for the in-depth interviews, potential interviewees have been approached through phone calls, e-mail or LinkedIn. Before the start of an interview, the consent form in Appendix 3 was signed, providing written consent. An option to provide interviewees with a copy of the transcript of their interview was offered.

Chapter 4 – Results

In this chapter, the results of both the survey and the in-depth interviews will be presented and discussed. Each of the three sub-chapters handles one sub-question. First the dependent variable and respective survey will be analysed. Secondly, the findings on the independent variable will be discussed whilst also drawing a connection to the end-user experience. After this, a summary and visualization of the relationship between the two will be presented in the final sub-section of this chapter.

4.1 End-user experience

The first sub-chapter of Chapter 4 encompasses the survey linked to research sub-question #1 (Figure 2). For the survey, 45 responses have been collected on the 13th of June, 2022 around Rijkskantoor de Knoop in Utrecht. Question 3 on accessibility has been left out of the discussion, as it failed to produce a relevant connection to both end-user experience and the contractual conditions.

Question 1

The first question considered the role of the respondent at Rijkskantoor de Knoop, a nominal variable. With this question, the respondents were divided into three groups: employees working at the Rijkskantoor, visitors and staff. A distinction between employees and staff should be noted: Employees work for the governmental agencies located in the property while staff are solely responsible for maintenance of the property in the form of security, catering, cleaning and other maintenance. This allows for a difference in satisfaction in the rest of the survey to be described between these three groups.

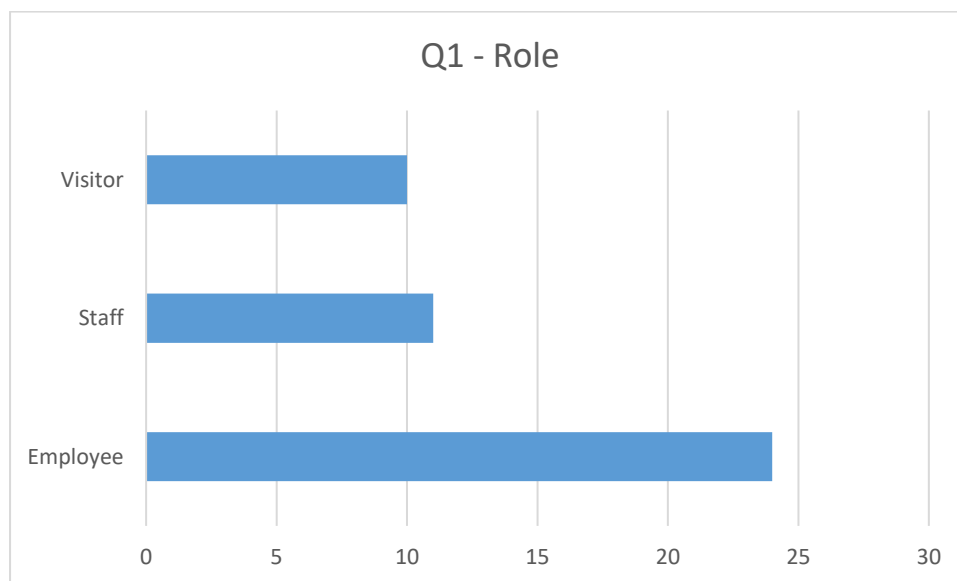


Figure 3 – Q1 What is your *role* at Rijkskantoor de Knoop in Utrecht?

Question 2

The second question marks the first of six ordinal variables included in this research. The question concerns the reachability of Rijkskantoor de Knoop, a key feature the Ministry of Internal Affairs (2015) attributes to government buildings. The property is strategically located within short walking distance of Utrecht Centraal, which forms the centre of the Dutch railway system (Debrezion et al., 2011). The importance of this strategic location is also stressed by IV3, stating that Rijkskantoor de Knoop serves as meeting place for employees all over the Netherlands. The answers of the respondents reflect this choice of location, with the majority being very satisfied with reachability. None of the respondents replied 'Unsatisfied' or 'Very unsatisfied' to this question of the survey. This question marks the biggest amount of satisfaction across all indicators of end-user experience included in this research.

Some respondents even expressed additional remarks towards the high-quality public transport connection in Question 8 (R8, R14, R21).

