



Public Project Management in Western Europe: perspectives on project success

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TU Delft - CME

Infrastructure
design &
management

Witteveen + Bos

12-09-2014



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Vejdirektoratet

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Network Rail

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Acknowledgements

With this thesis I am concluding my two-year voyage into the world of management – as a master student in Construction Management & Engineering, at the Delft University of Technology.

As an international student with diverse international study experiences and people-oriented, I believe I could not have made a better subject choice than this research into the public client realm at a European level. It was a challenge I was glad to pursue, and it brought me great insights in best practices in the construction management field I would surely have not achieved otherwise. It was indeed a great learning process – from beginning, through the vast data collection phase, all the way to analysis and the final report – and I am grateful to have learned so much on the way.

I know I would not have achieved all this without the support and guidance of my graduation committee. Firstly, I would like to thank Marcel, for trusting me with this wonderful yet challenging assignment, and for allowing me to benefit from his expansive NETLIPSE network of relations, in order to reach out to managers all over Europe. Marian, thank you so much for always being ready to give consistent, positive and constructive feedback, and for your guidance in scientific research. Martijn, thank you for your sharp remarks and all the insights into management you provided throughout these study years. And last – and most importantly, a big thank you to Leonie, thank you for the all the time and attention, for the insights that enhanced the continuity of this research, and for all the critical and constructive feedback that you provided from the very first days till the tough last hundred meters of this “race”. Also, thank you for providing the possibility of publishing our findings in an international context - it made the effort even more worthwhile.

Of course, there are many other people I am greatly indebted: for taking their time to provide me with contacts and guidance, a big thank you goes to my main contacts - Etienne, Erik, Pekka, Riggert and Stuart. Jantien and all the other international-oriented managers at Witteveen+Bos, for helping me with the interview tests and giving me insights on public managers from the client’s perspective. And, of course, each and every single one of the 50 extraordinary people I had the chance to meet in my journeys, who agreed to take time off their busy schedules to participate in my research – I cannot mention you here, but your input and involvement kept me motivated all the way. I enjoyed every interview I made, and learned a lot from all of you.

A thank you goes to other people involved more (Sandra, Prap & Afshin) or less directly in my master thesis process. Also, a warm-hearted thanks to my friends here at the TU, and my family, near and far – you have really been my support network in these harsh times! Roel, Guido, Reno, Martin and all the others in my Aikido and DISS bands, thank you, I hope I was/ will be able to return the favour!

A very exciting journey has come to an end, but with every end there is a new beginning, and my last thank you goes to the ones who will be there by my side – thank you, Jose and Rashmi, for always believing in me and putting up with me through all of this!

Laura Coman

Delft, 12th September 2014

Summary

Scope of the research

Within the European Union, the national governments are the largest initiators and clients of large infrastructure projects. In such an international context it is thus essential for the private companies, be it consultancies or contractors, to understand their public client better, in order to come up with internationally competitive bids, successfully collaborate and deliver complex projects. However, there is limited literature available on what makes a project successful in the eye of the public manager, leading to mismatch of expectations and all the issues that derive thereof. This is particularly true in a European context, where large projects are put up for tender on international market. Differences in business culture among countries may amplify these knowledge gaps. Understanding better these possible foreign clients will increase the chances of private companies to come up with competitive bids and increase their portfolio of international assignments.

Previous research on a Dutch level (Van Loenhout, 2013) showed that management success criteria are dependent on the perspective taken by the respective manager and his/her role within the project. The goal of this research is to expand this research by finding public project management perspectives on a European level. Managers from 5 North – Western European countries were interviewed to better understand the mind-set of public partners in the increasingly international construction industry. In brief, the objectives of this research are:

- To expose managerial point of views on project success in different European countries
- To indicate if cultural differences affect manager's perspective on project success
- To propose learning opportunities in an European context

Methodology of the research

As the current research is an expansion of a theme developed initially on a national level, in the Netherlands, consistency in the research strategy is needed. To make the results comparable, the same method (Q-methodology) and success criteria are used for data gathering. Q is a method for impression, where a set of respondents (P-set) is ranking (Q-sort) according to a self-determined scale, given criteria (Q-samples), based on their subjective viewpoint. Several factors, (called perspectives) were extracted from the Q-sorts performed. After listing the quantitative results, a qualitative interpretation of the factor scores/ arrays, supported by interview quotes, is expected to describe several perspectives on project success. These perspectives will be analysed and compared.

Given the international aspect of the research, supplementary information will be provided by addressing cultural specificities of the countries envisaged. Based on a review of theories on cultural differences, new questions (related to criteria on project success), were formulated and addressed during interviews. Hofstede's theory on cultural dimensions was selected as basis. The answers were used in order to gain insight on cultural bias embedded in the manager's perception. It was discussed if there are national culture aspects that influences preference for certain success criteria, or positioning on certain perspectives. To conclude, a parallel was made between the previous perspectives derived by van Loenhout in the Netherlands, and the results derived from the new set of countries. This brought to light interesting differences between these viewpoints.

Results: three (North-Western) European perspectives on success

The analysis phase of the Q-methodology resulted in the extraction of three collective perspectives on project success, from 42 out of the 50 conducted Q-sorts/ interviews. The managers loading on one of these have views that are highly correlated with other in-group colleagues, and less so with respondents loading on other perspectives. These three perspectives are described hereafter:

Perspective 1 – Product – oriented management

Managers loading on P1 are bound by their attitude oriented towards the outcomes of the project. They are technical professionals operating in defined environments, with clear goals. The focus is on quality end results. These men on a mission have clear priorities: as long as there are no casualties (safety first), the iron triangle indicators are respected and the product is of substantial quality and fit for the user's needs, there is no reason not to consider the project a success. The planning and decision making moment has passed, and actor-related issues go in the background. P1 managers tend to downplay the influence of politics on their assignment, and seem to operate the project in an isolated environment. Only marginal interference is allowed from stakeholders and shareholders, as late scope changes are undesirable. They exhibit a low priority towards their client organization's interests and processes, performance ensuring a good client image. The contractor's interests are on a par with those of the own organization, geared to the same scope. Growth in experience is implicit, not sought after. They are highly independent and flexible, and refrain from following the "right" process blindly. They consciously seek alternatives and innovation, to achieve a high quality product.

Perspective 2 – Management in politicized/ decision making context

Managers loading on P2 are people able to deal with complex external project environments that are common during the FED phases of the projects. They have high social awareness, manifested by care for external actors, and a focus on right processes. The political pressure relates to well defined criteria: the timely and in budget elaboration of all phases is essential for their projects to proceed. Their priorities are clear, and geared by external influences: the iron triangle is split up; time and budget are essential as explainable indicators and project goals, whilst quality and safety receive lower emphasis. The quality and fitness for purpose of the final option is still subject to external influences, given the phase, and are not seen as key criteria for success. The client's image needs to be maintained. In this political arena, interests of the project team and of contractors are deemphasized by the project leaders, for the sake of reaching (intermediate) goals.

Perspective 3 – Process – oriented management

Managers loading on P3 are socially involved and try to manage the expectations of external parties in order to achieve project goals. They consider collaboration and communication as the basis towards a successful project. Special efforts are done to achieve efficiency within the delivery team – unlike P1 managers; they see collaboration as conditioned by attention to work processes, people and earning and development chances. Technically, they follow the traditional indicators of time, cost and quality, and are not willing to compromise on safety. Criteria related to the resultant product are a bit ambiguous within the ranking, there is no clear focus on product itself. Managers see things in their external context, and the undertaking is a social service towards their users, not a political mission or an isolated, yet ideal, product. The client image gets top ranks among criteria related to the internal organization – but it still ranks after other actor's interests. Politics and shareholders' influences are kept aside the project by keeping to indicators and keeping stakeholders at peace.

Lessons learned

Given the international span and detail depth during interviews, they brought insights that are more relevant than a general population view. Consultants and contractors interested in getting involved in projects in North-Western Europe can expect to come across managers on the client's side, whose approach to success is similar to the views presented in this chapter: managers focusing on product, on process or on pursuing decision maker's support. Project phase is supposed to have effect on the approach taken, but between P1 and P3, the inner nature of the manager itself will play a bigger role.

Perspectives 1 and 3 (product – and process – oriented management) are highly correlated, and appear often in the execution phase. The differences seem to stem from the manager's personal framework. Valuable lessons can be learned by loaders of these two perspectives: P1 managers could take a more people-oriented approach to balance an eventual unstable situation, and strengthen their bonds with the contracting partners, whilst P3 managers could learn from P1 to keep the focus on the final goal, in spite of being dragged along a cumbersome process. Perspective 2 is common among managers involved in projects pending decision, or with higher political influences. Interviewees mentioned that priorities change after the go-decision is taken, thus it is expected that their perspective would shift, according to personal inclination, towards P1 or P3.

When all 68 available Q-sorts are input for the analysis, four “new” mixed overall perspectives arise. These overall perspectives confirm the similarities and differences identified in the previous paralleling process. The orientations presented in the mix perspectives show that there are European perspectives valid overall (P1 Mix and P4 Mix), as well as peculiar approaches to success, typical for the Netherlands (P2 Mix and P3 Mix). These may be due to the organizational level of the manager, or to particular situations in the Dutch construction industry (lack of trust in contractors due to Bouwfraude) or to cultural aspects (Polder model, stronger influence of stakeholders and users in infrastructure projects). Therefore, Dutch consultants and contractors interested in undertaking projects abroad should expect (but for highly politicized projects) analytical approaches on success of their public partners, than in their home country.

Cultural aspects

Our research showed that indeed there are differences between target countries, but not as large as those expected, based on Hofstede's predictions from the 1980's. Not all managers confirmed their countries' inclination – especially on masculinity and uncertainty avoidance dimensions. In brief, the interviewed infrastructure managers do tend to think among the same lines in North-Western Europe. Managers from all countries showed low (to medium) Power Distance, medium Uncertainty avoidance, low to medium Masculinity and medium (to high) Long Term Orientation. Country wise, Belgium and UK yielded the largest differences with respect to expectations, whilst Finland and Sweden's results were more conform: there is evidence of a tendency in North- Western Europe towards a more feminine, people-oriented, uncertainty avoidant approach. The analysis confirmed that there are cases in which special preferences on certain cultural aspects coincided with particular rankings on some of these success criteria. However, this did not apply to all cases, thus links initially proposed between cultural positioning and success assessment cannot always be enforced.

Towards international collaboration

It is encouraging for the construction industry, to know that the efforts towards competitive tenders are paying up and public clients appeared more and more interested in working with international contractors and consultants. The three perspectives derived in this exploratory research were not country-specific – it can be said that public managers take similar approaches to achieve project success, irrespective of location. People in the business environment are moving in the same direction, and this eases understanding and collaboration between countries. Private parties should bank on their expert knowledge and capabilities, and enhance communication and goal-sharing with their clients, in order to establish themselves on the European market. The results and implications yielded by this research are a theoretical basis, and the methodology used – a useful communication tool for understanding European public partners and for enhancing working relationships. Furthermore, for learning purposes, it would be a good idea to develop a project database with the initial approaches towards success - and the follow up on if and how did they materialize in successful projects.

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1

Introduction

1.1 Introduction to the subject

1.1.1 Dutch viewpoints on public project management perspectives

In the Netherlands, as well as in other European countries, the government initiates large infrastructure projects. Public project managers are employed on the contracting authority's side, to manage these projects successfully. But what is success in their opinion? Are the well-known criteria 'in time', 'within budget' and 'according to quality measurements' sufficient and appropriate to measure the success of public projects?

A recently conducted research, among Dutch project managers, indicates several other success criteria of importance to the public project manager. With these criteria as start point, three different viewpoints were marked, indicating that there are three management perspective clusters among the Dutch public managers interviewed (TU Delft Master thesis - Van Loenhout, 2013). These three collective perspectives of Dutch public project managers, as concluded in this paper, are:

Holistic and cooperative leadership – this analytical approach derives from the manager's technical background, rather than his environment. Cooperation and stakeholder satisfaction are stressed out as part of this approach. Managers keep a holistic view, focus on urgent issues and end results, and are able to prioritise in a consistent manner.

Socially engaged, ambiguous management – this is an approach shared by managers at local and regional level, affected by environmental factors in the project. They show a socially engaged attitude, and stress the importance of the right process and of reaching the end result within budget. Because of this, their approach is ambiguous, thus prioritising lacks focus and consistency, and success often hangs upon external factors.

Execution of a top-down assignment – by this approach, a political promise is translated into a quantifiable goal, and timely delivery is quintessential. Stakeholder management is not important, and the right process means just preventing legal procedures that would result in delay. In such a well-defined environment, priorities are easy to keep track of and focus on the end-result.

In van Loenhout's paper, it was concluded that Perspective 1 stems from the public project manager himself: it is intrinsic to the person, based on his education and characteristics. Perspective 3 stems from the environment in which the manager is employed. Perspective 2 is both intrinsic to the manager and partly caused by this environment. Due to this it is possible for managers now loaded on perspective 1 or 2 to adopt perspective 3, if placed in similar conditions; but not the perspective of the other one, since they do not possess these necessary qualities. Whereas a public project manager taken from the environment of perspective 3 will adopt either perspective 1 or 2 depending on his own characteristics.

1.1.2 Expanding the research at European level via NETLIPSE

The Network for the dissemination of knowledge on the management and organisation (NETLIPSE), represented by TU Delft Professor Marcel Hertogh, is interested in the further exploration of the research topic stated at the previous point, this time in European context, and The Dutch consultancy company Witteveen+Bos is supporting the follow up. During a NETLIPSE meeting held in Bratislava, in November 2013, the governmental organisations of several North-Western European countries agreed on participating in this research, by providing respondents. Therefore, throughout this project, public project managers from Belgium, Denmark, Finland, Norway, Sweden and the UK will be interviewed, and based on their answers, different perspectives on project management success will be derived. Conclusions will be drawn based on comparisons among different countries and/or different perspective groups.

1.1.3 Witteveen+Bos

Witteveen+Bos is a Dutch engineering consultancy company that offers global solutions to complex technical issues in the construction industry both in the Netherlands and abroad, by employing multidisciplinary, empowered project teams. Being one of the leading companies in their segment in the Netherlands, they focus on best practices in project management and are keen on expanding their business in the EU. Therefore, they are interested in understanding their future clients better and gathering knowledge on how to have a successful approach in their international bids and projects.

1.2 Problem analysis - research objective

Within the European Union, the national governments are the largest initiators and clients of large infrastructure projects. In this international context it is thus essential for the private companies, be it consultancies or contractors, to understand their (public) client better, in order to come up with internationally competitive bids, successfully collaborate and complete such complex projects. Building trust between parties will pave the way for future contracts, expanding the business and innovation – that lags behind in construction industry. Both public and private parties should engage into an active knowledge sharing process at a European level, to strengthen mutual confidence, provide more robust processes and make the infrastructure market truly competitive.

However, there is limited literature available on what are the success criteria considered essential by the public client/manager, leading to mismatch of expectations and all the issues that derive thereof. This is particularly true in a European context, where large projects are put up for tender on international market. Differences in business culture among countries amplify these knowledge gaps. Understanding better possible foreign clients will increase the chances of private companies to come up with competitive bids and increase their portfolio of international assignments.

Previous research on a Dutch level (Van Loenhout, 2013) showed that management success criteria are dependent on the perspective taken by the respective manager and his/her role within the project. The goal of this research is to find public project management perspectives on a European level, in order to contribute to better understanding of the public side of public private collaboration in the increasingly international construction industry. In brief, the objectives of this research are:

- To expose managerial point of views on project success in different European countries
- To indicate if cultural differences affect manager's perspective on project success
- To propose learning opportunities in an European context

The research is built upon the foundation of the previous findings on project management perspectives in the Netherlands. It adds value by significantly increasing the scope from a geographical point of view. The research will focus on countries from the North –Western Europe, neighbouring the Netherlands, as we expect them to have more similarities in (the business) culture. Contacts acquired during the above mentioned NETLIPSE meeting, allow expanding the research to six countries: Belgium, Denmark, Finland, Norway, Sweden and the UK.

A small number of public project managers in charge of large infrastructure projects, from each country, was interviewed. The data gathered was used in a quantitative and qualitative analysis based on Q-methodology. The details regarding the characteristics of the sample of persons and the criteria used are further detailed in chapters 2 to 4.

1.3 Research questions

To reach the research objectives stated in the previous sections, a main research question is enounced. This is thereafter segmented in seven sub-questions formulated below, that will help structure the research, based on Q-methodology, which has as starting point the paper of Van Loenhout (2013).

1.3.1 Main Research question:

How do perspectives on project management success, of public project managers of infrastructure projects, from North-West European countries, parallel each other?

The approach to this question is to deliver answers to the following set of sub-questions, throughout the research performed during the present master thesis.

1.3.2 Sub- questions:

1. How do public managers in Belgium, UK, Sweden, Finland and Denmark assess success criteria in their current projects?

The answer to this question is constituted by the data gathered by performing Q-sorts during the interviews. The Q-sorts are based on the success criteria described by Van Loenhout in her paper. Statistical data obtained will be the basis of the future analysis.

2. What managerial perspectives can be formulated based on the rankings of these success criteria?

This question will be answered by taking the quantitative, empirical findings, and giving them a qualitative interpretation with the help of insights obtained during the interviews. Via centroid analysis, several factors will be extracted from the Q-sorts performed. These factors can be then interpreted as perspectives on success, of the respondents who scored significantly on them.

3. What culture particularities can be expected in the target countries - Belgium, Denmark, Finland, Norway, Sweden and the UK?

This question will give an overview of cultural dimensions, relevant for the target countries. Questions by which one can assess country-specific cultural differences will be added to the initial set of questions addressed together with the Q-sort, and will be also used as input for the fourth sub-question.

4. What is the cultural positioning of managers, and can it be linked with the dis/similarities between perspectives and preference for criteria?

This question leads to a discussion based on the quantitative and qualitative results of the Q-sort, enhanced by insight on cultural differences on job-related aspects. As a result, connections can be pointed out between positioning on cultural aspects, and (lack of) preference for certain success criteria, or for loading on a certain perspective.

5. How do these perspectives compare to the Dutch public managers' perspectives on project success?

Finally, the results of the research - the international perspectives on project success - are paralleled to Van Loenhout's findings at a national level, in the Netherlands.

1.4 Research strategy

As the current research is an expansion of a theme developed initially on a national level, in the Netherlands, consistency in the research strategy is needed. The results should be comparable with the prior findings on the Dutch batch of managers. Therefore, method (Q-methodology) and criteria (Q-sample) used by Van Loenhout are used as starting point for data gathering.

Q-methodology is a method for impression, where a set of respondents (P-set) is modelling and ranking (Q-sort) according to a self-determined scale, given criteria (Q-samples), based on their subjective viewpoint. Via centroid analysis, several factors will be extracted from the Q-sorts performed. Each individual Q-sort has a loading on these determined factors. This constitutes the quantitative part of the data analysis. In addition to applying the selected research method; the interviews will provide statements of personal views of the managers, to be further used in qualitative data interpretation.

After listing the quantitative results, a qualitative interpretation of the factor scores and arrays, supported by the statements made by the interviewees, is expected to describe several perspectives on project success. These perspectives will be analysed and compared during a discussion chapter, to formulate answers for the main research question – *How do perspectives on project management success, of public project managers of infrastructure projects, from North-West European countries, parallel each other?*

Given the international aspect of the research, supplementary information will be provided by adding to the interview questions that address cultural specificities of the countries envisaged. Based on a review of theories on cultural differences, new questions (related to criteria on project success), are added to the interview protocol. The answers will be used in order to gain insight on cultural bias embedded in the manager's perception. It will be discussed if there are national culture aspects that influences preference for certain success criteria, or positioning on certain perspectives.

To conclude, a parallel will be made between the previous results obtained by van Loenhout on the Dutch batch, and the results derived from the new set of countries, to bring to light differences and similarities between viewpoints.

1.5 Report overview

The first four chapters of the report contain research question and strategy, the theoretical background on the subject, and the framework for interviews. Chapter 0 deals with Q-methodology and criteria behind project success. Chapter 3 gives an overview of the theories on cultural differences, with the aim of selecting a theory upon which relevant questions can be build. Chapter 4 presents the methodological framework to be used during the interviews: the protocol behind Q-methodology, the characteristics of the respondents set and the derivation of questions on cultural-related aspects.

The following four chapters present the results and discussion on them. Chapter 0 presents the quantitative results of the research. Chapter 6 discusses the qualitative implications of these results, the perspectives on success and their implications. Chapter 0 integrates the cultural aspects with the ranking of criteria and perspective interpretation. Chapter 8 realises a comparison between the perspectives identified at European level, and the results obtained earlier in the Netherlands.

The last two chapters give the overview the findings of the research. Chapter 0 contains the final conclusions and answers to the research questions, and finally Chapter 0 contains the discussion on challenges encountered and the recommendations for further research.

2

Theoretical background on project success and Q-methodology

2.1 Theoretical background on project success

2.1.1 Project success

Projects are unique, temporary undertakings, objective-oriented, to be achieved under certain constraints of time, money, materials and labour. Project management is a discipline that provides techniques and tools to control the project in order to achieve its objectives.

Completing successfully - a construction project on time, within budget and at requested quality standards, without having to face opposition from local stakeholder groups, is the dream of every project manager – however it seldom comes true. Public project managers should decide upon the trade-off and prioritization of success criteria, to achieve project objectives while maintaining the stakeholders' support. The three measures of success (time, budget, quality), are still valid today, although more than 20 years ago, it was shown that these measures alone are not sufficient to determine the project's success (De Wit, 1988). An often mentioned determinant for project success is the stakeholder satisfaction.

The success criteria need to be told apart from success factors, as both appear mentioned often in the literature. Criteria are the measures by which projects can be judged in terms of failure or success (Cooke-Davies, 2002). Factors are circumstances who can influence the success (in)directly (Lim & Mohamed, 1999). Goals communication is a factor that can affect project success, whilst the iron triangle's measurable components are success criteria. The increase in complexity of contracts and projects lead to an increase in criteria number – including maintenance/ life cycle performance for example (Bryde & Robinson, 2005). Shenhar devised other success dimensions that depend on a larger time scope than execution: project efficiency for users, the impact on client's network of infrastructure, the business success and preparing for future, or the learning possibilities (Shenhar & et al, 2002). The criteria set are bound to change with time.

2.1.2 Client's perspective on project success

Success assessment is dependent on the perspective taken (client or private party), and actors should reunite at the start of the project to discuss their different perspectives (Wateridge, 1995). The project success is a highly discussed item in the management literature, but most focus on the success criteria relevant for the executing party, represented by the commercial manager (Cooke-Davies, 2002; De Wit, 1988; Munns & Bjeirmi, 1996; Pinto, Slevin, & English, 2009). If encountered, the client organization means usually a private sector client (Shenhar et al, 2002; Thompson, 1991), not of the public party that is commissioning the infrastructure works. The client is often seen from an external perspective, and its main task seems to be involvement and provision of management support. Literature can be found on relationship, cooperation and information exchange between

private managers and clients (Chan et. al., 2006; Pinto et al., 2009; Thompson, 1991; Turner, 2004; Webber & Klimoski, 2004), but with little emphasis on their view on success criteria.

Even if some public success criteria are mentioned, supposedly important aspects for the public side like political influence or sustainability, are left unmentioned (Bryde & Robinson, 2005; Toor & Ogunlana, 2010). Recently, public actors tend to copy the well-developed private success indicators, with the risk of inadequacy. Public goals should include, besides efficiency, also fairness, equity, accountability and concern for stakeholders and for the environment. Although there are governmental programs who aim to professionalize the public project managers (the Dutch Rijksprojectacademie), there is an acute lack of literature with relation to the goals and success criteria, as perceived by the public project manager. This knowledge gap adds to the incomprehension and lack of communication between public and private parties. The public manager is in between the influencers situated at the political level, and the contractors on the market who focus on the iron triangle. Therefore he needs to steer a constant trade-off between the criteria determining the project's performance. Real insight on how public managers would best accomplish their roles is missing, and bridging this knowledge gap would improve the collaboration process.

2.1.3 Success criteria revisited – basis for concourse

To cover up the lack of literature on success views of the public project manager, a first step was taken by Van Loenhout (2013) - who conducted a research on a national level, in the Netherlands. She performed an extensive literature study and based on it enlisted 25 success criteria. Based on these, a final concourse of 19 criteria was defined (Van Loenhout, 2013). This set of criteria was used to assess the views on project success of 22 Dutch public project managers. As the current research means to scale up to a European level the knowledge on success criteria gathered in the Netherlands, it is necessary to have a similar framework to ensure comparable results. During our literature study, no new relevant literature was found so as to change the enlisted success criteria, therefore, the concourse of success criteria defined was maintained (see Table 1 and appendix A for details). Managers from the participating countries were asked to make additions to the criteria list, if they saw it fit.

Table 1 - Success criteria for public project managers, as defined by Van Loenhout (2013)

No.	Criteria	No	Criteria
1	<i>Continuation of client organisation</i>	11	<i>Project specific political or social factors</i>
2	<i>Delivered on time</i>	12	<i>Quality</i>
3	<i>Effect on the professional image of client organisation</i>	13	<i>Right process is followed</i>
4	<i>Efficient use of the available resources</i>	14	<i>Safety</i>
5	<i>Fit for purpose</i>	15	<i>Satisfies needs of project team</i>
6	<i>Good working relationship with contracting partners</i>	16	<i>Satisfies needs of shareholders</i>
7	<i>Impact on the environment, sustainability</i>	17	<i>Satisfies needs of stakeholders</i>
8	<i>Learning opportunities for client organisation</i>	18	<i>Satisfies needs of users</i>
9	<i>Personal growth and development</i>	19	<i>Within budget</i>
10	<i>Profitability for contractor</i>		

2.2 Q-methodology – a method to study subjectivity

Q is a method of impression often employed in the study of subjectivity. It was developed by Oxford professor Stephenson (1902 – 1989). Q allows a systematic study of attitudes, opinions and beliefs, of both quantitative and qualitative nature. Q-methodology reduces several well-selected individual viewpoints to factors that express different typologies on the study subject. It does not need a large number of respondents, as the goal is not to identify how often a typology occurs, but what are these possible different typologies. Q factorial analysis gives insights on what are the differences and similarities between different views on the key topic. It assumes that subjectivity can be communicated and analysed systematically.

To model the subjective viewpoints, respondents forming a P-set sample, are asked to join in a so-called Q-sort. They are asked to systematically rank a number of statements on the study subject, according to instructions: from the most to the least important in their opinion on the given subject/characteristic to their approach. The statements collection on the investigation subject is named the Q-sample, or concourse – and it is the personal operant structure which will be investigated. The ranking is done on a ranking sheet. In the method of impression, a scale is defined – the most and least important criteria are the outmost points of the scale, and the rest of the criteria are arranged on a generally symmetrical Q-sort layout. The subsequent factor analysis is based on the Q-sort's correlations. According to the Q developer, if there is similarity in viewpoints between P-set respondents, "significant clusters of correlations", named factors, emerge. These factors are nothing but common viewpoints, or perspectives, on the subject.

Description of the Q-sort

The Q-sort consists basically of three parts. First, the respondent is introduced to the research scope, and given sorting instructions. He receives the statement list, which he should study thoroughly. During the next step, he has to perform the Q-sort or ranking of statements, printed on cards, on the ranking sheet, according to instructions. The distribution of the ranking sheet is usually symmetrical, and the interviewee is usually encouraged to keep to it. Once the sorting is completed in a satisfying way for the respondent comes the third step: an interview on the choices made. Highest, lowest and neutral statement's positioning are explained by the respondents, revealing their prioritisation on trade-offs, based on their internal framework and experience. This last step is crucial for results interpretation.

Description of the data analysis process

The Q-sorts are the raw data for the subsequent analysis. The PQMethod software (v2.35 with PQROT 2.0, May 2014) is used to perform it. The Q-sorts data will be input in the software, and this will provide a correlation matrix. If there is a group of people with similar views on important and unimportant criteria, the software will identify them as having a high correlation. Using centroid analysis or principal components analysis, the software extracts 7 factors from the correlation matrix.

Factors, rotation and significance of loading

These factors are averages of a group of highly correlated q-sorts – a mathematical representation of shared perspectives. Each respondent will have a different degree correlation to that factor, called loadings. The factors are defined just by respondents who load significantly on them.

Significant loading is calculated by using the standard error: loadings that exceed v-scores of $\pm 2.58 \times \text{Standard Error}$ are statistically significant at 0.01 level; loadings that exceed v-scores of $\pm 1.96 \times \text{Standard Error}$ are statistically significant at 0.05 level (Watts & Stenner, 2012)

The next step in the analysis is to rotate the factors in order to clarify and represent better the different clusters of views, accentuating existing relationships. This can be done either manually or the Varimax rotation, and leads to the final factors. In the end, just a limited number of factors (2-4) will have significant meaning. The researcher stops the rotation process, and proceeds to the analysis of the final resulting factors. Criteria like simplicity, clarity, distinctiveness and stability, are used in order to determine which will be the final factors. It is advisable to limit the number of non-loaders (who do not load significantly on any factor) and confounders (loading on multiple factors). Before final factors are accepted, two criteria had to be met: the factor itself, and the loadings of the q-sort on the factor, should be significant. The factor is significant if the cross-product of the two highest loadings of that factor exceed $2 \times \text{Standard error}$ (Humphrey's rule).

Interpretation of final factors

Once factors are accepted, their factor scores are ordered by the software from high to low, showing the agreement of the factor/perspective with each statement/criteria in question. After the scores are determined, the quantitative analysis is complete, and a qualitative interpretation of the final factors has to be formulated. In order to better interpret the factors, researchers have to look back at the various original Q-sort rankings and the background information gathered during the interviews. Also, the distinguishing and non-distinguishing statements between perspectives, provided by the software, provide crucial discussion point for interpreting the different perspectives.

2.3 Conclusion

Q methodology, used to study subjectivity, is a suitable method in our research, because the public managers will always use their internal frame of reference, formed via experience, to prioritize the criteria on project success. Impression methods provide much more information on the research subject than a yes/no expression method.

The P-set of managers will be asked to rank the criteria in a Q-sort, expressing thus their priorities during trade-offs. This will result in a series of Q-sorts which will be further factor-analysed. Personal reasons, as well as the expressed background context of the answers, play a large role in the subsequent analysis of the factors/ perspectives extracted from the Q-sort raw data. Chapter 6 will present the quantitative analysis realised using PQMethod, and chapter 7 will discuss the interpretation that was given to the final factors. In chapter 8, prior results from the Netherlands will be compared to those determined in our current research.

Q-methodology allows respondents to think deeper about the study subject, and it can lead to new practical insights. It is an interactive method and allows respondents to see the results in a relatively short amount of time. The perspectives derived might be challenging and/ or confronting for the participants.

3

Theoretical background on cross-cultural studies

Q methodology is, as previously mentioned, a method for studying subjectivity. Although the answers we will get can be quantified, they still have to be interpreted based on the respondent's internal framework. An argument for studying the culture's influence on the ranking made during the Q-sort is that when people's views on a subject are asked, their culture penetrates into the process (it shapes their internal frame of reference). In an international research, we need to look at cultural aspects to be able to interpret better the factors/ perspectives resulting from the Q-sorts.

The aim is to disclose cultural bias by adding questions on cultural aspects relevant for project success criteria. To account for cultural differences, we need measurable, comparable cultural indicators, and therefore a study of current cross-cultural theories was performed to see what aspects are fit to be addressed (paragraph 3.2. and 3.3.). These questions result in scores and/or statements that are expected to explain differences between national viewpoints or between perspectives, and can aid the qualitative interpretations of the sorts (paragraph 3.4.). The initial expectation was that, although the Saxon and Nordic cultures are similar, their approach to success might differ in particular aspects.

3.1 Definitions of Culture and Values

Throughout the literature reviewed, culture is generally seen as the representation of the shared values of a community. Cross-cultural studies seek to extract these shared values. The shared values reveal parts of the mental programming of a person, which defines attitude and behaviour. Values are seen as *"broad tendency to prefer certain states of affairs over others"* (Hofstede, Hofstede, & Minkov, 2005, p. 10). Kluckhohn (1951), cited by Hofstede, defined culture as "patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artefacts; the essential core of culture consist of traditional ideas and especially their attached values.". There are different approaches to study and classify cultural differences, questioning people what they think being the most frequently used by cross-cultural study practitioners. It might till yield circumstantial results, but, if performed skilfully and adjusted for bias, it leads to meaningful results (Minkov, 2007).

3.2 Literature overview

This chapter will give a brief overview of five representative cultural theories, looking into the way their initiators defined culture and comparing cultural aspects. National cultures were distinguished and described throughout the literature studied based on the measurement and classification of values. Cultural dimension (Hofstede, 2001) are clusters of interdependent values bound by some similarity, or aspects of culture that can be measured along different cultures, as ways to respond to universal problems of society. This paradigm was founded by Hofstede in the 1980s, when he derived four so-called cultural dimensions. Succeeding his work, other scientists either introduced

new dimensions based on his work (as in Minkov's theory or in the Globe project)), or described the same reality using different paradigms (Minkov, 2007). Many of these are however strongly correlated to Hofstede's dimensions. His theory is the most often cited, but since it cannot be proved that it is the best one to relate to choices made by multi-national managers on project success, four other distinguished theories will be reviewed: Minkov, Inglehart, Schwartz, and GLOBE project (Hofstede et al., 2005; Inglehart & Baker, 2000; Minkov, 2007; Schwartz, 1999a; Stumpf, 2011).

The following paragraphs (3.2.1 to 3.2.5) will overview their theories and the cultural differences encountered for our target country set. Dimensions/aspects where there are noticeable variations among country scores are selected for further analysis, and particular work-related aspects of the dimension will be discussed in relation with the project success criteria. Paragraph 3.3 will compile the results of these findings, presenting the cultural dimensions selected for further investigation, and substantiating how these dimensions are increasingly linked to various aspects of project success. Questions relative to these dimensions are derived from the existing literature and surveys in paragraph 3.4.

3.2.1 Hofstede's Cultural theory – cultural dimensions

The definition given by Hofstede to culture is “the collective programming of the mind that distinguishes members of one group or category of people from another” (Hofstede, 2001, p. 9), and values as states of affairs preferred by groups of people, invisible parts of culture that manifest into behaviour. He introduces the “onion diagram”, where the values are at the core of the nationality's functioning framework, determining culture and its manifestations in practices.

Hofstede founded in 1980's the cultural dimension paradigm, based on a large empirical study via a questionnaire, performed on IBM employees from 50 countries. He conceptualized the results of factor analysis by defining initially four cultural dimensions: Masculinity/ Femininity (emotional gender roles), Individualism/ Collectivism (linked to interpersonal relations), Power distance (linked to inequality in power distribution), Uncertainty avoidance (linked to dealing with uncertainty). In later versions, he added Long/short term orientation or Pragmatism (linked to postponing gratification and to orientation type – past, present or future). More recently, based on Minkov's studies, he integrated Indulgence/Restraint (linked to the satisfaction of human drives). The influence of national wealth on several dimensions is emphasized in his theory – especially for the Power Distance and Individualism dimensions.