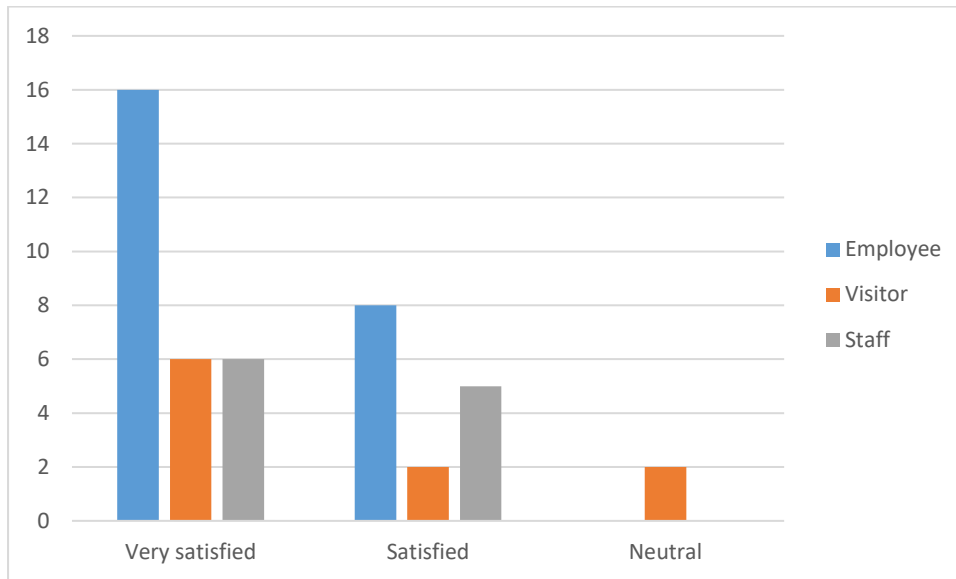


Figure 4 – Q2 How satisfied are you with the *reachability* of the property?

Question 4

In the fourth question of the survey, respondents were asked about their satisfaction with relation to the service quality of de Knoop. Service quality includes aspects such as security, cleaning, catering, sanitary and other services performed at the property to maintain it. As visualized in Figure 6 and similar to Question 3, a difference in sentiment towards this indicator can be found across the three groups of respondents. Staff in particular held the service quality in very high regard, with 9 out of 10 staff responding with ‘Very satisfied’. It should be considered that since the staff is responsible for service quality, they will generally express a very positive opinion on their own work. Employees followed this trend, though in a less significant manner. Visitors expressed less positive feelings towards service quality.

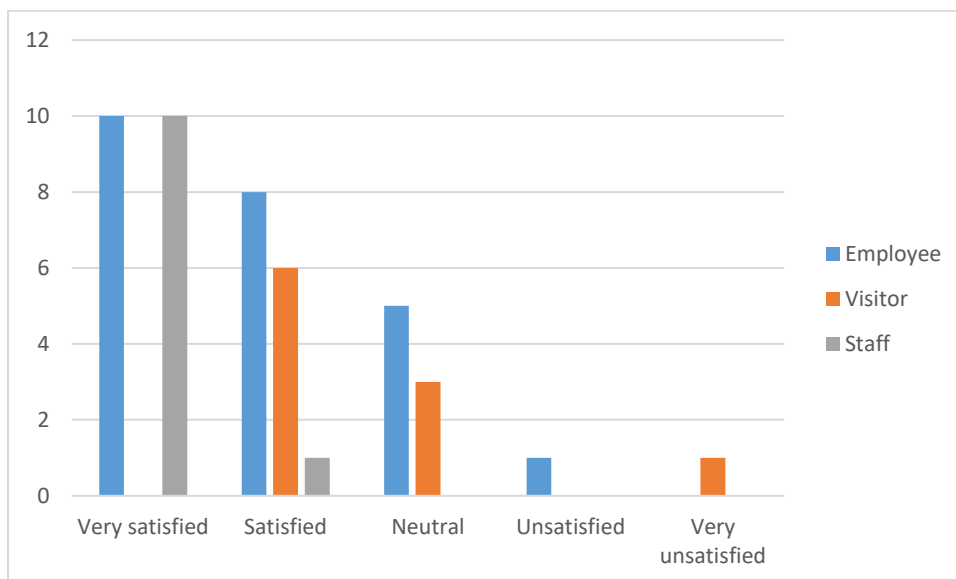


Figure 6 – Q4 How satisfied are you with the *service quality* of the property?

Question 5

In this question, respondents were able to share their satisfaction when it comes to affordability at the property. This variable encompasses all costs involved in the end-users engaging with Rijkskantoor de Knoop, for example by paying for lunch. As visualized by Figure 7, the majority respondents answered 'Neutral' when considering affordability, stating that it is something everyone will have to deal with. A small amount was relatively satisfied with the costs involved. On the contrary, there were also respondents who were not satisfied with affordability, with a respondent (R4) going as far as stating that "Everything is so expensive now" (Question 8). With the exception of some flexible agreements, the Ministry of Internal Affairs mentions no explicit features as to how affordability should be implemented at government buildings. In Question 5, the lowest amount of satisfaction was recorded across all six indicators of end-user experience.