The following paragraph will reproduce Hofstede's cultural dimensions. These bipolar dimensions are, within his books, supported “as much as possible by empirical data” (Hofstede, 2001, p.84). Their definitions are from existing literature; Appendix K contains more details on his theory and updated descriptions and country scores retrieved from his updated web page (<http://geert-hofstede.com/dimensions.html>).

Power Distance (PDI) expresses “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.” (Hofstede et al., 2005, p. 46). “Power distance between boss B and subordinate S in a hierarchy is the difference between the extent to which B can determine the behaviour of S and S the behaviour of B.” (Hofstede, 2001, p. 83)

Individualism (IDV) “is the opposite of Collectivism. Individualism pertains to a society in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people’s lifetime continue to protect them in exchange for unquestioning loyalty.”(Hofstede et al., 2005, p. 76)

Uncertainty Avoidance (UAI) “is defined as the extent to which the members of a culture feel threatened by ambiguous or unknown situations.”(Hofstede et al., 2005, p. 167) This is expressed through high stress levels and a need for (un)written rules leading to more predictability.

Masculinity (MAS) “is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. **Femininity** stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life.”(Hofstede et al., 2005, p. 120)

Long Term Orientation Index (LTO): In 1991, Hofstede added a fifth dimension based on research by Michael Harris Bond in China. This dimension, called Long-Term Orientation (LTO), based on Confucian thinking, was verified in 23 countries. “Long Term Orientation is the opposite of Short Term Orientation. Long Term Orientation stands for a society which fosters virtues oriented towards future rewards, in particular adaptation, perseverance and thrift. Short Term orientation stands for a society which fosters virtues related to the past and present, in particular respect for tradition, preservation of “face”, and fulfilling social obligations.”(Hofstede et al., 2005, p. 210).

LTO reformulated as Pragmatic vs Normative (PRA): In 2010, research by Michael Minkov generated other dimensions based on more recent World Values Survey data, and the second was strongly correlated, but not really identical to, Hofstede’s fifth dimension, LTO. He thus included this input, and reformulated LTO into Pragmatic versus Normative. The national scores for this last dimension were extended by Minkov’s research to 93, and it is based on these that appear on Hofstede’s updated web page, and in the scores overview in Appendix K.

Indulgence vs. Restraint (IVR): In autumn 2013, Hofstede’s web page was modified to include yet another dimension described by his pupil, Minkov – Indulgence vs Restraint. This sixth dimension will be described in more detail in the paragraph 4.5 on Minkov’s theory. “**Indulgence** (low index score) stands for a society which allows relatively free gratification of some desires and feelings, especially those that have to do with leisure, merrymaking with friends, spending, consumption and sex. Its opposite pole, **Restraint**, stands for a society which controls such gratification, and where people feel less able to enjoy their lives.” (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Discussion - Theory assessment

An overview on the national scores of the target countries on Hofstede’s 6 dimensions is reproduced in appendix K. Note that this study’s target countries tend to score similar on dimensions like Individualism(high) and Restraint(medium), but there are large variances for Power distance, Masculinity (mostly feminine, but with exceptions), Uncertainty avoidance and Long term orientation/ Pragmatism. Paragraph 3.4.2 will give deeper insight into these four dimensions, in order to put national differences up for assessment during the interviews.

Although Hofstede's data can be criticized on its age and lack of national representativeness (only IBM employees), we have to admit his pioneering job in cross-cultural studies. He acknowledged that World Value Survey data, if existent at the time he stated his theory, would have been ideal for the scope of his research. However, his theory is widely spread and acknowledged, there are rich literature sources and, over time, the validity of these dimensions has been confirmed by many studies (Søndergaard, 1994; Van der Zee & Van Oudenhoven, 2001). We can conclude that we can use within our research Hofstede's theory and his dimensions that show large variations among target countries. The dimensions were basis to formulate questions that can give more insights into cultural practices and differences, and possibly explain certain specific rankings of success criteria.

3.2.2 Minkov's cultural theory – building upon Hofstede

Minkov's cross cultural research adds to the basic 4 cultural dimensions of Hofstede, another 3 extracted from the latest wave of the World Values Survey, validated by comparing to other cultural data (Minkov, 2007). His theory departed from the close correlation between Hofstede's collectivism vs. Individualism, Inglehart's "self-expression versus survival values" and Project GLOBE project's societal in-group collectivism (Minkov, 2007, p. 54). Nevertheless, Minkov considered these dimension's correlation misleading, as they saw only one factor behind both happiness, and wealth and westernization. This aspect was not confirmed by the happy yet poor West-African and northern Latino American countries. Therefore, based on World Value Survey items, he defined two sets of bipolar dimensions, describing differences between the West and the Rest (Universalism versus Exclusionism) and about happiness and subjective well-being (Indulgence versus restraint). The last dimension (Monumentalism versus Flexumility), deals with aspects like pride, self-enhancement and self-consistency, as opposed to a tendency to humility and self-flexibility. Besides beliefs and values, these dimensions relate to differences in real-life occurrences like corruption, product quality, income inequality, performance on IQ tests and GD-per-person growth. The following paragraphs contain short introductions to Minkov's dimensions and salient features that could be related with our previously enounced success criteria.

Exclusionism versus Universalism: "**Exclusionism** is the cultural tendency to treat people on the basis of their group affiliation and reserve favours, services, privileges and sacrifices for relatives, friends, or other groups that one identifies with, while excluding outsiders from the circle of those who deserve such privileged treatment. **Universalism** is the opposite cultural tendency: treating people primarily on the basis of who they are as individuals, and disregarding their group affiliation." (Minkov, 2007, p. viii)

This cultural dimension contrasts the practices of the West with those of the rest of the world – with many societies in-between. The extremes are the Universal Scandinavian states, and at the opposite pole, the exclusionist African, and many Asian, states (Minkov, 2007). Exclusionism is intended as the non-western tendency to strong in-group cohesion and exclusion of out-group member from preferential treatment. Minkov considered that Hofstede's individualism–collectivism does not properly explain the West-and-rest differences and do not address in-group-out-group questions.

Indulgence versus Restraint Index (IVR): "**Indulgence** is a tendency to allow relatively free gratification of some desires and feelings, especially those that have to do with leisure, merrymaking with friends, spending, consumption, and sex. Indulgence boosts happiness and creates a perception of freedom, health, and life control. **Cultural restraint** (high index score) stands for the opposite. It

depresses happiness and the perceptions that life events can be controlled, and makes people feel relatively unhealthy.” (Minkov, 2007, p. ix)

Monumentalism vs Flexumility Index (MON): “**Monumentalism** stands for pride and high self-regard, demonstration of status and generosity, interpersonal competition, absolutist thinking, religiousness, and modest or poor educational performance. In monumentalist cultures, the human self is like a monument: proud and monolithic (consistent and inflexible). The Monumentalism Index will probably be negatively correlated with the Long Term Orientation Index, but it includes aspects not covered by the latter. Cultures at the opposite end – **Flexhumility** (Self-effacement) are characterized by the opposite characteristics. – stands for a society which rewards humility and flexibility are characterized by the opposite characteristics.”(Minkov, 2007, p. X)

Discussion - Theory assessment

Looking at the country scores devised by Minkov, the target countries tend have low indexes on exclusionism (thus highly universalistic, especially the Netherlands and Sweden), average on indulgence (with Belgium the most indulgent of the batch) and low on monumentalism (thus incline towards flexhumility). There are little differences among the target country indexes to be accounted for by further questioning during the interviews; furthermore, besides concern for the environment and for safety, these three dimensions do not yield aspects that relate easily to our concourse of success criteria. Therefore, these dimensions will not be operationalized into questionnaire items. The theory can however be used, if found conspicuous, at the time of the data analysis.

3.2.3 Inglehart theory – World value survey

Inglehart is the director of world value survey, a project undertaken by a global array of social scientists that do surveys in more than 90 societies, to assess values and cultural changes over the world, in several waves. WVS is the most extensive and updated data sets for cross-cultural studies, usable to extract national dimensions. Minkov, another scholar in cross cultural studies, extracted his own cultural dimensions based on WVS questionnaires items. Data is obtained via face-to-face interviews with 250-item questionnaires. Inglehart used factor scores based on 22 item variables, and identified two dimensions were found out, reflecting cross-national polarization between traditional versus secular-rational orientation in relation to authority, and survival versus self-expression values.

Traditional vs secular-rational values: In traditional societies, religion and authority are important and there is deference to God, Nation and Family. There is respect and acceptance for power holders, and rejection of divorce, abortion, euthanasia and suicide. Secular-rational values, thriving in advanced industrial societies, have the emphasis on opposite preferences (less religious or with less emphasis on authority and more on the individual).

Self-expression vs Survival values: Self-expression thrives in advanced industrial countries, with high levels of security and individual autonomy. Their values shift from security, taken for granted, towards quality of life. There is tolerance of diversity, trust, civic activism, emphasis on subjective well-being and environmental protection. At the opposite pole, where there is existential insecurity and constraints in autonomy, survival values - physical and economic security, are paramount. Distrust, intolerance and xenophobia are common, and politics are authoritarian. Ethnic diversity and cultural change are seen as threats. There is little emphasis on environmental protection.

National scores evolved during different WVS research waves during 1981-1998, as shown by a study realised by a former TU Delft master student (Maleki, 2010). According to Inglehart and Baker, this is true in particular for the survival dimension, as changes in socioeconomic development led to more security and autonomy. In the traditional dimension, however, changes were not significant. But socioeconomic factors are shorter term, situational factors, and cultural aspects refer to a longer time scope and, possibly, to longer-term situations that shape values and practice.

Discussion - Theory assessment

Among the countries included in this study, variations on both of Inglehart's dimensions were the smallest small scale – all the target countries are developed, democratic, Western-European countries. Besides Belgium and UK/Britain, most of them are included in the same cultural zone, based on Huntington's guide (1993, 1996). Although there are some numeric differences, as seen in the diagram below, the countries envisaged incline to self-expression values, and to a secular-rational orientation to authority, thus there is little scope for questioning cultural differences based on these two dimensions. However, the extensive questionnaire of WVS can prove useful insights for survey questions formulation, as it taps issues related to other values relevant for our criteria, like trust or environmental protection.

3.2.4 Schwartz theory – Cultural value types

A cross-cultural researcher and social psychologist, Shalom Schwartz, sees values as “guiding principles in life, self-ordered by importance, used by actors to select and explain actions and evaluate people” (Schwartz, 1999b). He acknowledges the possibility that values change within history, due to exogenous factors. His method is based on priorities of values, where values are seen as beliefs and/or reference to desirable goals, transcending actions and situations. Values serve as standards, are ordered by importance and their relative importance for each individual guides action (Schwartz, 1999b).

The theoretical framework used by Schwartz was built upon results from his own survey – SVS, containing 45 basic values to be prioritized as guiding principles in the personal life of respondents. These values appear as abstract items, their further meaning being briefly explained. Schwartz produced bi-dimensional maps, where he considered values not independent, like Hofstede, but interrelated based on compatibility, in a circular structure (Figure 1 - Overview scores for target countries over 5 of the cultural theories studied). This circular display allows to see how adjacent/compatible, or distant/incompatible, two cultural orientations are. Cultural value orientations were reached, like in the previous theories, by making an average of priorities in values, of matching samples of respondents. Schwartz extracted results from similar target groups (school teachers) – 122 samples from 49 nations, and tested results for robustness on college students.

Focusing on three structural issues that all societies confront, Schwartz pointed to seven bi-dimensional dimension poles and associated values, described briefly below, and more extensively in Appendix K (definitions from Schwartz, 1999a).

1. The relationship group-individual discussed two themes: whose interests prevail (the group's or the individual's), and if people are autonomous or embedded in their group. This resulted in the polar dimensions of *conservatism versus autonomy (divided in intellectual or affective)*.

II. To guarantee responsible behaviour that will preserve the social structure, people must manage social interdependencies, by either a *hierarchical or an equalitarian* system.

III. The relation of humankind to the natural and social world can be dealt by control, exploitation and *mastery*, or by accepting it as it is and fitting *harmoniously* in.

Although no individual country scores were encountered during the literature survey, the orientation of the target countries on Schwartz's value map was found. Schwartz compared in terms of importance ascribed to each value type across national cultures. He represented graphically (dis)similarities among different country samples simultaneously, in a 2D space. The value type names on the figure indicate the increased importance of that particular value (Schwartz, 1999b). It shows that the target Western European countries are grouped towards the egalitarianism, intellectual dimensions, and low on hierarchy and embeddedness. The value ascription Schwartz gives to the West Europe country group fits their character of democratic, welfare states with real concern for the environment. UK, as other English-speaking countries, is found to be scoring higher in affective autonomy and mastery, and less in egalitarianism. Its cultural orientation is more assertive, pragmatic and entrepreneurial. Because of these differences, Schwartz considers thus 'individualism' an improper term to describe both North-European and English speaking cultures (Schwartz, 2009). Based on this dimension mapping of the countries, work-related values that may influence the success criteria, by the author's judgement, were underlined in appendix K.

Discussion - Theory assessment

The description of basic values given by Schwartz is too general, making them difficult to properly interpret and assess in relation to the concourse. Scores of some particular countries do not match some recognized stereotypes on the countries. For example, US are found to be more conservative than Japan (politeness, honouring elders), while Germany and Italy score at the top, respective bottom, of the scale for Affective Autonomy (Enjoying life, varied life, and exciting life). These rankings were found insensible and puzzled scientists (Heine, Steven J.; Lehman, Darrin R.; Peng, Kaiping; Greenholtz, 2002). More detailed background data, like the questionnaire used by Schwartz in his survey, SVS, as well as the country scores per each dimension, could not be retrieved. Because of this aspect, and since there are no major differences on their plotting on dimensions (but for UK), as mentioned, it was decided not to include in the interview questions based on these dimensions.

3.2.5 The Globe project

Via the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) research program, a network of researchers located worldwide examined links - between cultural values, societal / organizational practices, and leadership (House, Javidan, Hanges, & Dorfman, 2002). From 1993 on, more than 150 scientists conducted a long-term series of cross-cultural studies, by delivering surveys among 62 societies (on an average of 251 respondents per country, from the middle management sector). In the Globe project, culture is seen as "shared motives, values, beliefs, identities and interpretations or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations" (House et al., 2002, p. 5). "The GLOBE research program is directed toward filling a substantial knowledge gap concerning the cross-cultural forces relevant to effective leadership and organizational practices." (House et al., 2002)

An important characteristic of this theory is the distinction it makes between cultural practices and cultural values. Practices are associated with societal phenomena (human development index, health, national competitiveness), whilst values, with attributes of leadership. To make this distinction, respondents had to fill in two sets of rankings, showing not their personal view, but their perceptions of society - “as it is” (practices) and “as it should be” (values). Statistical data showed negative correlation of cultural practices and values. This was explained by the fact that societies deprived of a certain value are pursuing it more vigorously (House et al., 2002). The values to be employed in further studies should be those closer related to the issue at hand – practices for societal aspects, and values for effective leadership.

Globe project labels and describes nine dimensions of culture, based on previous literature study (mainly Hofstede’s theory), as follows:

- “1. **Uncertainty Avoidance** is defined as the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events.
2. **Power Distance** is defined as the degree to which members of an organization or society expect and agree that power should be unequally shared.
3. Societal Collectivism reflects the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.
4. **In-Group Collectivism** reflects the degree to which individuals express pride, loyalty and cohesiveness in their organizations or families.
5. **Gender Egalitarianism** is the extent to which an organization or a society minimizes gender role differences and gender discrimination.
6. **Assertiveness** is the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships.
7. **Future Orientation** is the degree to which individuals in organizations or societies engage in future-oriented behaviours such as planning, investing in the future, and delaying gratification.
8. **Performance Orientation** refers to the extent to which an organization or society encourages and rewards group members for performance improvement and excellence.
9. **Humane Orientation** is the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others” (House et al., 2002, p. 25)

These cultural dimensions were measured separately for values and practices and their scores for each country has been calculated and tabulated in the GLOBE book. Six of these cultural dimensions have their origin in Hofstede’s work, whilst the remaining Gender Egalitarianism and Assertiveness substituted Masculinity dimension. Collectivism was measured with two, rather than one, scale. Values, attitudes and behaviours are associated with the GLOBE dimensions, just as in the previous theory. As expected, there are strong correlations found (Javidan et. al., 2006) between most of Hofstede’s dimensions and the GLOBE cultural practices (not values). Uncertainty avoidance is an exception, as they measure different aspects: tendency to avoid uncertainty by making rules (Hofstede) versus how many rules, norms and order are there in society (GLOBE). The last three additional dimensions that were derived from Kluckhohn and Strodbeck’s work (Future orientation); Kluckhohn and Strodbeck’s, Putnam and and McClelland’s ideas (Humane orientation) and from McClelland’s work on need for achievement (Performance orientation).

Discussion - Theory assessment

The weak points of the GLOBE study are the limited number of samples (250 per nation) compared to those employed in other theories. Also, they are criticized for their interrelations: they are mostly derived from Hofstede's dimensions, some of which are divided in different aspects - "similar facets of one dimension" (Minkov, 2007), as for example Uncertainty Avoidance vs. Future Orientation. Hofstede saw these exogenous definition of culture (preference on behaviour of others) as illogical for value comprehension: if one takes risk, or likes to act forceful, it does not mean that he prefers others to do the same (Hofstede, 2006). This would imply that GLOBE values are not comparable with those determined via other theories, whilst GLOBE practices could be.

Besides these aspects, one major impediment in interpreting the results is the fact that the extensive questionnaire developed in the first stage of the (on-going) study was not yet published. Country scores on various research items are also unpublished. Furthermore, one of the countries targeted in this paper – Belgium – was not included in the study. These shortages in literature and the dimension similarities to a more extensive, documented and referenced study such as Hofstede's are aspects in favour on focusing the survey questions on the latter's original cultural dimension descriptions.

3.3 Conclusions of literature study – insight into selected dimensions

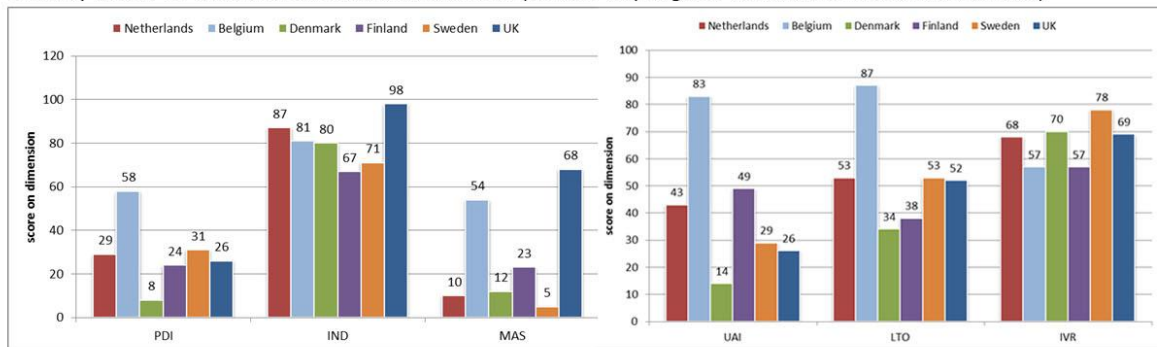
Thanks to the literature study, vast overview of the current cross-cultural theories was possible. As it was shown, theories do not yield substantial data on how were the conclusions reached (Schwartz), and/ or the scores of the target countries present low variations on most of the dimensions proposed (Minkov, Inglehart, Schwartz - see Figure 1 - Overview scores for target countries over 5 of the cultural theories studied for an overview of existent scores). Furthermore, there are correlations between many of the dimensions depicted by the above mentioned theories, as a previous TU Delft master student showed within a table of his master thesis (Maleki, 2010, p. 54). We need not use dimensions that are similar (Globe or Minkov AND Hofstede's), but focus instead on one theory that provides more insight and records more variations among the country scores. Therefore, we will make use of the theory of Hofstede, as his dimensions yielded the largest variances among target nations, and his theory is broadly recognized among scientists and scholars. In the following paragraphs, insight will be given into specific aspects of the above-mentioned dimensions and their connection with our success criteria.

The research will try to establish if there is cultural influence on the respondent's rating of the success criteria. For this, a framework encompassing the project success criteria and elements of the selected theory's cultural dimensions was conceived. Table 2 - Links between Hofstede's dimensions and success criteriashows Hofstede's cultural dimensions, and their link with the criteria discussed previously (for details see 3.4.2).

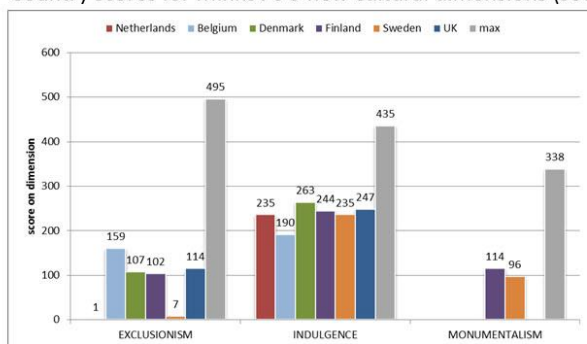
Thanks to this overview, we can see that our questioning efforts should focus on specific dimensions where selected countries showed large variation and increased number of links to our success criteria: power distance/PDI, uncertainty avoidance/ UAI, Masculinity vs Feminity/ MAS, Long term orientation/ LTO (or Pragmatism). Concepts that could explain the ranking of the success criteria will be operationalized in advance, and coded into a set of questions, to be addressed during the interviews, after the q-sorts. By these questions, we will check/ confirm that certain cultural aspects are confirmed/considered important by the respondents. Based on the respondent's answers, it can

be reasoned if and how the ranking of the criteria can be influenced by the socio-cultural environment of the respondent.

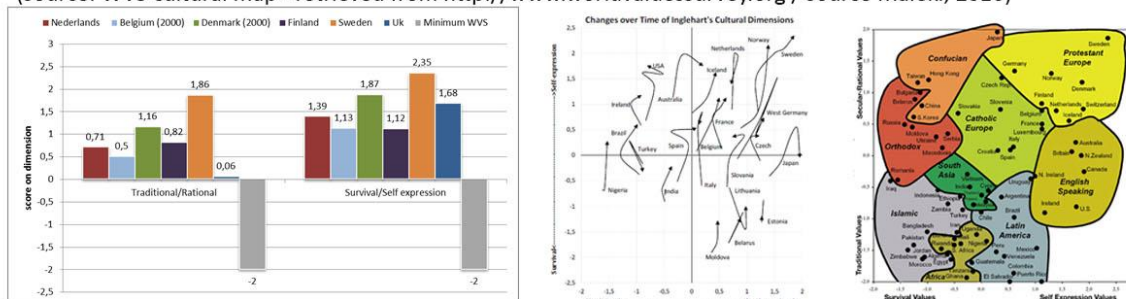
Country scores for Hofstede's 6 cultural dimensions (source: <http://geert-hofstede.com/dimensions.html>)



Country scores for Minkov's 3 new cultural dimensions (source: Minkov, 2007)



Country scores for Inglehart's two dimensions / Changes over time in Inglehart's cultural dimensions (source: WVS cultural map - retrieved from <http://www.worldvaluessurvey.org> / source Maleki, 2010)



Country positions on Schwartz's value maps (source: Schwartz, 2006)

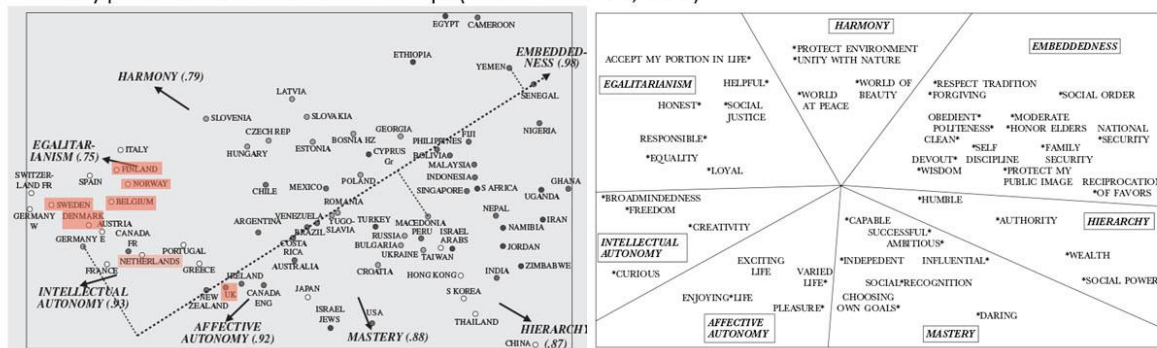


Figure 1 - Overview scores for target countries over 5 of the cultural theories studied

		Success criteria considered to be influenced by particular takes on cultural dimensions																		
Hofstede's cultural dimensions	Cultural dimension	1.Continuation client	2.Delivered on time	3.Effect on image of client	4.Effect on use of available	5.Fit for purpose	6.Good rel with contractors	7.Impact on environment,	8.Learning opportunities for	9.Personal growth and	10.Profitability for contractor	11.Political/social factors	12.Quality	13.Right process followed	14.Safety	15.Satisfies needs of project	16.needs of shareholders	17.needs of stakeholders	18.needs of users	19.Within Budget
	Individualism vs collectivism			X			X		X	X						X				
	Power distance				X		X					X		X		X		X		
	Uncertainty avoidance	X	X			X				X			X	X	X					X
	Masculinity vs femininity						X	X		X		X				X	X	X	X	
	Pragmatic vs normative (LTO)	X		X	X		X		X	X						X		X		X
	Indulgence vs restraint				X								X							

Table 2 - Links between Hofstede's dimensions and success criteria

3.4 Questions on cultural dimensions affecting success criteria

During the framework development phase, it was decided to test the positioning of the respondents on cultural aspects via two different assessments/ questions sets. The question derivation process will be presented in the following paragraphs.

3.4.1 Questionnaire format

The first set of cultural questions will consist of a free-choice question, where respondents can chose endorsed items from a list of job aspects derived from the characteristics cultural dimensions documented by Hofstede, Set 1 will permit a quick overview of the position of the respondent on Hofstede's dimensions (see paragraph 3.4.3 and Appendix L for details).

The second set of questions will consist of a Likert scale-based questionnaire, a psychometric scale which has been commonly used in prior research on cross-cultural aspects, as presented in paragraph 3.4.2. Respondents will specify their level of agreement or disagreement on a 'balanced', symmetric scale for a series of statements. This range will capture their intensity of feelings for the statement. The questionnaire is targeted at respondents who are matched samples with a good level of education, which allows for a higher level of abstraction in the question's format. Set 2 will test the positioning of managers, with relation to statements on internal project issues, on a Likert scale. This investigation will help in the analysis stage, by providing insight on reasons behind particular rating configurations of the success criteria, which can be linked to these items.

The set 2 questionnaire is limited, condensing answers into fewer (5), more meaningful, categories, easy to interpret. Quite often (as in Hofstede's IBM questionnaire), odd response levels are chosen. Odd-number scales have a middle value which can induce bias. There might be response style bias issues with this type of scale. For example, respondents may avoid extreme response categories

(central tendency bias). When presented with a ‘safe’ choice at the center of the scale, respondents are likely to select that, rather than reveal their ‘true’ opinion. This often happens when the questionnaire is administrated in English, and not in the mother tongue of the respondents (Minkov, 2012), like in the present case. To avoid this, an even number of response levels (4) was chosen: forced-choice scales, ranging from 4-Strongly disagree; 3-Disagree; 2-Agree; 1-Strongly agree. These are flanked by an additional ‘no opinion’ option, for those respondents who truly cannot respond to the questions. Additional explanations to ease responses were provided during interviews.

3.4.2 Question formulation process

The following paragraph will review four of Hofstede’s cultural dimensions, selected as a result of the literature study. Their basis of difference in scores among the selected countries and conceptual clarity, and the relevance of their characteristics to attitudes towards success criteria will be given. Each dimension will be followed by its definition as they were expressed by Hofstede in his book (Hofstede et al., 2005) or on his webpage (Hofstede, 2014). A table containing each dimension’s work-related bipolar characteristics is included in Appendix K - the work aspects operationalized in questions can be found highlighted in these tables. Success criteria is logically linked to certain cultural aspects depicted, and aspects that ‘weight’ more in terms of associations with success criteria were further operationalized into questions (up to a maximum of 3 questions/criteria), or included in the initial open question list (3.4.3), according to the complexity of the concept.

Power distance Index (PDI)

Power distance expresses “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.” (Hofstede et al., 2005, p. 46)

Power distance can be perceived especially in the subordination relationships surrounding our respondents. The project manager is the intermediate between his superiors at an organization and political level, his subordinates - the project team, and the contractors (the hierarchy between public manager and the private contractors may vary among different countries). Therefore, some of the practices described in the table can be linked especially to the criteria related to these actors: Criteria 11-project specific political and social factors; Criteria 15 – satisfy needs of project team, and Criteria 6 – good working relationship with contracting partners. Furthermore, PD can affect the manner to relate to these parties, the right process (13). Practices like the influencing manner (if there is space for bargaining or authority is imposed in association with sanctions), and the information availability or constraints, can be seen in relation with project team, contractors and politics.

Questions - Power distance

Societies where power distance is smaller favour decentralization and less supervisory personnel and a delegation of responsibilities and decision making. In this context, the influence of external political factors (11) may be less than in a large power distance society. Centralization or decentralization, that is expected to manifest itself by stricter steering and more detail level in the delegated task, versus delegating responsibilities as a whole and giving more room to manoeuvre. We can test the power distance by asking questions on the level of decentralization in the organization, or the internal hierarchy/levels of supervision necessary within the organization:

“I am working in a centralized organization, with several supervision levels.”

Low power distance manifests also within the project organization, in the way supervisors relate to subordinates - the delegation of responsibilities along with decision making power, more autonomy for employees and less control over details on the side of supervisor (6, 15); overall more interdependency and less difference between hierarchical levels.

“When delegating a task to the project team, a good manager does not need to supervise all the details –he can rely on his subordinates.”

Large power distance presumes more restraint in dealing with superiors (11, 15), especially when it comes to disagreements. Low power distance ensures the opinions are voiced out, and the direct influence of the superior is less obvious.

“Last time I did not agree with the management level above me, within this project, I expressed my disagreement and presented them the issues.”

Uncertainty Avoidance Index (UAI)

“Uncertainty Avoidance is defined as the extent to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations.” (Hofstede et al., 2005, p. 167). “The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.” (Hofstede, 2014)

Uncertainty avoidance manifests itself by a predilection for work structure; rules and security are welcome and if lacking, it creates stress. The rules and procedures system in place can be linked with project success criteria on process (13), quality (12) and safety (14). The focus of decision making also varies – from a good decision process (High UAI) to a good decision content-wise (Low UAI). The location of above-mentioned criteria can be reasoned based on these aspects.

Questions - Uncertainty avoidance

The intent to stay within the company for a long time is a proven descriptor of uncertainty avoidance; from this perspective, there is expected to be an inclination to strain the importance of continuation of the client organization (1).

“After this project, I wish to continue my career within this organization.”

Uncertainty avoidance manifests through anxiety and low degree of tolerance to ambiguous situation. Uncertainty avoidant environments try to enforce limits by detailed specifications within the scope definition, and less flexibility towards possible changes in scope that would impact on project promises like time or budget. On the other hand, lack of scope flexibility may also impact the fitness for purpose (5) of the infrastructure.

“A great level of detail should be used in the project scope definition before tendering the contract.”

Counties that score low on UAI shun rules unless cases of absolute necessity, as they are viewed as restricting creativity and flexibility. Rules are less sacred, but better followed, and there are public habits reinforced by societal control – common sense (Hofstede et al., 2005, pp. 182–183). The number and level of enforcement of procedural rules that is operationalized within a company is a good descriptor of the uncertainty avoidance level of the organization. To explain the positioning of statement (13) – right process is followed, we can ask the position on the following statement:

“In the project’s context, NO rules are necessary for what can be dealt with by common sense.”

Masculinity Index (MAS)

“Masculinity is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life.” (Hofstede et al., 2005, p. 120)

It is expected that managers coming from societies that score low on masculinity will tend to cater to the needs of other parties and quickly reach consensus, whilst masculine societies will orient themselves towards achievement, and solving conflicts as they appear.

Questions on Masculinity/ Femininity

Masculine societies reinforce assertiveness in decisions and competition; feminine societies show more concern for the relationships, and for reaching consensus among parties. Decision making has a participative character, and it is more likely that other actor’s needs and opinions are considered more important as success criteria (15, 16, 17, and 18). Therefore, we can question the decision making style, to see the inclination of the respondents and thus the propensity to value more the above-mentioned criteria.

“Last time I was facing a decision for this project; I strived for consensus in the group, rather than make the decision only by myself.”

In masculine societies, conflicts can be solved by confrontation, whilst feminine societies thrive on consensus. In the context of a project, situations may arise when there are conflict of interest between the client organization and contracting partners. By testing the acceptance of open conflict in this setting, we can assess the position of criteria (6) - good relation with contracting partners

“I choose to be decisive in case of a conflict, rather than negotiate.”

A masculine society really appreciates public recognition and opportunities for higher-level jobs. This aspect can be analyzed in rapport to the chances given to the project team (15):

“In my project, the appreciation of excellence is on individual basis rather than team achievement.”

Long Term Orientation Index (LTO) – (Pragmatic vs Normative - PRA)

“In societies with a *Low LTO/ normative orientation*, most people have a strong desire to explain as much as possible. People in such societies have a strong concern with establishing the absolute Truth and a need for personal stability. They exhibit great respect for social conventions and traditions, a relatively small propensity to save for the future and a focus on achieving quick results.

In societies with a *High LTO/pragmatic orientation*, most people don’t have a need to explain everything, as they believe that it is impossible to understand fully the complexity of life. The challenge is not to know the truth but to live a virtuous life. In societies with a pragmatic orientation, people believe that truth depends very much on situation, context and time. They show an ability to accept contradictions, adapt according to the circumstances, a strong propensity to save and invest, thriftiness and perseverance in achieving results.” (Hofstede, 2014)

Pragmatic societies would put emphasis on perseverance and self-discipline (9), thrift (4, 19), preserving relations, cooperation and public accountability (6, 15-18), equality and a capacity to relativize and to adapt (8, 9), in order to achieve results in the highly changeable business environment. In comparison, normative societies would be more restrained by traditions and norms, less adaptive and focusing more on short-term decisions and bottom line results (2, 19) rather than on the long term quality, appropriateness and sustainability of the project (7, 12). Respect for tradition impedes innovation. The image is an important concept: for normative societies, it is humiliating for the ego to lose face in public, whilst in pragmatic societies; interrelatedness is supported by the personal shame of not having accomplished commitments.

Questions - Long term orientation

One of the aspects of low LTO, the fear/concern of losing face in front of the society, can be related to two of the success criteria we enlisted: the effect on the professional image of client organisation (3), and on the long run, on the continuation of client organisation itself(1). Therefore, to gain more insight on particular ratings on these criteria in the Q-sort, we can add inquiries on what is the gravity of losing face in public, in the respondent’s context.