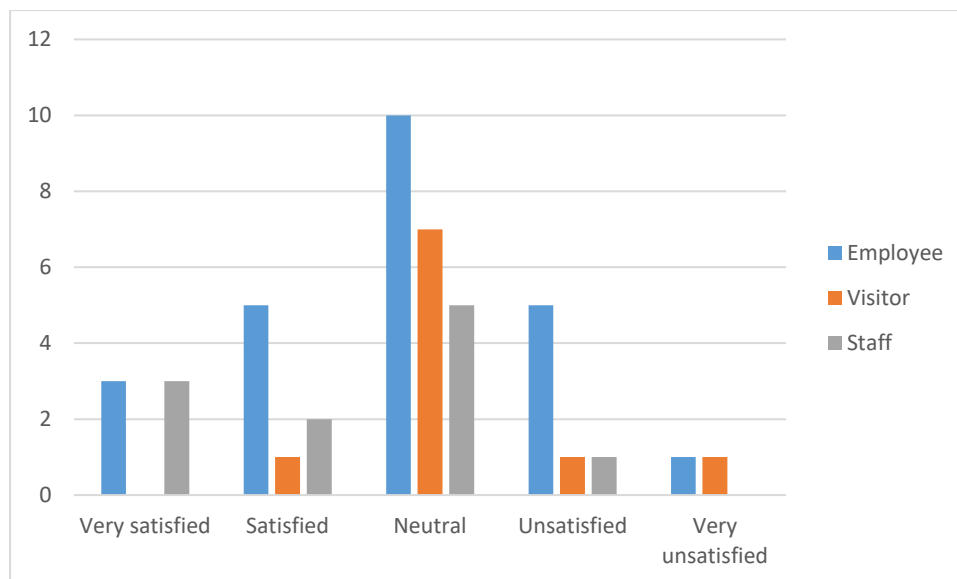


Figure 7 – Q5 How satisfied are you with the **affordability** at the property?

Question 6

Respondents were asked about spatial quality at Rijkskantoor de Knoop in Question 6. With the variable spatial quality, this research is aimed at finding the perception of space at the property, if the building is perceived as inviting or intimidating and if there is enough of space available. There were mixed results across visitors and staff. Employees were generally very satisfied with the spaciousness of the property, though some did not find it to be aesthetically pleasing. While some respondents generally appreciated the modern look of the building with extensive use of glass, other respondents disregarded the building as a "glass box" (Table 5). The Ministry of Internal Affairs (2015) strives for government properties such as Rijkskantoor de Knoop to have a modern look whilst also being sustainable and durable in their use.

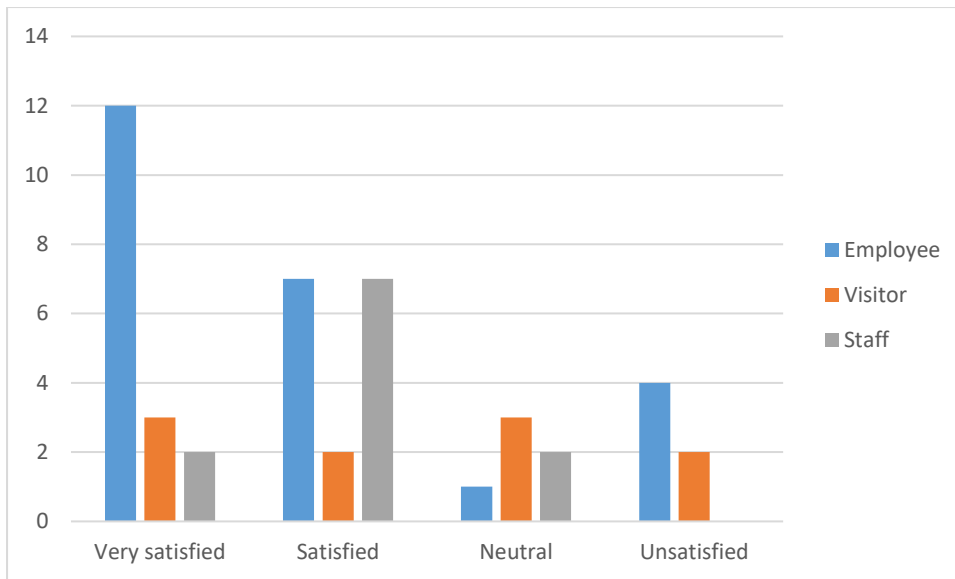


Figure 8 – Q6 How satisfied are you with the *spatial quality* of the property?

Question 7

The seventh question of the survey covered the final ordinal variable value of the survey, comfort. The quality of the indoor environment is said to be crucial to the comfort and thus experience of the end-user (Bluyssen, 2009), with acoustics in particular (Ottobre et al., 2019). Therefore, the Ministry of Internal Affairs (2015) aims actively contribute to the well-being of its users by creating a healthy working environment. The answers of the respondents in Figure 9 seem to reflect the successful implementation of this ambition, as responses across all groups can be described as generally positive. Sufficient light is said to be present in the building through reliance on glass, the temperature is well-regulated and there is no mention of noise nuisance, as IV2 feels the urgency to deliver high-performance climate control installations to the property.