“When I have difficulties in accomplishing project promises, I worry more about the effect on our image as professionals, than feeling ashamed of not performing”

The importance of steadiness and stability, attributes of low LTO, can be logically related to the continuation of the client organization, and was included in the preferred job aspects open question. “Adaptiveness and perseverance” (steady effort, withstanding discouragement), attributes of high LTO, can be linked to one’s desire for personal growth and development (9).

“To adapt to future needs and circumstances, we have embedded flexibility in scope.”

The network of relations is quintessential in long LTO/ pragmatic countries, whilst in normative countries; personal loyalties vary with business needs. This can be seen if success criteria as the iron triangle (2, 12, 19) are prioritized over good business relationships (6, 15) and interest for other actors involved (16, 17, 18). We can operationalize this into the following question:

“Considering a high pressure situation, in order to achieve the required project goals I am prepared to jeopardize my relationship with the contractor. ”

3.4.3 Open questions on job aspects influenced by cultural values

As mentioned, the first part of the cultural aspects questionnaire will include a list of 16 job aspects, among which the respondent would endorse a maximum of 6. The job aspects included are derived from Hofstede's and WVS's questionnaires, and are related to the cultural dimensions selected as relevant in the previous section. Four aspects for each of the four bipolar dimensions are enounced in the list below – two for each polar aspect (for example, two for masculinity: MAS+ and two for femininity: MAS-). The results are expected to give more insight on the overall cultural orientation of the respondent, and will support data obtained from the detailed questions in the second part.

	Job aspect	Imp	Cultural dimension related	Success criteria presumed to be influenced by a preference for this job aspect
1	Pleasant, cooperative atmosphere among co-workers		MAS -	15 Satisfies needs of project team
2	Job security; Steadiness and stability		UAI +	1 Continuation of client organization 3 Effect on professional image of client organization
3	Having a say in important decisions		PD -	11 Project specific political/social factors
4	A responsible job, where perseverance is valued		LTO +	4 Efficient use of available resources 19 Within Budget
5	Challenge and recognition		MAS +	9 Personal growth and development
6	Tolerance for ambiguity and chaos		UAI -	13 Right process is followed
7	Respect for status		PD +	9 Personal growth and development
8	Network that varies with business needs		LTO -	6 Good working relation with contracting partners 15 Satisfies needs of project team 16 Satisfies needs of shareholders 18 Satisfies needs of users
9	A useful job for society and environment		MAS -	5 Fit for purpose 7 Impact on the environment, sustainability 17 Satisfies needs of stakeholders 18 Satisfies needs of users
10	Clear procedures and rules		UAI +	13 Right process is followed 14 Safety
11	More supervisory personnel		PD +	4 Efficient use of available resources 6 Good work relations with contractors 15 Satisfies needs of project team
12	Reward by abilities		LTO -	9 Personal growth and development 15 Satisfies needs of project team
13	A job in which you can achieve something		MAS +	5 Fit for purpose 12 Quality
14	Appreciation for generalists and common sense in decision making		UAI -	7 Impact on the environment, sustainability
15	Opportunity to use initiative		PD -	11 Project specific political/social factors
16	Learning new skills, adaptive		LTO +	8 Learning opportunities for client org 9 Personal growth and development

Table 3 - First set cultural questions

The resulting cultural questionnaires were circulated among a few managers acquainted with international project settings, for testing and refinement, and later used during the interviews, after the respondents have performed the q-sorts. Results will be presented in chapter 0.

4

Framework for interviews – theory integration

The forth chapter will integrate and apply the theoretical background contained in chapter 2 and 3, into one complete framework to be utilized during the data gathering process. The framework will contain thus Q-methodology procedures aiming at project success, supplemented by questions aiming to define the positioning of respondents on various cultural aspects. The lines below give the framework overview, and the way is covered in the subsequent sections of the paper:

1. Definition of the concourse and Q-sample:

The concourse consisting of 19 success criteria used during this research was developed in 2012-13 by Van Loenhout, in a similar study aimed at public project managers from the Netherlands.

2. Selection of participants (P-set):

Section 4.2 describes the numerical and qualitative preconditions set for the final set of participants – called P-set

3. Q-sorting process:

Participants were asked to rank criteria related to project success, according to their internal frame of reference, from most to least important. The final set of 19 ranked criteria is called “Q-sort” of the participant. The Q-sorting process will be presented in section 4.3.

4. Questions on cultural aspects

Alongside the Q-sort process, the two questionnaires devised in section 3.4, on job-related cultural aspects will be administrated to the P-set.

5. Quantitative results:

The process of extracting the factors/ perspectives on success from the Q-sorts is presented in chapter 0.

6. Interpretation of results and derivation of perspectives:

The results of the interpretation of the Q-sort – the perspectives on project success, will be presented in chapter 6.

7. Interpretation of answers on cultural aspects

The interpretation of answers on cultural questions and the possible influence that culture exerts over the derived perspectives is discussed in chapter 0.

4.1 Concourse and Q-sample

Van Loenhout identified and assessed 19 such relevant criteria, as seen in paragraph 2.1.3. A literature research did no yield new findings on the subject, and to make the findings comparative; the same criteria will be the starting point of the concourse. The full list of success criteria with their associated definitions can be encountered in Appendix B.

4.2 The participant group – P-set

The P-set consists of the total number of participants in the research process. Unlike in survey methods, Q-Methodology allows for a small sample of respondents that hold a relevant view on the topic. The P-set does not represent subsets of the general population, as its goal is just to establish an array of common viewpoints within the P-set range. Nevertheless, a minimum significant number of respondents are necessary to validate the Q-methodology procedures. As rules of thumb, usually two to four perspectives are derived, and each perspective needs at least two significant loaders – thus an average of 9 respondents, including contingency. Given the fact that we are trying to study five different countries, it was considered ideal to have at the very least 3 respondents from each target country.

The respondents and the projects they lead had to comply with a set of preconditions, to limit noise or bias and make sure that the managers play similar roles in projects. To be considered suitable for inclusion in the P-set, managers had to abide to the preconditions listed below:

The preconditions of the respondent:

- He or she is employed by a public organisation at any level: central government/ministry, a province, or a municipality. The employment type can be permanent or freelance.
- He or she performs the role of public project manager: within the project he/she has contact with the contracting party and acts as representative of the client organisation.
- He or she has at least two years' experience in this role, so that the internal frame of reference associated with this role has been fully established.
- A good spread among public organization levels, and, if possible, proportional representatives of both genders, is desirable.

The preconditions of the project:

- Infrastructure or construction project (not buildings only).
- Contract without a financing component (DB / DBM - no DBFM/ DBFMO)
- Project that is either being tendered, being executed or which execution was recently finished – if finished, it should be no more than 2 years ago, to ensure that those involved are still aware of the choices and motivations relating to the project.

The initial NETLIPSE contact persons from each country were asked to provide a range of managers that allows for proportionality among countries. This should have been obtained in aspects like number of respondents, gender, spread of projects type and scale and organizational level at which the managers operate.

The final interview will begin with a series of questions on the manager's background and experience, as well as on the type, characteristics and level of complexity perceived within the project they decided to present. The full questionnaire is based on the one used by Van Loenhout in the 2013 Dutch study, and is reproduced entirely in Appendix C.

4.3 Q-sort execution – online and in person

The Q – methodology procedure has already been described in chapter 0. The paragraph below presents the way it was implemented during the data gathering phase.

Trade-off online versus offline

Q-sorting is usually processed during interviews – realised either in person or online. The major disadvantage of a live interview approach is that this process is very time-consuming. The advantage is that participants are likely to provide extra information to the researcher while sorting the cards. This information can be insightful and helpful for interpretation of the results. Part of this information can be provided by asking questions in the online Q-sort model. Literature shows that there was no noticeable difference in reliability and validity of using online vs. personal interview type of Q-sorts. Additionally, participants can perform the Q-sort in their own time planning and (private) location, which provides the participants more freedom and privacy.

Within the first committee meeting, it was decided to continue along the lines of the research performed by Van Loenhout, and try to perform as many interviews as possible in person – using traditional cards and board materials. Alternatively, for people working in locations out of easy reach, an online alternative and tool were developed, to be used during interviews via Skype or Lync. The 50 interviews performed, preceded by 4 test-interviews with Witteveen+Bos international managers were challenging to plan and arrange for, but they yielded a rich amount of data to be processed during the analysis.

Live q-sort

The first step in the live process was to make a rough pre-sort. The participants were asked to sort in total 19 success criteria, according to how important they considered each aspect. The participants were asked to divide the criteria, printed out on cards, into three groups, guided by the following question: “With the discussed project in mind, how important are the following criteria in determining this project’s success?”. The success criteria could be ranked either least important, neutral or most important. By performing this rough sorting process the participants had to get familiar with the criteria by reading all the definitions. The pre-sorted criteria facilitated the next steps which also made it easier to go through the next steps.

The second step was to divide the pre-sorted cards from the three piles on a ranking sheet. This grid has a bell shape. For this sorting process a seven point scale was used; corresponding with - 3 is least important, 0 neutral and + 3 most important. The easiest way for the participants was to start with dividing the cards that they find most and least important - extremes were the ones they have the strongest opinion about. Afterwards, they could start to sort the rest of the cards over the remaining middle categories. This is an essential step for the Q-sorting: this is when the participants make trade-offs between the different aspects. This process goes on until all aspects are sorted and the total grid has been filled.

Third step included a description of the reasons for selecting the three highest ranking, and the three lowest ranking, success criteria. In both live- and online- cases, the interview and Q-sort were followed by the questionnaire related to cultural aspects.

Online q-sort

Several online Q-sorting techniques have already been developed, but their usability was questionable – either they were expensive for the scope of a master thesis, or they required certain features installed on the computer. Since there was no certainty that the respondents had these features installed, an alternative tool was developed in Microsoft Excel, by which the Q-sort process was simulated. A user - guideline was written to accompany the online interview. Screenshots illustrating the main steps of the developed tool are presented in Appendix C’.

The model development has been an iterative process. The first step was to develop the model in such a way it seemed suitable through the eyes of the researcher itself. This means it was ensured that the layout and steps to be taken would be clear and logically follow after each other. Then it was ensured that all couplings between the different tabs in Excel functioned well. When it seemed suitable to carry out the Q - sort, the model was sent to a test person with no experience, to test the user-friendliness of the model. The feedback received was implemented. A second step was a test on a person of an age similar to that of the respondents – the revised version proved successful. Afterward, the model could be sent to the first online participant, the final test to see if everything was understood. The respondent completed the Q-sort within half an hour (which was the time aim). He appreciated the method as straightforward and working well. Finally the model was used with the other 8 online participants. They were asked to use it during the Skype/ Lync interviews, so as to clarify any misunderstandings. However this was generally not necessary. Nine Q - sorts were completed in the appropriate way and time scope, confirming the user - friendliness of the model.

4.4 Questions on cultural aspects

Alongside the Q-sort process, the two questionnaires on job-related cultural aspects were administrated. Appendix C contains an overview of these questions, as applied in interviews.

4.5 Discussion

Given the tight time frame, opportunity in selecting participants was always a factor, and due to it, there were less female managers than expected and less spread among the organizational levels, as shown in paragraph 5.1.1. However, sufficient and adequate participants were found. The live interviews lasted per average 1.30 hours, compared to the slightly longer, 2 hour interviews online. This was due to the request to perform the excel-based Q-sort on the spot, during the online meeting, and not prior to the interview. It was easier to earn the trust of the respondents, and to get access to more details, during the live interviews. However, both types resulted in rich raw data to be processed, analysed and interpreted in the ensuing chapters.

4.6 Conclusion

In Q-methodology, the context of the answers/project always plays a role in person’s internal frame of reference. Obtaining background information on respondents is crucial. Meeting the participants personally helped to gain trust and increase quality of the data gathered. Contacting managers on locations abroad, and scheduling and organizing the travel to meet as many managers as possible in person was a project in its own. The results of the interviews are presented in the next chapter. The excel Q-sort tool created was and can be used further, in both research and real-life workshops.

5

Quantitative results of Q-sorts

This chapter presents the results of the data analysis obtained during the interviews. The scope is to derive common perspectives on project success, among North- Western European project managers. In this second stage of the research (April – June 2014), 50 international project managers p-set candidates, expressed their ranking preference of 19 success criteria, resulting in 50 Q-sorts. Factorial analysis using the PQMethod software was performed on the Q-sorts. Based on this, common perspectives on project success were derived. These perspectives will be described in chapter 0, enhanced with cultural insights in chapter 8, and then can be compared with the Dutch perspectives determined by van Loenhout - the initial 26 Dutch Q-sorts (2013), in chapter 9.

For privacy reasons, the names of the interviewees or of their projects are not published, as it would make the respondent identifiable. Respondents received a code including the country abbreviation and a number reflecting the chronological order of taking the interviews, within each country. Within the data interpretation, the details given on characteristics are not sufficient for identification.

5.1 Characteristics of P-set

From the 50 interviews performed during the data collection process, 9 interviews were conducted online and 41 in person, with public project managers from the five target countries. Characteristics of the managers and their projects are further described in paragraphs 5.1.2 and 5.1.3. A summary of the manager's characteristics can be found in Appendix F.

In order to have an overview based upon which we will further explain the common viewpoints, the following aspects will be looked into: their educational background, the parent organization they belong to and their previous work experience. For their respective projects, relevant differences can be derived from insight into the type of project, realisation budget, type of contract, financing client and project phase.

5.1.1 Final P-set – discussion and exclusions from the set

During the data collection process, opportunity was a factor in selecting the participants. Respondents were usually acquired via one contact point within each of the 5 countries, courtesy of the NETLIPSE network. Initially, 12 public managers per country were contacted. In the end, the research yielded results from 9 respondents from Belgium, 10 from Denmark, Finland and the UK, and 11 from Sweden. Although individually, these numbers are less than the number of respondents from Netherlands, 26, Q-analysis could be performed on the whole set of 50 respondents, enough to give substantial insight on the array of viewpoints present.

Because of the opportunity factor, it was not always possible to have number of respondents, gender, spread of projects type and scale and organizational level at which the managers operate: for example, only 5 out of 50 managers were female. Also, especially in the case of UK and Belgium, the scale of the projects was larger, per average, than the cases encountered in the other countries. There was less spread among organization levels than in the Netherlands, managers working for the central government organization, not for regional or local branches. This was balanced by the variation in the projects, as many managers were assigned to regional projects.

Eight interviewees had to be excluded from the final analysis because they deviate from the P-set requirements, as explained in the following lines.

Three respondents (B01, B08 and B09) were excluded because they were working under a DBFM contract, as that the financing component would induce bias in their success assessment. In the 2013 Dutch P-set, DBFM respondents did not value the iron triangle criteria, as they saw it as the contractor's responsibility. This was not always the case with our three respondents, as they still perceived time, budget and quality important. Only one of the three gave a lower value to time and budget, due to his focus on the end product. In the preliminary analysis conducted on the whole set of 50, they scored each on different perspectives: B01 loaded on P2, B08 on P3 and B09 on P1. Due to these exclusions, the group of Belgian respondents was reduced from 9 to 5. It is interesting to note that Belgium was the only country using DBFM contracts.

Five respondents were left out of the final P-set because they hold a position different than that of an operational project manager/ director, which biased the preliminary results extracted. These are: one liaison manager – B03 (operating between the client organization and the political layer), one portfolio manager – D09; one head of planning department of street& park services – F09; one project sponsor – UK01 (in charge of assisting the client in defining the project/system specifications and following up on their delivery); and one route asset manager – UK09 (in charge of the product management and operation during all the post-delivery lifecycle). Besides this, one project director in the Department for Transportation/UK is not operational manager, but is the client itself, at a political level – but during the execution of the project he discussed, his function was suitable.

The viewpoint coming from a different function than that of an operational, execution manager was less focused on the daily operations and details, and more on the bigger picture and the whole lifecycle of the project delivered. These aspects are critical in attaching a higher value to the fitness for purpose of the product, and its ability to satisfy user needs on a long run. Therefore, in the preliminary analysis conducted on the whole set of 50, they scored significantly on a derivate of our final Perspective 1.

In conclusion, the final Q-sort analysis was conducted on a group of 42 managers with similar functions in the project's context, and that do not work under DBFM contracts. The following paragraph shows the characteristics of this final set of 42 managers.

5.1.2 Respondent characteristics

Unlike the previous Dutch respondents, the vast majority of the respondents set - 43 out of 50 - has as background Civil Engineering (37 out of 42 for the final P-set). One of them has a second degree in Law. The rest of the respondents hold degrees in MBA, Electrical engineering, Mining engineering,

Datomatics and Chemistry (1 of each.) Furthermore, 7 respondents mentioned they followed additional Project Management courses.

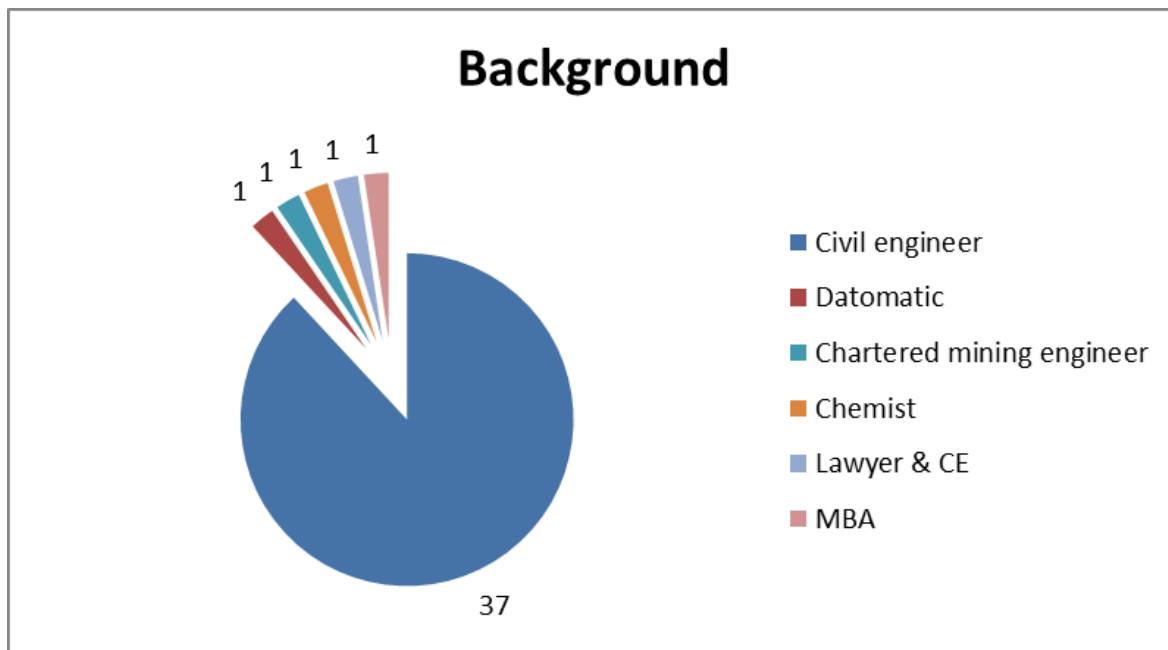


Figure 2 - Overall background of respondents

As in the Dutch case, the aim was to include similar ratios of male and female respondents. Since three of the target countries are seen by Hofstede as feminine cultures (thus it is normal for men and women to have same type of jobs, instead of gender-specific), It was expected to come across more female managers than in the Netherlands. However, be it to opportunity factor or to actual proportion of female managers in the construction industry, at the end just 5 of the initial set of 50 respondents were women. One was not included in the final P-set, due to her different function.

Figure 3 shows the spread among organizations of the participants. The color codes will be used as of now to differentiate among participant countries. The majority of the respondents in Finland, Denmark and Sweden work for the central government organization, similar to Rijkswaterstaat (Finnish Transport Authority/FTA, Vejdirektoratet, Trafikverket), although most of the managers (35 out of 50) were assigned projects of local interest. UK is a particular case, as Network Rail is a private agency handling government funds for rail projects, and acting as a client on behalf of the Departament for Transportation/DFT, in rapport with contractors. This was also the case in Belgium, for BAM, TUCRail and De Scheepvaart. Belgium and Finland have representants among several levels – almost half of the participants are representatives of the central government organizations (BAM and Finnish Transport Authority/FTA), while the others come from regional organizations (Technical center and Ely Keskus in Finland) or specialized semi-governmental bodies (De Scheepvaart, TUCRail in Belgium).

With regard to **sector experience**, 22 of the respondents reported working for both public and private organizations, 14 just in the public sector, 3 were previously army engineers and 3 have predominantly experience in the private sector and have recently switched sides, being asked to handle public projects. Belgium, Denmark and Finland yielded the highest numbers of managers employed only in the public sector.

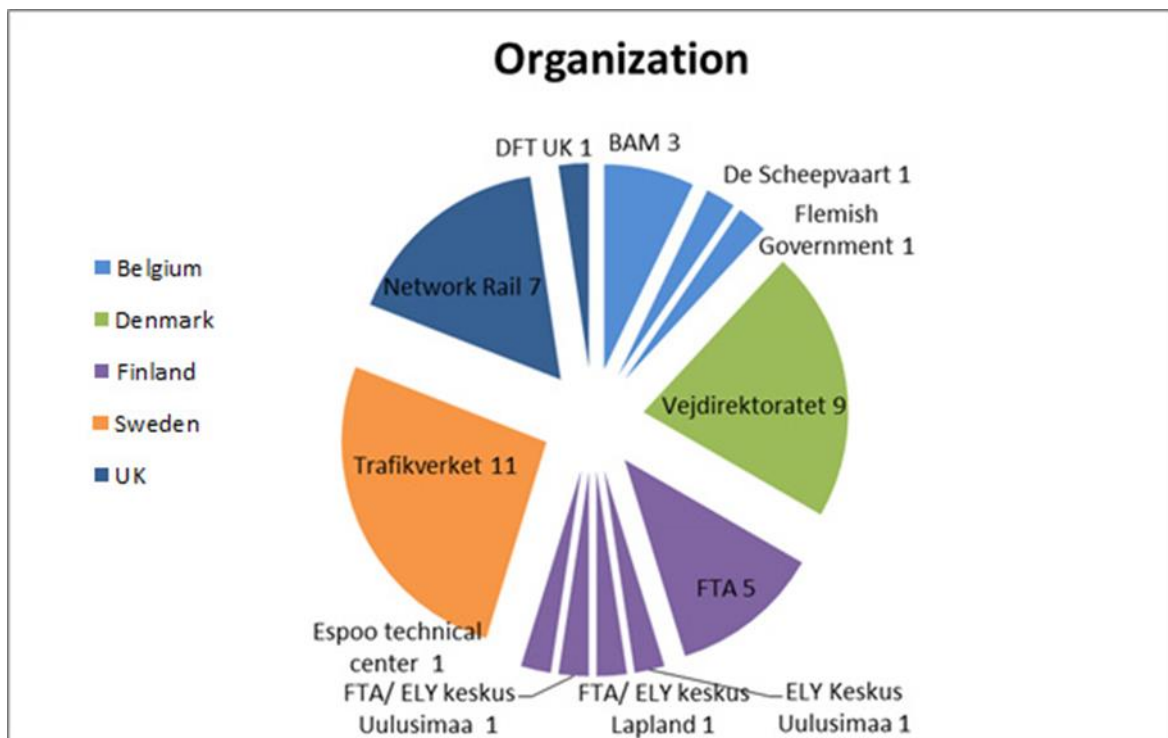


Figure 3 - Spread across organizations of respondents

5.1.3 Project characteristics

Alongside data on the managers, details on the projects were also discussed during the interviews, in order to provide basis for comparison and interpretation of the quantitative Q-sort results, a graphic overview of the situation is given in Figure 4 - Overall characteristics of the 42 final P-set respondents.

Regarding **project type**, 25 of the projects were road infrastructure; the rest was spread among rail-related projects – electrification, rail and road or rail station remodelling. Due to the opportunity factors, Rail projects were predominant in the UK, but just sporadic in the other countries.

Regarding the **project phase**, 16 projects were still in various initial phases ranging from pre-design to tender, 8 projects were in overlapping phases, 19 in execution and 9 already completed. The larger programmes incline towards the overlapping phases due to their large size. During the interviews, several respondents mentioned that there is a high probability that the way they sort success criteria might be biased by the phase they are in, and that if the process would be repeated in the future, their choices might differ due to a different construction phase. This is highly probable in the cases where the final political decision was not yet taken, or the permits were not yet obtained. It is plausible that priorities change when the project moves into execution phase.

Contract types vary, from traditional building contracts with design separate (14), to design and construct/ engineer and construct, sometimes including alliance or integrated project team (10 in total), to larger programmes that employ both types enounced before (14), and one DBM, with financing handled aside. In 2 cases, the political decision was not yet taken so no contract was in place yet.

Regarding the **internal client**, half of the projects are founded exclusively by budget allocated by the central government, 10 by government and the local authorities, 9 are co-founded also by other external parties, and 2 are founded just by the local authorities.

Realization budgets vary greatly, from €10 million up to more than €10 billion – for large rail modernization programmes. The projects are quite proportionally spread along this budget range, satisfying P-set requirements. The range is larger than the one encountered in the Netherlands, during van Loenhout’s research (her highest budget category was “larger than €100 million”). The most expensive exponents (In UK or Sweden) are actually development programmes rather than projects, and the managers in charge have the title of project directors, and operate at a strategic level rather than at an operational level.

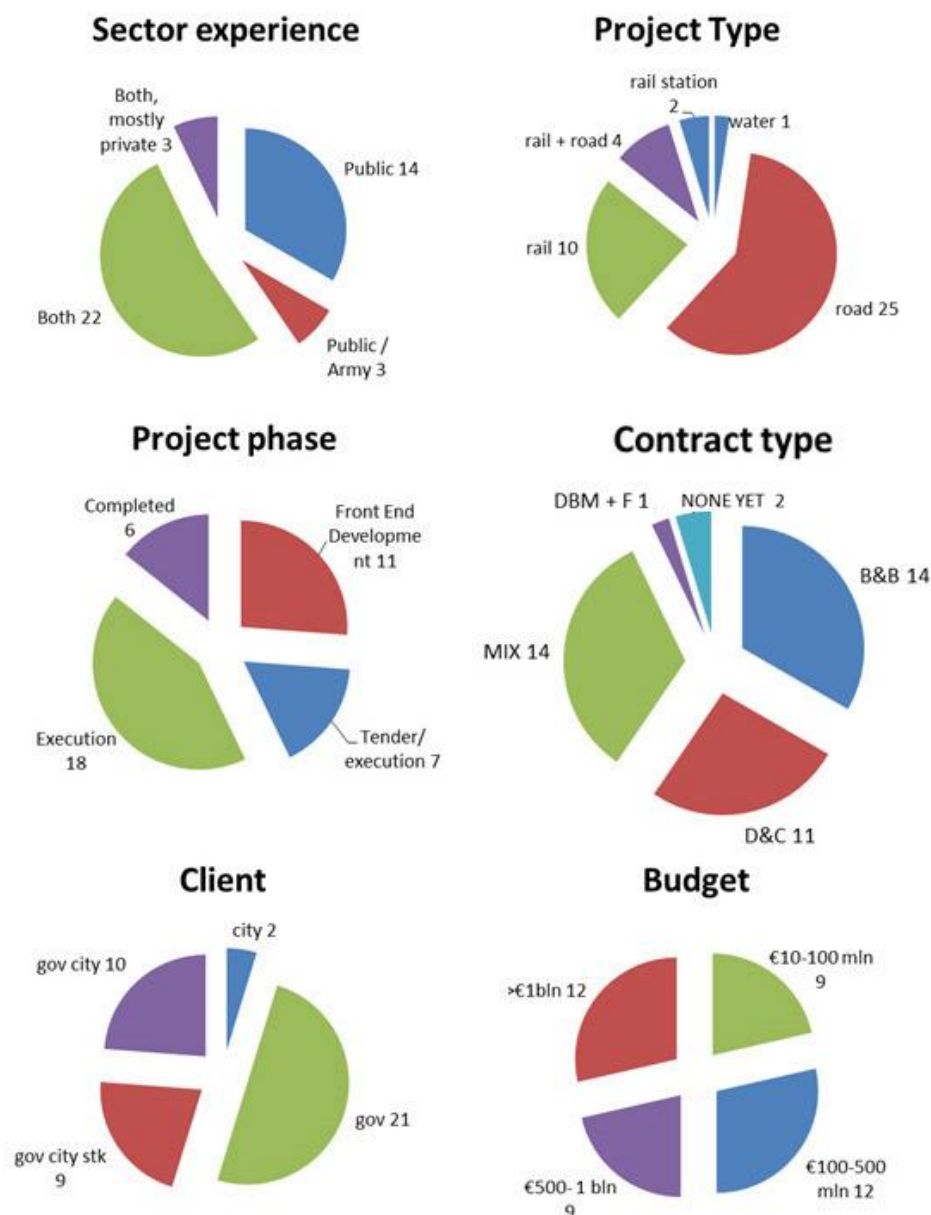


Figure 4 - Overall characteristics of the 42 final P-set respondents

5.2 Factorial analysis process

In order to realize the factorial analysis, all Q-sorts and statements data were input in PQMethod software. An initial correlation matrix of the Q-sorts was thus obtained. Using the same software we then generated the initial factors using centroid analysis and principal components method. Afterwards, final/rotated factors were obtained using the Varimax rotation.

Each individual Q-sort has a loading on each of the final factors. This loading expresses the correlation between the sort and the factor. Before factors are accepted, two criteria had to be met: the factor itself, and the loadings of the q-sort on the factor, should be significant. The conditions for factors and loadings significance are stated below. (Standard error = $1/\sqrt{19} = 0.23$)

- Significance of the factors themselves – factor is significant if the cross-product of the two highest loadings of that factor exceed 2*Standard error (Humphrey's rule)
- Testing for acceptance loadings: loadings that exceed v-scores of ± 0.59 ($= \pm 2.58 \times \text{Standard Error}$) are statistically significant at 0.01 level (they relate strongly to the perspective) ; loadings that exceed v-score ± 0.45 ($= \pm 1.96 \times \text{Standard Error}$) are statistically significant at 0.05 level (with a weaker relation to the perspective, and more chances of confounding with other perspectives) (Watts & Stenner, 2012)

The process was repeated, rotating 3, 4, 5 and 6 factors, as seen in Table 4. The 3 and 4 – factor solutions were further considered for final decision. The cumulative explained variances of the 3- and 4- factor solutions come very close, at 62% and 69%. The defining number of sorts for the 3- and 4- factor solutions is the same – 40, thus these solutions are indifferent. After interpreting the characteristics of the factors/ perspectives in the four- factor solutions, it was found that factors 1 and 4 are highly correlated (0.80), and almost overlapping. The number of distinguishing statements for factors 1 and 4 was very low due to their correlation, and there were 4 confounding sorts between factors 1 and 4. Therefore, the three-factor solution was chosen, and presented in Q-analysis - Cross-country factor computation.

	3- factor	4- factor	5- factor	6-factor
CEV	62%	69%	74%	78%
Acceptable factors	3	4	5	5
Defining sorts	40	40	37	35

Table 4 - Characteristics of consecutive factor solutions

5.2.1 Q-analysis - Cross-country factor computation

An overview of the Q-analysis results is given in Table 5, showing the loadings of each respondent per each perspective. The table also shows, in pale orange, non-loaders (loadings below significant level of 0.45) and in pale blue, confounders (respondents that load significantly on more than one perspective). From this point on, the 3 final factors will be called "Perspectives" – with codes P1, P2 and P3. The final results of the analysis are that there are 20 respondents that load significantly on Perspective 1, 11 on Perspective 2 and 9 on Perspective 3. Perspectives are all significant at 0.05 level, and, in 75% of the cases, they are significant at 0.01 level (scores over 0.59), meaning most respondents strongly identify themselves with them.

Code	Persp. 1	Persp. 2	Persp. 3	Extra information
B01				no DBFM contract
B02	0,2603	0,0456	0,7135	
B03				not Project Manager
B04	0,2979	0,495	0,3658	
B05	0,3454	0,7482	0,0581	
B06	0,3768	0,6593	0,4574	
B07	-0,01	0,7725	0,1728	
B08				no DBFM contract
B09				no DBFM contract
D01	0,6197	-0,088	0,2144	
D02	0,3184	0,6546	-0,121	
D03	0,2426	0,2807	0,5411	
D04	0,4909	0,6429	-0,251	
D05	-0,053	0,9014	0,1012	
D06	0,7042	0,0036	0,4981	
D07	0,2618	0,7741	0,0624	
D08	0,6707	0,2896	0,1351	
D09				Not Project Manager
D10	0,4558	0,2971	0,3222	
F01	0,3822	0,1007	0,6908	
F02	0,0097	0,4943	-0,097	
F03	0,4414	-0,13	0,6596	
F04	0,7691	0,3891	0,2714	
F05	0,5808	-0,083	0,5997	
F06	0,588	-0,199	0,4542	
F07	0,5077	-0,021	0,7691	
F08	0,5209	0,1245	0,4811	Confounder: 1 and 3
F09				
F10	0,5786	0,3137	0,3702	

Code	Persp. 1	Persp. 2	Persp. 3	Extra information
S01	0,1172	0,1013	0,5651	
S02	-0,148	0,164	0,7182	
S03	0,0887	0,8787	0,3149	
S04	0,2164	0,8719	0,2132	
S05	0,8018	0,3839	0,0542	
S06	0,3743	0,259	0,39	non-loader
S07	0,8026	0,2348	0,0189	
S08	0,6504	0,3881	0,4493	
S09	0,6687	0,2577	0,3489	
S10	0,4941	0,236	0,4345	Confounder: 1 and 3
S11	0,7047	-0,135	0,2174	
UK01				not Project Manager
UK02	0,7155	0,3749	0,2099	
UK03	0,3193	-0,411	-0,347	non-loader
UK04	0,6927	0,1543	0,2426	
UK05	0,808	0,0298	0,2406	
UK06	0,7321	0,2796	0,1999	
UK07	0,6578	0,3099	0,5261	
UK08	0,6602	0,3165	0,0789	
UK09				not Project Manager
UK10	0,5648	0,0448	0,675	
Total	20	11	9	significant loaders
			2	confounders
				non-loaders

Legend

	Significant at 0,01
	Significant at 0,05
	Confounder
	Non-loader

Table 5 - Q-analysis results - z-scores per perspective for each P-set respondent

There are two non-loaders – respondents S06 and UK 03, whose opinion expressed via the Q -sort does not strongly incline towards none of the perspectives. Two confounders between P1 and P3 - respondents F08 and S10, appear in the table, and in the further interpretation they are considered as loading on the perspective/factor where they score highest, P1.

Country-wise, Table 6 shows the participant's spread along the perspectives. Belgian managers have no respondents on P1, and most cases score on P2. Danish mostly opt for either P1 or P2, Finns for P1 or P3, Swedes and British - for P1. British register no managers on P2. Due to the small number of respondents, these results are not defining for what is the general attitude to be expected within the countries, but it is an indication of current tendencies in large projects.