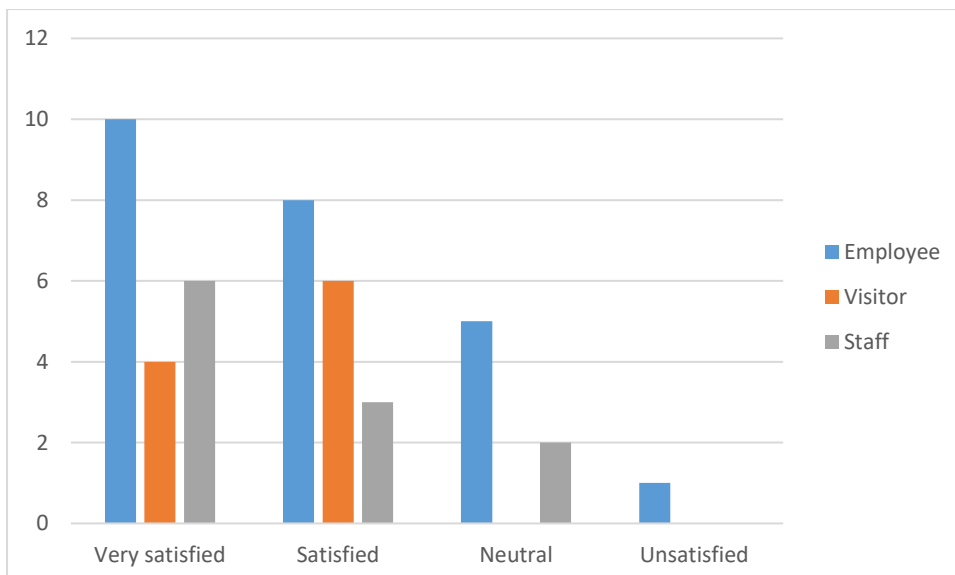


Figure 9 – Q7 How satisfied are you with the *comfort* of the property?

Question 8

In the final question of the survey, participants were asked about additional remarks about their end-user experience of Rijkskantoor de Knoop in Dutch. Their responses have been summarized in Table 5. As this was an open question, 21 out of 45 respondents provided a response. Two respondents

experienced issues with regard to accessibility (R5 & R19). When it comes to affordability, two respondents (R4 & R24) expressed their frustration towards price levels. Regarding spatial quality, remarks were mixed, with some appreciating the building (R11, R15, R29 & R33) while others did not feel satisfied with the spatial quality (R3, R8, R12 & R28). In the following sub-chapter, remarks from Table 5 have been linked to quotes of interviewees that support or contradict the end-user experience findings of the survey.

	Respondent	Remark
1	R3	Binnenkant is mooier dan de buitenkant.
2	R4	Te duur, net als alles eigenlijk.
3	R5	Kon juiste ingang niet vinden.
4	R6	Hele goede beveiliging (<i>Beveiliger</i>)
5	R8	Ligging bij Utrecht Centraal perfect, intimiderend gebouw.
6	R11	Heel mooi geworden.
7	R12	Groot glazen hok.
8	R14	Utrecht Centraal om de hoek.
9	R15	Mooie werkplek.
10	R18	Geen rokersplek.
11	R19	Onduidelijk aangegeven.
12	R21	Vlakbij Utrecht Centraal
13	R23	Onvriendelijke beveiliging
14	R24	Beetje duur.
15	R27	Gedoe met parkeren.
16	R28	Glazen doos
17	R29	Mooi gebouw, maar ik lunch er nooit.
18	R33	Heel netjes.
19	R35	Goed geregeld, maar had gezelliger gekund.
20	R39	Had wel wat gezelliger gekund.
21	R41	Goed onderhouden

Table 5 – Q8 Do you have any further points of improvement or *remarks*?

4.2 Contractual conditions

In this sub-chapter, the results from the in-depth interviews will be discussed, which will aim to answer the second sub-question of this research: *What are the contractual conditions of the PPPs of the Rijksvastgoedbedrijf?* Three interviews have been conducted with different stakeholders as described in Table 5, while the contractual conditions addressed in every interview have been depicted in Table 6. The findings of these interviews about the four indicators of contractual conditions will be discussed with relation to their effect on end-user experience.

	Risk allocation	Sanctions	Conflict management	Trust
IV1	X			X
IV2	X	X	X	X
IV3	X	X	X	X

Table 6 – Overview of interviewee mentions of contractual conditions

As a DBFMO-contract with a duration of twenty years, PPP-project Rijkskantoor de Knoop involves a multitude of private and public stakeholders throughout different phases of the project, potentially resulting in complications. IV2 stated that early engagement of the facility management company in both the design and construction phase significantly contributed to service quality in the maintenance

phase, which had a positive impact on end-user experience (Figure 6; Majaama et al. 2008). A private stakeholder served as the architect for the building that produced a design which was met with contradicting views by respondents, as some aesthetically pleased Rijkskantoor de Knoop (R11, R15 & R29), while others viewed the building as “A glass box” (R12 & R28), causing doubts surrounding the spatial quality.

Another private stakeholder responsible for facility management, Facilicom, was given the ability to increase the budget at greater financial risk for certain services, given that the service quality would be increased. The risk allocation for this arrangements was agreed upon as a responsibility of Facilicom. These decisions are somewhat reflected by end-users, indicating that the property is “very tidy” (R33) and “well-maintained” (R41). This supports findings by Torvinen & Ulkuniemi (2016) that stress early engagement of the end-user in a PPP-project, though IV2 mentioned that the client (Rijksvastgoedbedrijf) is not always fully aware of the interests of the end-user. The risk allocation within the organization behind the PPP-project however was a concern for IV2, stating that “the client prefers to transfer risks to the contractor” (Verweij, 2021).

An early decision was made to keep lines short between the public and private stakeholder, for example by creating a meeting space at the construction site where changes in the design could be discussed and issues could be resolved before they escalated, aiding to trust among parties through adequate conflict management. This was recognized as a key factor for the success of the project by both IV2 and IV3. This trust was further supported by the clarity of the contracts, ensuring that everyone involved “knew the rules of the game”, as stated by IV2. This opinion is shared by the project manager of the Rijksvastgoedbedrijf (IV1), who mentioned that great efforts were made to develop an output specification for the contractor that ensured both clarity but also left room for flexibility (Pellegrino, 2013). The flexibility of a DBFMO-contract was found to be crucial to performance and conflict management by IV3, as “situations change over the course of the contract and need to be accounted for”. Arbitration has been present throughout the PPP-project, should issues that needed to be resolved, as in certain cases “experts refused to understand each other because they are too persistent in their point of view” (IV2), as “what’s normal for a client does not necessarily have to be normal for a contractor” (IV2). When these issues arose, they could be taken to a higher organizational level within contractual conditions where they could be resolved without applying sanctions. This mechanism however was rarely ever used and serious escalations were prevented through appropriate agreements (IV2 & IV3). These agreements prevented opportunistic behaviour which could potentially result in distrust (Verweij & Van Meerkerk, 2021). Instead of parties acting in favour of their own interests, there was considerable awareness of the interests of each other (IV3), which laid the foundation for a common interest, aiding to the performance of the DBFMO-contract. This foundation enabled continuity, something everyone involved in the organization can benefit from, as stated by IV2.

The performance of the PPP-projects was assessed by the Rijksvastgoedbedrijf by conducting satisfaction surveys among facility management, providing data to the contractor for insight. This information is valuable to the performance of the property, as potential weak spots in service quality were identified and resolved, further preventing sanctions for the contractor. For example, by identifying and fixing climate control installations that performed poorly, the level of comfort at Rijkskantoor de Knoop could be improved. Mechanisms like these serve as an incentive for the contractor to deliver high-quality buildings and services, as making a profit is the main motivation of a private stakeholder for a DBFMO-contract, though not “through exploiting end-users” (IV2), therefore considering affordability. This is recognized by the public stakeholder (IV3), stating that “increased costs can be justified as long as service quality reflects this”.

4.3 The relationship between contractual conditions and end-user experience

In the third and final sub-chapter of this section, the relationship between sub-question #1 and #2 will be summarized and visualized through a cross table, therefore providing an answer to sub-question #3 and consequently the central question of this research. Table 7 summarizes the relationships between contractual conditions and end-user experience discussed and analysed in the previous two sub-chapters. A plus indicates a positive relationship of a contractual condition on an indicator of end-user experience, while a minus indicates a negative and a circle indicates no relationship to be found following this research. While indicators of contractual conditions trust positively influences 4 out of 6 indicators of end-user experience, risk allocation influences three, of which one negatively. Reachability and accessibility are found to be indicators that are least related to and influenced by contractual conditions in this research. Overall, the findings show a majority of indicators have a positive relationship.

Relationship DV/IV		Contractual conditions			
		<i>Risk allocation</i>	<i>Sanctions</i>	<i>Conflict management</i>	<i>Trust</i>
End-user experience	<i>Reachability</i>	O	O	O	+
	<i>Accessibility</i>	O	O	O	O
	<i>Service quality</i>	+	+	+	+
	<i>Affordability</i>	-	+	+	+
	<i>Spatial quality</i>	O	O	+	+
	<i>Comfort</i>	+	+	O	O

Legend:

Positive relationship: +

Negative relationship: -

No relationship: O

Table 7 – Cross table of relationship between indicators of contractual conditions and end-user experience

Chapter 5 – Discussion, reflection and recommendations for future research

This research aims to make a valuable contribution to scientific knowledge surrounding public-private partnerships in real estate projects of the Rijksvastgoedbedrijf. This mixed-method case study of Rijkskantoor de Knoop, achieves this by on one hand providing insight into an exemplary case of stakeholder experience with indicators of contractual conditions and on the other hand by shedding light on end-user experience of Rijksvastgoedbedrijf properties on the individual level (Ministry of Internal Affairs, 2015; Warsen et al. 2015). Existing literature suggests that a connection between these variables is plausible, but that building this connection is found to be a gradual process (Koppenjan et al., 2022; Batra, 2022), a finding that is shared by interviewees as factors like trust, continuity and common interest are found to be favourable but can be improved upon. The EPEC (2011) stresses this enhanced quality that NFBs such as end-user experience that PPP-projects can deliver as opposed to conventional procurement. This is in line with the flexibility of the DBFMO-contract of this case study, as this allowed for public and private stakeholders to make amendments that otherwise would not have been possible. The Rijksvastgoedbedrijf also recognizes this potential, and aims to improve contractual conditions by building on experience after every PPP-project (Neerlands Diep, 2019). With this knowledge, arguments can be made for the realization of more future real estate projects using DBFMO-contracts for the Rijksvastgoedbedrijf and other real estate agencies in the Netherlands and abroad.

Though the research is framed as a mixed-method case study, involving both qualitative and quantitative data collection methods, it remains sensitive to research bias. On top of the ability of the researcher to select potential respondents, the research heavily relies on the willingness of stakeholders to conduct interviews and end-users to conduct surveys, the first of which proved to be more challenging than the latter. Despite approaching 18 potential interviewees, the research only includes three interviews, partly hindering insight into contractual conditions limiting the scope of the research. Future research could consider cooperation with both public and private stakeholders instead of serving as an outside party in order to gain more in-depth insight in this research topic, and further delve into contractual conditions enabling high-performing PPPs or inspect the importance of end-user experience in real estate DBFMO-contracts while also drawing linkages between the two variables.