Country	Number of respondents loading on		
	P 1	P 2	P 3
Belgium	0	4	1
Denmark	4	4	1
Finland	4	1	4
Sweden	6	2	2
UK	6	0	1

Table 6 - Number of loaders per perspective per country

5.3 Discussion - correlation between perspectives

Table 6 shows that P1 and P3 are highly correlated (68%), fact transposed into the high number of confounders between these two perspectives. Also, appendix D shows that the circumstances of the managers and projects involved are quite similar. In spite of these aspects, chapter Qualitative results of Q-sorts will present the core distinguishing aspects that support separate analysis of these two factors, instead of merging. P2 is the most distinguishable, and it is mostly due to the project's external environment. The differences between P2 and P3 appear to be the largest.

	P 1	P 2	P 3
P 1	1,0000	0,4649	0,6879
P 2	0,4649	1,0000	0,2882
P 3	0,6879	0,2882	1,0000

Table 7 - Correlation between perspectives

5.4 Conclusions

With regard to the P-set, a similar numbers of respondents was initially acquired from all target countries (9 to 11 per country). After excluding participants whose characteristics deviate from the P-se (different job position or working under DBFM contracts), Q-sorts from 42 respondents were further analysed. (5 Belgians, 9 Danes, 9 Finns, 10 Swedes and 7 Brits). An overview of the characteristics of these 42 managers was given. Although there was no large spread found along the levels of their parent organizations or difference in the respondent's backgrounds, the projects they lead varied in typology and size, making it a relevant lot for our P-set preconditions and research.

The Q-analysis led to a solution of 3 different factors, further described as common perspectives on project success. 20 respondents load significantly on Perspective 1, 11 on Perspective 2 and 9 on Perspective 3. From these, 75% are strongly identified with their perspectives, their loadings being significant at the 0.01 level. There are two confounders between P1 and P3, and also two respondents who did not load on none of the perspectives.

Belgians inclined for P2, Danes were split between P1 and P2, Finns between P1 and P3. Swedes and Brits all inclined towards P1.

Perspectives 1 and 3 are strongly correlated, whilst the second perspective has more particular characteristics. This quantitative data will receive further interpretation in chapters 6 and 7.

6

Qualitative results of Q-sorts

The results of the factorial analysis with 3- factor solution are the basis for revealing the 3 common perspectives on project success of the interviewed project managers, as presented in this chapter. The quantitative outputs of the Q-methodology factor analysis – factor scores, arrays and distinguishing statements per factor were used for the qualitative description, along with the respondent's reflexive explanations gathered whilst performing the q-sorts.

Aids in perspective description

The tables used to describe the perspectives will contain the following colour codes for non/distinguishing criteria within the tables or figures, respectively for different category groupings of the success criteria, according to the project aspects that they concern (the iron triangle is marked with *):

Legend tables:	Legend graphs:
	Execution Process
Distinguishing criteria	Resultant product
Neutral criteria	External environment
Non-distinguishing criteria	Socio-political aspects
	Client organization

Execution Process	14 Safety
	19 Within budget*
	2 Delivered on time*
	4 Efficient use of the available resources
	6 Good working relationship with contracting partners
	13 Right process is followed
Resultant product	5 Fit for purpose
	7 Impact on the environment, sustainability
	12 Quality*
	18 Satisfies needs of users
External environment	10 Profitability for contractor
	16 Satisfies needs of shareholders
	17 Satisfies needs of stakeholders
Socio-political aspects	11 Project specific political or social factors
Client organization	1 Continuation of client organization
	3 Effect on the professional image of client organization
	8 Learning opportunities for client organization
	9 Personal growth and development
	15 Satisfies needs of project team

Table 8 - Category groups for success criteria

6.1 Perspective 1 – Product – oriented management

The first perspective – P1 - is common for 20 of the final set of 42 respondents. From these, 15 strongly identify with it, having significant loadings at the 0.01 level. There are 2 confounders between P1 and P3. P1 includes managers from 4 target countries, most of whom in charge of projects well off in execution phase. There are no respondents from Belgium loading on this perspective.

The following figure shows the ranking of success criteria for P1 (the iron triangle is marked with *, and the distinguishing statements with #):

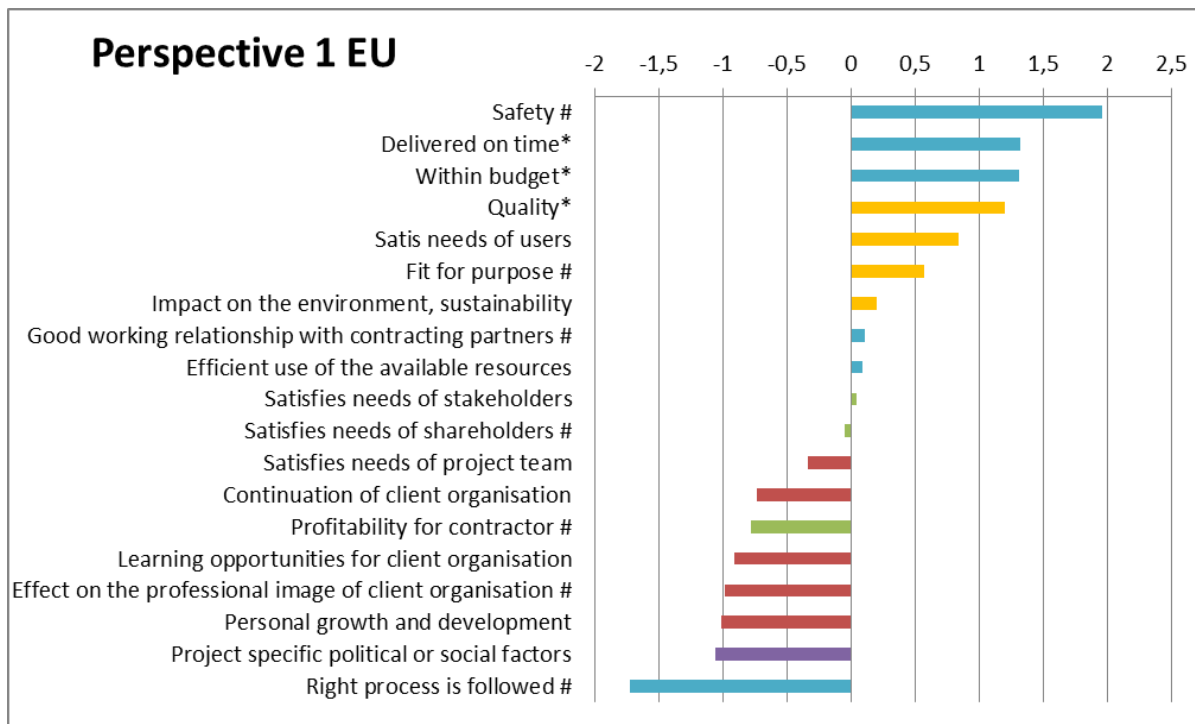


Figure 5 - Criteria ranking for P1

Perspective 1 is common to managers who emphasize safety and focus on fulfilling their mission: delivering a quality product, fit for the needs of the users. Indicators of the iron triangle are essential for a successful delivery. Also, they value the relations with the project team and contractors more than the client organization's goals and image. Growth and development are not a success objective or goal per se, but a by-product. P1 managers are able to keep track of the human factors surrounding a project, without prioritizing them over project goals. Managers tend to disagree with following the "right" process blindly – there is flexibility in their approach. Managers can maintain the ensemble view, not getting lost in operational details or procedures, and keep to the scope.

Ranking of criteria for P1:

Safety is by far the most important success factor for this perspective. It encompasses safety during execution, for both workers and traffic participants, and safety after implementation, during the lifespan of the product. It is followed by the three aspects of the iron triangle: a project delivered on time, within budget and with the appropriate level of quality – in this order of relevance. Thus, aspects related to the **execution process** are determining in assessing success. Coming next are criteria related to **qualities of the product to be delivered** – besides quality, its capacity to satisfy user needs, its fitness for purpose and its impact on the environment.

In the neutral area of relevance for success, there are **aspects related to the people involved** in or surrounding the project: the relation with contractors and the use of available resources, stakeholders, shareholders and the project team. Stakeholders can have contradicting wishes, difficult to please and that cause disturbance by changes in late execution phase. Tending to the human factors is considered secondary in this perspective. However, it is more important than criteria related to the **client organization**, its permanence, image and growth (organizational and personal), which score on the low side. Also, the profit that contractors can make is ranked on a par with the client organization's goals – they are one joint team, working for a higher scope. Learning on a personal or an organizational level accompany the process, but are not especially sought.

Attention to **political and social factors** is even less relevant – if project indicators are in place and stakeholders are listened to, there should be no need for political interference. Following the **right process stands at the bottom** of the range: processes ensure legitimacy, they are an organizational necessity that can be challenged in order to adapt to situations and reach better results.

Table 9 contains detailed factor scores, arrays and distinguishing statements for this perspective.

Distinguishing criteria for P1:

The following statements are distinguishing for P1 at $P < 0.05$ level (* indicates significance at $P < 0.01$ level):

14* – Safety (factor score 1.95, array +3, versus array for P2_0; P3_1)

UK02: “in Network Rail, safety is to priority. We need to make sure everyone gets home safe every day. Incidents will cause time delay and increase costs.”

UK07: “safety goes with performance, it’s not an option. Late changes lead to accidents”

S09: “Safety first! Project has no legitimacy if we can perform on time and budget, but at the cost of employees’ health or lives”

F04: “nothing is more important whatever the phase”

D06: “safety in both work and traffic is important on such a highly circulated road”

05 – Fit for purpose (factor score 0.57, array 1, versus array for P2_0; P3_0)

UK06: “not under or over scope, but the right scope for the right problem”

UK02: “we deliver requirements – fit for purpose is a given in Network Rail”

UK03: “fit for purpose is compulsory, else we struggle for 50 years with the outputs”

S10: “if the scope is not clear and adequate, the project won’t be successful”

S05: “we do the right thing, for the right money, fit for user needs”

D05: “not the best, but the right fitness for purpose”

06 – Good working relations with contracting partners (factor score 0.11, array 0, versus array for P2_-1; P3 _1)

B01: “collaboration with contractors helped the project”

UK01: “we are paid to achieve goals, not to get along well with contractors – but it helps”

F08: “good relations are nice to have, but not necessary for success.”

16* - Satisfies needs of shareholders (factor score -0.05, array 0 versus array for P2_2; P3_-3)

S11: “if we run a good project, we satisfy shareholders”

D06: “shareholders should be satisfied if time-cost-quality are fine”

10* – Profitability for contractor (factor score -0.79, array -1 versus array for P2_-2; P3_0)

F08: “if contractors go bankrupt it’s bad, as we deal with a monopoly”

F09: “a contractor’s job on a competitive market is to ensure earnings”

S10: “profit makes the journey more easy, but is not crucial”

D06: “it’s not my problem, but it’s easier to work when they earn”

03 – Effect on the professional image of the client organization (factor score -0.98, array -1 versus array for P2_0; P3_-1)

S08: “it is important to strengthen the organization’s image – but we do that by time-cost-quality”

UK05: “effect on image is important for our client – DFT – not for project success”

B03: “between colleagues, we have a good, professional image; but media makes us appear as liars”

13* – Right process is followed (factor score -1.73, array -3 versus array for P2_1; P3_0)

D01: “process is not an objective as long as the end results are achieved”

B09: “internal processes are ways to produce, useful for steering; external ones are law defined”

S05: “we work by the book, but the book is not the most important – as in Russia. You need to use your head and, at times, go in different directions”

S09: “processes are schemes, a hygiene factor, but if there are better different solutions, why not go for it?”

UK02: “UK was paralyzed by standards; if there are issues, process goes at the bottom of the pile”

UK04: “processes are there to be challenged – else there is no growth or innovation”

UK05: “mindlessly following details won’t bring about right decisions”

Most and least important criteria:

Safety as organizational culture; Politics and process on the periphery of the project

Safety detaches itself as the **most valued success criteria** (z-score 1.95). The reasons behind this consideration can be found both at an organizational level (many governmental organizations strain on creating a safety culture) as well as at a personal level (the managers feel responsible for causalities within their team – “everybody should get home safe”). Safety is important both within the project environment – the on-site labour force, as well as besides the project’s boundaries – many sites are urban sites, highly circulated and thus with high safety risks. In several countries, the head offices exhibited posters and fliers enforcing safety regulations – Network Rail in UK, followed by Trafiekverket in Sweden and FTA in Finland, were particularly keen on this aspect.

The iron triangle - On time, within budget and quality - second safety in ranking, with similar z-scores (~1.30). Several managers mentioned that safety issues happen mostly when there is time pressure. Keeping to the indicators is crucial for project success, but a trade-off where a project is delivered on time at the expense of casualties or incidents is not acceptable. P1 managers believe in achieving success in a project “by the book”

Following the right process is by far the least valued success criteria: processes are part of the bureaucratic mechanism of their organizations and are necessary for legitimacy, but since every project is unique, many adhere to the idea that there is no “right” way of doing things. If a manager is flexible and can devise an alternative, more efficient way of reaching project goals, success is not bound to the right process (see distinguishing statements list above).

Political or social factors are seconding in being **least valued**. Many managers view politics as out of the ring as soon as the project was decided upon and the budget was assigned. They consider that, as long as indicators within the iron triangle were in place, the politicians should not interfere with the project. F08: “Political factors are important before the decision is made”. F10: “the project is an isolated area, when things are done right, project will be successful anyway”. D10: “social function is not in project scope – tenders are international, not for local workforce”. UK02: “in UK environment, politics are not such a hassle in projects”.

A distinction is made between other external parties and politics: stake and shareholders’ interests rank in the neutral area (thus lower than in P3) – even in executions, managers know that they have to be aware of their needs, else these actors will take their toll on the project via politics. However, the project is seen as executed mostly for its users, and not for political reasons.

When we look at z-scores, we see the influence of political aspects is on a par with the attention to the client organization’s needs – project is an SPV, isolated and operated by focus on results.

Respondents bound by their analytic view and product-oriented approach

P1 managers and their projects have similar characteristics (and often ranking preferences) to those loading on P3: a strong technical background, experience in both sectors, advanced project phase, variation in contract types and budget, and other local clients besides the central government.

There are however a few facts that differentiate and bind them: Among P1 **respondents**, a higher percentage of managers (75%) have had **experience in both the public and the private sector**. This means they can see things from both sides of the fence, and know how to lead parties towards the desired project goals. Respondents scoring on this perspective have a **slight variance in educational backgrounds** – 3 out of the 5 participants that have different backgrounds score on P1: a mining engineer, a chemist and a lawyer/ civil engineer. These are managers that know “how and when to challenge” (UK06) and that can maintain the overview without getting lost in details. The 17 others are technical educated, experienced managers with high analytical skills and broad experience, and are capable to focus and prioritize key aspects in order to obtain the desired product.

The advanced project phase is even more pronounced than on P3: 3 projects are completed, 12 are well off into execution and 3 are in adjacent phases – tender/execution. Only one is in front end development phase, but unlike those in P2, it has local support (“99% of the people are pushing at an open door”) and thus its approval is not endangered. Furthermore, **10 out of 20 projects are not considered politically sensitive** (unlike P2 and P3, where the percentage of sensitive projects is higher compared to the number of respondents). Since the decision making moment has passed in most cases, there is less external interference with the project and the client - contractor team must focus on reaching the end results within the set indicators, and not bother about political interference. **The client** is just in 35% of the cases the national government – for the rest, local and external parties are also involved, which leads to a higher ranking of shareholder’s interests than on P3, for example.

When looking at project typology, we encounter a **higher percentage of rail projects** than in the other two perspectives: half of the respondents (from UK and Sweden) are in charge of large national rail projects. Rail infrastructure involves several disciplines both in execution and in exploitation, and a **quality end product**, fit for purpose and that satisfies users is essential for stable revenues throughout its lifecycle (UK04 - “fit for purpose is the most important for rail infrastructure – it’s about the freight train capacity”). Just 30% of the projects have a budget under 500 million euro. We are talking thus mostly about very large projects/ programs, where managers can delegate tasks and details, and focus on overall project goals and requirements.

Conclusions on Perspective 1

Managers loading on P1 are bound by their attitude oriented towards the outcomes of the project. Their previous experience, project phase and type could have an influence on this. They are technically trained professionals, operating in complex, yet defined environments, with clear goals. The focus is on the delivery of quality end results. These men on a mission have clear priorities: as long as there are no casualties (safety first), the iron triangle indicators are respected and the product is of substantial quality and fit for the user’s needs, there is no reason not to consider the project a success. Since the planning and decision making moment has passed, issues with stakeholders and political influence go in the background, and the focus shifts to delivery. P1

managers tend to downplay the influence of politics on their assignment, and seem to operate the project in an isolated environment. Only marginal interference is allowed from stakeholders and shareholders, as late scope changes are uncalled for. They exhibit a low priority towards their client organization's interests and processes, and performance ensures a good client image. The contractor's interests (profits) are on a par with those of the own organization –they are sailing in the same boat, towards the same scope, and collaboration is unconditional. Growth in experience is implicit, not sought after. They are highly independent and flexible, and refrain from following the

“right” process blindly. They consciously seek alternative ways and even innovation, for the sake of their utmost goal – delivering a high quality product.