Chapter 6 – Conclusion

In this final chapter, an answer will be provided to the main research question: *What contractual conditions enable non-financial benefits for end-user experience of Dutch public-private partnerships in real estate projects of the Rijksvastgoedbedrijf?* Through holding a survey amongst end-users and conducting in-depth interviews with public and private parties involved in the case study, this research aimed to describe the potential underlying relationship between contractual conditions and end-user experience within PPP-projects of the Rijksvastgoedbedrijf in the form of a mixed-method case study.

As for the first sub-question regarding the end-user experience of real estate projects of the Rijksvastgoedbedrijf, the findings of the survey included in this research suggest that end-user experience, especially when it comes to accessibility and service quality, is generally positive. It can therefore be concluded that the Dutch government largely succeeds in realizing their ambitions when it comes to creating high-performing government properties that have a positive end-user experience, especially with regard to service quality, while consensus on spatial quality is divided. Regarding the second sub-question of this research about contractual conditions, the contractual conditions of this PPP-project as found through the in-depth interviews seem to mainly prioritize organizational experience as opposed to end-user experience, though providing enhanced quality compared to conventional procurement. Eventually, this connection should result in positive effect on end-user experience, but a direct connection is found to be missing. This indicates that a relationship between contractual conditions in PPP-projects and the experience of the end-user is present, though further engagement of the end-user throughout the duration of a DBFMO-contract is required to enhance the perceived quality of RVB-properties, providing an answer to the third and final sub-question of the research. Despite this research being a mixed-method case study and therefore only having analysed one DBFMO-contract of the Rijksvastgoedbedrijf and can therefore not speaking for the entirety of PPP-projects that have been employed, this research serves as a basis for the RVB and other organizations in pro-actively considering positive end-user experience as a desirable goal in the context of contractual conditions.

References

- Abdullah, A. & Khadaroo, I. 2020, "The trust-control nexus in public private partnership (PPP) contracts", *Journal of Accounting and Public Policy*, vol. 39, no. 6.
- Batra, R. 2022, "Review of public–private partnerships across building sectors in nine European countries: Key adaptations for PPP in housing", *Engineering, Construction and Architectural Management*.
- Bluysen, P. 2009, "The indoor environment handbook: How to make buildings healthy and comfortable" in *The Indoor Environment Handbook: How to Make Buildings Healthy and Comfortable*, pp. 1-811.
- CBS (2021). *Kapitaalgoederenvoorraad; bedrijfstakken, nationale rekeningen*. Retrieved on March 4, 2022 from <https://www.cbs.nl/nl-nl/cijfers/detail/84328NED> Netherlands: Centraal Bureau voor de Statistiek.
- Debrezion, G., Pels, E. & Rietveld, P. 2011, "The impact of rail transport on real estate prices: An empirical analysis of the Dutch housing market", *Urban Studies*, vol. 48, no. 5, pp. 997-1015.
- Demirel, H.C., Leendertse, W. & Hertogh, M. 2015, "Pre-contract assumptions in practice: A qualitative study on the flexibility to changes in DBFM contracts - Blankenburgverbinding project case study", *Proceedings of the 31st Annual Association of Researchers in Construction Management Conference, ARCOM 2015*, pp. 53.
- EPEC (2011). *The Non-Financial Benefits of PPPs*. European PPP Expertise Centre, Luxembourg.
- EPEC (2015). *PPP Motivations and Challenges for the Public Sector*. European PPP Expertise Centre, Luxembourg.
- Hodge, G.A., Greve, C. & Boardman, A.E. 2010, "International handbook on public-private partnerships" in *International Handbook on Public-Private Partnerships*.
- Hodge, G.A. & Greve, C. 2017, "On Public–Private Partnership Performance: A Contemporary Review", *Public Works Management and Policy*, vol. 22, no. 1, pp. 55-78.
- Kazak, J., Van Hoof, J., Świąder, M. & Szewrański, S. 2017, "Real estate for the ageing society - The perspective of a new market", *Real Estate Management and Valuation*, vol. 25, no. 4, pp. 13-24.
- Kondapalli, S. & Deepak, S. 2017, "Identifying end-users' expectations from Public Private Partnerships", *6th CSCE-CRC International Construction Specialty Conference 2017 - Held as Part of the Canadian Society for Civil Engineering Annual Conference and General Meeting 2017*, pp. 862.
- Koppenjan, J. *et al.* (2022) "The Performance of Public–Private Partnerships: An Evaluation of 15 Years DBFM in Dutch Infrastructure Governance", *Public Performance & Management Review*, pp. 1–31. doi:[10.1080/15309576.2022.2062399](https://doi.org/10.1080/15309576.2022.2062399).
- Majamaa, W., Junnila, S., Doloi, H. & Niemistö, E. 2008, "End-user oriented public-private partnerships in real estate industry", *International Journal of Strategic Property Management*, vol. 12, no. 1, pp. 1-17.
- Medimagh, S. & Triki, A. 2019, "The PPP performance based on the co-creation with customers", *Built Environment Project and Asset Management*, vol. 9, no. 5, pp. 642-654.
- Ministry of Internal Affairs. (2015). *Factsheet Fysieke Werkomgeving Rijk (FWR)*. Retrieved June 10, 2022 from https://www.rijksvastgoedbedrijf.nl/binaries/rijksvastgoedbedrijf/documenten/richtlijn/2015/01/01/factsheet-fysieke-werkomgeving-rijk-fwr/LR_82526_Leaflet_fysieke_werkomgevingV2.pdf . Netherlands: Rijksvastgoedbedrijf

- Mota, J. & Moreira, A.C. 2015, "The importance of non-financial determinants on public-private partnerships in Europe", *International Journal of Project Management*, vol. 33, no. 7, pp. 1563-1575.
- Neerlands Diep. (2019). *Evaluatiespiegel Samenwerking De Knoop*. Neerlands Diep Academie voor publieke bouw- en infraprojecten, Den Haag.
- Ottobre, R.D., Ottobre, M.L. & Arias, A.Y. 2019, "Office acoustics: Problems and solutions", *INTER-NOISE 2019 MADRID - 48th International Congress and Exhibition on Noise Control Engineering*.
- Pellegrino, R., Vajdic, N. & Carbonara, N. 2013, "Real option theory for risk mitigation in transport PPPs", *Built Environment Project and Asset Management*, vol. 3, no. 2, pp. 199-213.
- Rijksvastgoedbedrijf (2022a). *Utrecht, Rijkskantoor de Knoop*. Retrieved June 9, 2022 from <https://www.rijksvastgoedbedrijf.nl/vastgoed/vastgoed-in-beheer/utrecht-rijkskantoor-de-knoop> . Netherlands: Rijksvastgoedbedrijf
- Rijksvastgoedbedrijf (2022b). *PPS-huisvestingsprojecten*. Retrieved on March 3, 2022 from <https://www.rijksoverheid.nl/onderwerpen/publiek-private-samenwerking-pps-bij-het-rijk/pps-projecten/pps-huisvestingsprojecten> . Netherlands: Rijksvastgoedbedrijf
- Siemiatycki, M. & Farooqi, N. 2012, "Value for money and risk in public-private partnerships", *Journal of the American Planning Association*, vol. 78, no. 3, pp. 286-299.
- TenderNed (2022). *Over TenderNed*. Retrieved March 10, 2022 from <https://www.tenderned.nl/cms/over-tenderned#> . Netherlands: TenderNed
- Torvinen, H. & Ulkuniemi, P. 2016, "End-user engagement within innovative public procurement practices: A case study on public-private partnership procurement", *Industrial Marketing Management*, vol. 58, pp. 58-68.
- Verweij, S. 2015, "Producing satisfactory outcomes in the implementation phase of PPP infrastructure projects: A fuzzy set qualitative comparative analysis of 27 road constructions in the Netherlands", *International Journal of Project Management*, vol. 33, no. 8, pp. 1877-1887.
- Verweij, S. & van Meerkerk, I. (2021), "Do public-private partnerships achieve better time and cost performance than regular contracts?", *Public Money & Management*, 41:4, 286-295, DOI: 10.1080/09540962.2020.1752011
- Warsen, R., Nederhand, J., Klijn, E.H., Grotenbreg, S. & Koppenjan, J. 2018, "What makes public-private partnerships work? Survey research into the outcomes and the quality of cooperation in PPPs", *Public Management Review*, vol. 20, no. 8, pp. 1165-1185.
- Warsen, R., Klijn, E.H. & Koppenjan, J. 2019, "Mix and match: How contractual and relational conditions are combined in successful public-private partnerships", *Journal of Public Administration Research and Theory*, vol. 29, no. 3, pp. 375-393.

Appendix 1 – Interview guide (survey)

1. Welke rol vervult u bij het Rijkskantoor De Knoop in Utrecht?
 - a. Personeel (Werkgever, werknemer)
 - b. Bezoeker (Afspraak, klant, vergadering)
 - c. Exploitatie (Facilitair, schoonmaak, catering, beveiliging)
2. Hoe tevreden bent u over de *bereikbaarheid* van het gebouw (Locatie, OV-verbinding, parkeergelegenheid)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
3. Hoe tevreden bent u over de *toegankelijkheid* van het gebouw (Bewegwijzering, vindbaarheid, hellingen, (rol)trappen, liften, toegang voor mindervaliden)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
4. Hoe tevreden bent u over de *voorzieningen* en exploitatie van het gebouw (Catering, sanitair, zit- en werkplek, schoonmaak, beveiliging)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
5. Hoe tevreden bent u over de *betaalbaarheid* van het gebouw (Parkeerkosten, kosten voor eten en drinken, andere diensten tegen betaling)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
6. Hoe tevreden bent u over de *ruimtelijke kwaliteit* van het gebouw (Veel/weinig ruimte, (te) groot/klein, (on)aantrekkelijk, uitnodigend/intimiderend)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
7. Hoe tevreden bent u over het *comfort* van het gebouw (Temperatuur, geluid, licht)?
 - a. Zeer tevreden
 - b. Tevreden
 - c. Neutraal
 - d. Ontevreden
 - e. Zeer ontevreden
8. Heeft u nog verdere punten van verbetering of opmerkingen?

Appendix 2 – Interview guide (in-depth interviews)

Deel 1 – Introductie

- Wat kunt u mij vertellen over uw functie bij (publieke partij/private partij)?
- Op welke manier bent u betrokken bij het PPS-project Rijkskantoor de Knoop?
- Wat is de rol van (publieke partij/private partij) binnen dit PPS-project?
- Welke andere publieke/private partijen zijn er nog meer betrokken bij dit PPS-project?
- Wat is de looptijd van het contract?

Deel 2 – Contractuele condities

- Hoe heeft u het samenwerkingsproces binnen dit project ervaren?
- Op welke manier zijn de afspraken in het contract hierop van invloed geweest?
 - Welke invloed hebben de contractuele condities gehad op de *prestatie* van het DBFMO-contract? (toegevoegde waarde)
 - Welke invloed hebben de contractuele condities gehad op *conflictmanagement* binnen het DBFMO-contract?
 - Welke invloed hebben de contractuele condities gehad op het *gevoel van vertrouwen* tussen de partijen?
 - Welke invloed hebben de contractuele condities gehad op het *verdelen van onderlinge risico's* (verantwoordelijkheid, sancties)?
 - Welke invloed hebben de contractuele condities gehad op de *eindgebruikerservaring* (personeel, bezoekers, etc.)?
 - Was er sprake van *sancties* binnen het DBFMO-contract?

Deel 3 – Eindgebruikerservaring

- Is de ervaring van de eindgebruiker van Rijkskantoor de Knoop meegenomen in de afspraken van het contract?
 - Zo ja, met welke reden is eindgebruikerservaring opgenomen in het contract?
 - In hoeverre is dit uitgewerkt en wordt dit als een prioriteit gezien?
 - Zo nee, met welke reden is eindgebruikerservaring niet opgenomen in het contract?
 - Wat zijn de prioriteiten die wel worden gesteld in het contract?
- Draagt een PPS-project op een positieve manier bij aan de eindgebruikerservaring t.o.v. een conventioneel contract?

Deel 4 – Afsluiting

- Op welke manier kijkt u tot dusver terug op dit PPS-project?
 - Waar ligt volgens u ruimte voor verbetering?
 - Wat zou u in een nieuw PPS-project anders aanpakken?
 - Wat zijn volgens u de sterke punten van dit project?

Appendix 3 – Consent form

Overeenstemmingsverklaring

Afstudeeropdracht:

Bachelor Project Spatial Planning and Design Frenk van Stipriaan – Rijksuniversiteit Groningen

Titel:

Public-private partnerships in real estate: The relationship between contractual conditions and end-user experience – A mixed-method case study of Rijkskantoor de Knoop

Het doel van dit onderzoek is het vinden en beschrijven van een relatie tussen de contractuele condities en eindgebruikerservaring van publiek-private samenwerkingen in vastgoed van het Rijksvastgoedbedrijf.

Met het ondertekenen van deze overeenstemmingsverklaring verklaar ik dat:

- Het doel van dit onderzoek is duidelijk voor mij.
- Ik heb de mogelijkheid gehad om vragen stellen over het onderzoek. Ik ben tevreden met de antwoorden die ik heb ontvangen.
- Ik begrijp dat deelname aan dit onderzoek geheel vrijwillig is, dat ik het recht heb om me terug te trekken uit het onderzoek tot het moment van publicatie en dat ik het recht heb individuele vragen kan weigeren te beantwoorden.
- Ik begrijp dat mijn deelname aan dit onderzoek vertrouwelijk is. Zonder mijn vooraf aangegeven instemming kan geen enkel materiaal met mij worden verbonden in de resultaten van dit onderzoek.
- Ik begrijp dat de data ook zou kunnen worden gebruikt in artikelen, hoofdstukken van boeken, zowel gepubliceerd als niet-gepubliceerd werk en presentaties.
- Ik begrijp dat alle informatie die ik deel vertrouwelijk wordt bewaard op een vergrendelde locatie of in met wachtwoord vergrendelde computerbestanden.

Indien u akkoord gaat met bovenstaande, graag onderstaande invullen:

Ik geef toestemming tot het opnemen van dit interview JA / NEE

Ik blijf graag anoniem in dit onderzoek JA / NEE

Indien

JA

Mijn eerste naam kan worden gebruikt in dit onderzoek JA / NEE

OF

Een pseudonym ('respondent' + nummer) kan worden gebruikt in dit onderzoek JA / NEE

“Ik ga akkoord met deelname aan dit interview en aanvaard een kopie van deze overeenstemmingsverklaring en een informatiedocument van dit onderzoek.”

Handtekening van deelnemer: _____ Datum: _____

“Ik ga akkoord met de verklaringen die uiteengezet zijn in deze overeenstemmingsverklaring en verzeker dat dit onderzoek op een ethisch verantwoorde manier wordt uitgevoerd.”

Handtekening van onderzoeker: _____ Datum: _____

Vult u alstublieft onderstaande informatie in indien u graag een kopie van het interviewtranscript wenst te ontvangen voor het geval u correcties wilt maken.

Naam:

Adres:

Email:

Voor vragen kunt u contact opnemen met de onderzoeker:

Frenk van Stipriaan

f.j.van.stipriaan@student.rug.nl

Appendix 4 – Coding tree