Among the sister organizations of Rijkswaterstaat, about half of respondents from each country (except for Belgium) load significantly on P1 – within the current set of respondents, this product-oriented approach appears as the most common in

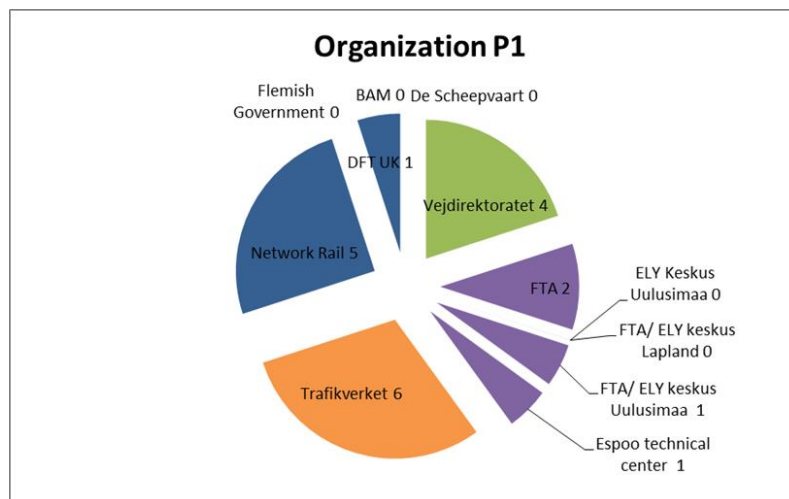


Figure 6 - Organization spread of P1 respondents

all North - Western European Countries. See appendix F for details.

Perspective 1 of 3

array	Statement	no	z-score
3	Safety	14	1,954
2	Delivered on time*	2	1,317
2	Within budget*	19	1,309
1	Quality*	12	1,199
1	Satisfies needs of users	18	0,837
1	Fit for purpose	5	0,566
1	Impact on the environment, sustainability	7	0,197
0	Good working relationship with contracting partners	6	0,108
0	Efficient use of the available resources	4	0,087
0	Satisfies needs of stakeholders	17	0,043
0	Satisfies needs of shareholders	16	-0,055
0	Satisfies needs of project team	15	-0,34
-1	Continuation of client organisation	1	-0,74
-1	Profitability for contractor	10	-0,785
-1	Learning opportunities for client organisation	8	-0,915
-1	Effect on the professional image of client organisation	3	-0,984
-2	Personal growth and development	9	-1,012
-2	Project specific political or social factors	11	-1,058
-3	Right process is followed	13	-1,728

Table 9 - Factor scores for P1, from most to least important

6.2 Perspective 2 – Management in politicized/ decision making context

The second perspective, P2, is common for 11 out of 42 respondents: 9 have significant loadings at the 0.01 level. P2 includes managers from 4 target countries, most of whom in charge of projects in Front End Development phase. No manager from the UK loads on this perspectives, whilst Belgian and Danish managers interviewed show a high inclination for it.

The following figure shows the ranking of success criteria for P1 (the iron triangle is marked with *, and the distinguishing statements with #):

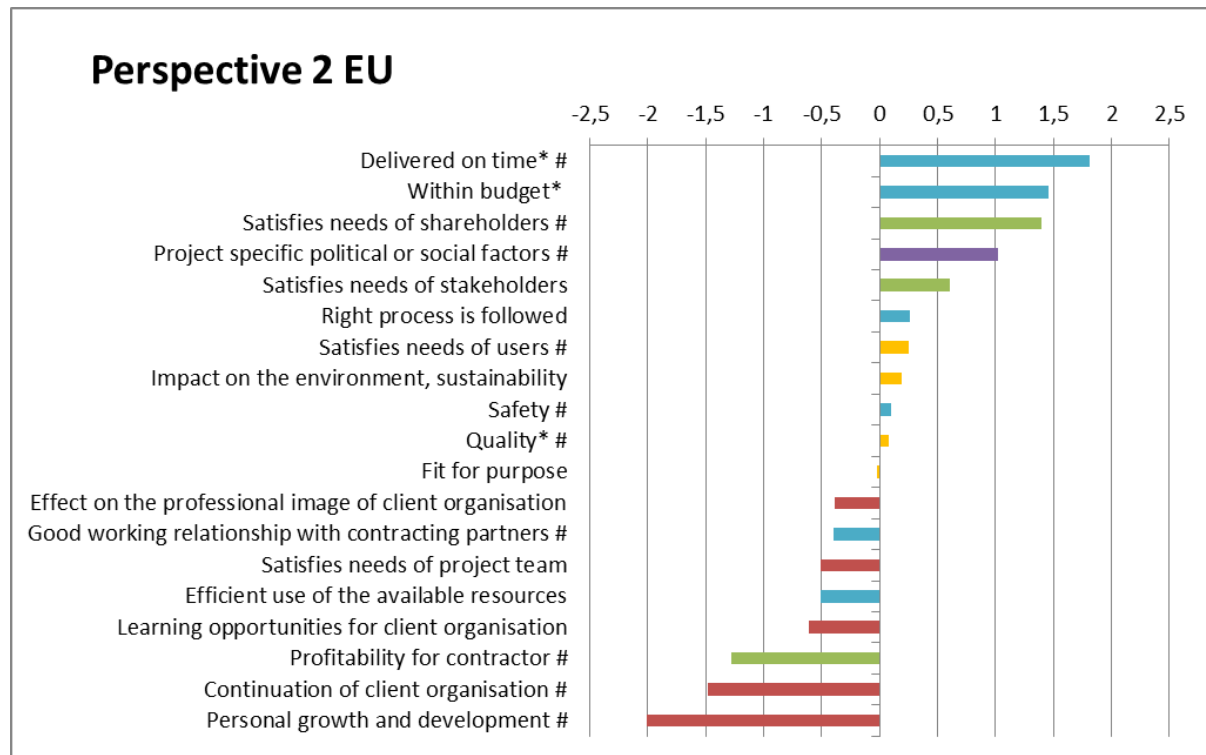


Figure 7 - Criteria ranking for P2

Perspective 2 belongs to managers who are, in most cases, working on projects which are still pending a final decision, or are politically driven. The front end development phase shapes their view on project success. The focus is less on the future users and qualities of the product to be delivered, and more on the decision makers upon whom the project still depends - political factors, shareholders and stakeholders. This makes the managers process bent, compared to Perspective 1. It is possible that these managers were selected precisely because they are empathic and know how to operate in such a complex external environment. Their mission is to prove they can deliver the project on time and within budget – explainable performance indicators. Quality, Safety and fitness for purpose are less important aspects for political support. Further, they value good relations with their contractors, but downplay the importance of them making a profit. Personal interests and those of their own client organization come last in defining project success, in such an uncertain project environment.

Ranking of criteria for P2:

Managers loading on P2 gave **time and budget** criteria the highest ranks, and see them as the key indicators behind every project's success. **Shareholders, Political factors and stakeholders**, follow up closely as influencers of project success, in descending order. Following the **right process** in dealing with them seems to lead to the project's success.

There is quite a large z- score difference from these criteria to the middle range – which includes **user needs, quality, safety and sustainability and fitness for purpose**. These aspects relate to the final product, are seen as of average importance in order to achieve success, for P2 managers. The final product is still far off in the future, so product-related criteria are not crucial at the moment. P1 shows the mirrored situation, where the final product weights heavier for success than the needs of the external actors – according to the advanced execution phase.

The further group, scoring on the low side, includes aspects related to the internal project environment: the **project team, relations with contractors, the efficient use of resources, the client's image and learning opportunities**. In unstable circumstances, projecting a professional image of the organization is important. Client team and contractor's interests are given similar ranks, on the low side, but contractor's profits are downplayed and get the third lowest position.

The lowest ranking success criteria, with similar scores, are the ones relating to **organizational continuation, personal growth and the contractor's profits**. Personal interests need to be kept on the low, and the focus of managers is heavily stirred towards the actors external to their project.

Table 10 contains detailed factor scores, arrays and distinguishing statements for this perspective.

Distinguishing criteria for P2

The following statements are distinguishing for P1 at $P<0.05$ level (* indicates significance at $P<0.01$ level):

02 – Delivered on time (factor score 1.81, array +3 _ versus array for P2_3; P3_2)

B04: "being on time is crucial; other projects are dependent on this project's completion"

B06: "you have to plan well to be on time; if you see already the problem, it's too late"

D05 and D07: "being on time is important; we have a strict deadline linked to external factors"

S03: "this project comes 20years late for the area's development; we need to finish on time for the community"

16* - Satisfies needs of shareholders (factor score 1.40, array 2 _ versus array for P2_2; P3_-3)

B07: "port, city, government - we need to follow their wishes, the authorities define how the road should be"

D04: "shareholder/government needs prevail; it is the first project that this minister opens"

S04: "we need to please shareholders, representatives of public money"

D06: “we need to answer to questions from shareholders (the government)”

11* – Project specific political or social factors (factor score 1.02, array 1 _ versus array for P2_1; P3_-2)

B07: “politics are fierce in this urban area; you cannot do anything without involving partners”

S03: “a new political party causes pressure against the project and might enter coalitions”

S04: “no hard decision was reached so far”

D04 and D05: “this project is created for local social goals, it is a political project”

F02: “there was a long discussion for such a small project”

18* – Satisfies needs of users (factor score 0.25, array 1 _ versus array for P2_1; P3_1)

B05: “the projects are realised for their users”

14* – Safety (factor score 0.10, array 0 _ versus array for P2_0; P3_1)

B07: “safety is the key to success; infrastructure always had and will have safety issues attached”

12* – Quality (factor score 0.08, array 0 _ versus array for P2_0; P3_2)

S04: “quality is obviously important; but the question is – what level of it should we provide”

6* – Good working relations with contracting partners (factor score -0.40, array -1_ versus array for P2_0; P3_1)

10* – Profitability for contractor (factor score -1.27, array -2 _ versus array for P2_-2; P3_0)

S03: “on a free market it’s the contractor’s job to fend for themselves”

D02: “profits are not our issue – when you cut to the bone, we have a business relations with contractors”

D04: “it’s important for contractors to go away with benefits; all parties should win”

1 – Continuation of client organization (factor score -1.48, array -2_ versus array for P2_-2; P3_-1)

S03: “Trafiekverket ‘s continuation is not in danger, other factors are more important”

S04: “if project fails, it will affect trust in future projects”

B06: “continuity is not important for success; BAM exist for the sake of this project, without the project there is no need for BAM”

9* – Personal growth and development (factor score -2.00, array -3_ versus array for P2_-3; P3_-1)

B04 and B05: “personal interest has lower level than societal, public or organizational interest”

S03: “personal growth included in needs of the project team”

D05: “the ministry’s goal is not the personal development of managers”

Most and least important criteria: on time and personal growth

Delivery on time tops the list of success criteria – as main indicator for the political parties. In already decided, political projects, the deadline is connected to a parallel, more important, development (Hospital/ Ten-T network/ Midsummer festival). Time is closely followed by **budget, shareholder needs and political factors**. **Time and budget** are main health indicators for the project, and they are easily understood by politics/ shareholders, whilst quality and safety (scoring 0 – neutral) are more difficult to estimate and be priced.

The **least important** success criterion is assessed to be one’s **personal growth and development**, followed by **continuation of the client organization** and **profitability for contractor**. Any project leads naturally to a learning process, but that is not a main objective. Personal benefits for either the client team or the contractors should not prevail, on P2 opinion, over external influences. The profit contractors can or cannot make is seen as of little relevance, compared to the other two perspectives. The pending decision might induce bias in this aspect, and, as project moves towards execution, is expected to shift. In most cases, the future of the client organization is not at stake, whatever the fate of the project. There are two exceptions – in Belgium, the project is the *raison d’être* of the organization – thus no project, no reason for its existence. Nevertheless, criteria 1 received a low score overall in this perspective.

Respondents bound by decision-making process and external complexity

The projects that scored high on the second perspective are bound together not by their education, organization, projects scale (varies from very small to megaproject) or contract type (no particular prevalence), but by the project’s incipient phase and the manager’s sensitivity to political and external factors.

In 8 of the 11 cases, the **political decision** or the permits are still pending approval and project is still in **front end development phase**. Large projects (as in Antwerp or Gothenburg) are the key behind regional development, but they have been under discussion now for years. Since a **final political decision** was not reached in 80% of the P2 cases, it is obvious that political factors score higher than in the other two perspectives, determining a good deal of the manager’s agenda.

75% of the loaders on this perspective described the projects as **politically sensitive**, as well as medium towards high project complexity (P1 and P3 have a more balanced take on complexity, including several managers that don’t see the projects as so complex). B07: “politics are fierce in this urban area; you cannot do anything without involving partners”. The client is 40% of the cases the national government – for the rest, local and external parties are also involved, which leads in this context to a higher ranking of shareholder’s interests. It is important to check the significance of **shareholders** – for P2 respondents, often was the case that they included the taxpayers, from whose pocket the government takes the money for new developments, or the government agents themselves. In 5 cases, the funding came from state budget, whereas in the other 6, costs were spread among central government, city and other stakeholders.

Among the 11 cases that load on P2, three managers from Belgium and two from Denmark are actually working on the **same project**, and manifest the **same inclination** of perspective. Belgian P2

managers are colleagues on projects related to the same large (undecided) development. For Denmark, two respondents share a political project, in relation to a new regional healthcare development, with a high-pressure deadline. In the third case, the project was recently completed, whilst the last project is under deadlines, as part of the TEN-T network. For the remaining three cases, one project is in execution phase, but with a high (local) political influence (Finland), whilst the last two cases are new developments initiated in a complex and often hostile environment (Sweden). **Thus, we deal either with projects pending decision, or under time pressure – all driven by politics.**

The **fit for purpose** criterion scores **considerably lower** than in P1. This is particularly strange as 8 out of 11 managers were involved in project design. It might be that there is political pressure to get the project started, although it may not be the best solution for the problem at hand, or that the scope is still shifting due to the politics and stakeholder's influences. Time pressure is perceived stronger than the best alternative - S04: "quality is obviously important; but the question is – what level of it should we provide".

Note:

UK03 respondent is a non-loader, but that scores negative on this perspective – He is involved in a large scale rail project based on Alliancing, since its initiation, and has just public experience. His view is opposite P2 in several aspects: He is the only one among the batch of 50, who mentioned criteria 1 – continuity of client organization – as top priority, and puts emphasis on his project team. Opposing P2, he sees success as obtaining the best possible product, and that ranks low the needs of shareholders, process, time and budget.

Conclusion on Perspective 2

Managers loading on P2 are people able to deal with complex external project environments that manifest during the FED phases of the projects. Because of this, they have high social awareness, manifested by care for external actors, and a focus on right processes. The political pressure relates to well defined criteria: the timely and in budget elaboration of all phases is essential for their projects to proceed. Their priorities are clear, and geared by external influences: the iron triangle is split up; time and budget are essential as explainable indicators and project goals, whilst quality and safety receive lower emphasis. The quality and fitness for purpose of the final option is still subject to external influences, given the phase, and – paradox ally, it's not seen as key criteria for success. The client's image needs to be maintained. In this political arena, interests of the project team and of contractors need to be downplayed by the project leaders, for the sake of reaching the final goals.

Perspective 2 of 3

array	Statement	no	z-score
3	Delivered on time*	2	1,811
2	Within budget*	19	1,456
2	Satisfies needs of shareholders	16	1,4
1	Project specific political or social factors	11	1,024
1	Satisfies needs of stakeholders	17	0,612
1	Right process is followed	13	0,263
1	Satisfies needs of users	18	0,252
0	Impact on the environment, sustainability	7	0,195
0	Safety	14	0,099
0	Quality*	12	0,078
0	Fit for purpose	5	-0,025
0	Effect on the professional image of client organisation	3	-0,382
-1	Good working relationship with contracting partners	6	-0,401
-1	Satisfies needs of project team	15	-0,503
-1	Efficient use of the available resources	4	-0,507
-1	Learning opportunities for client organisation	8	-0,613
-2	Profitability for contractor	10	-1,273
-2	Continuation of client organisation	1	-1,483
-3	Personal growth and development	9	-2,003

Table 10 - Factor scores for P2, from most to least important

On this perspective we find several critical projects from Belgium, and Denmark, as well as some critical cases from Sweden and Finland. None of the UK managers scored on this perspective.

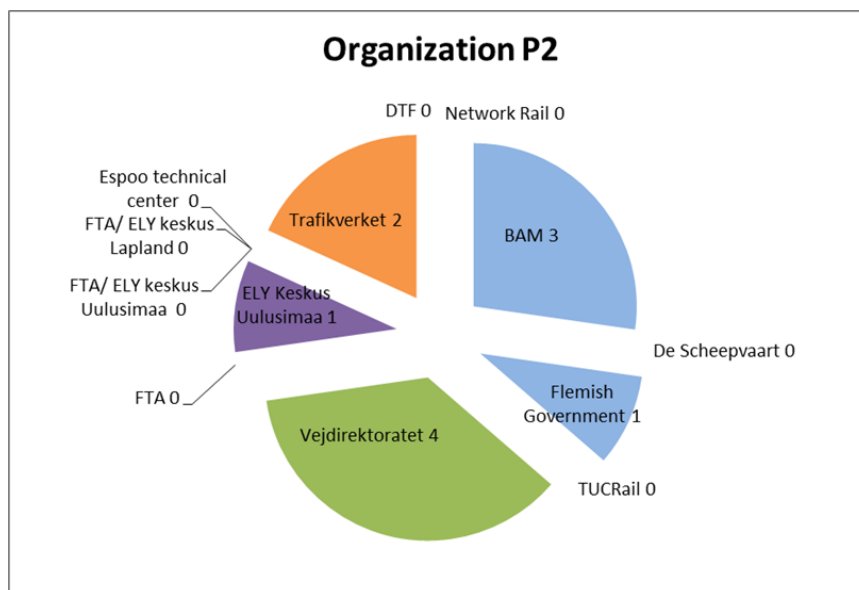


Figure 8 - - Organization spread of P2 respondents

6.3 Perspective 3 - Process oriented management

The third perspective is common for 9 of the 42 respondents: 7 have significant loadings at the 0.01 level.. There are also two confounders between P1 and P3. This perspective includes managers from all 5 target countries, most of whom in charge of projects well off in execution phase.

The following figure shows the ranking of success criteria for P1 (the iron triangle is marked with *, and the distinguishing statements with #):

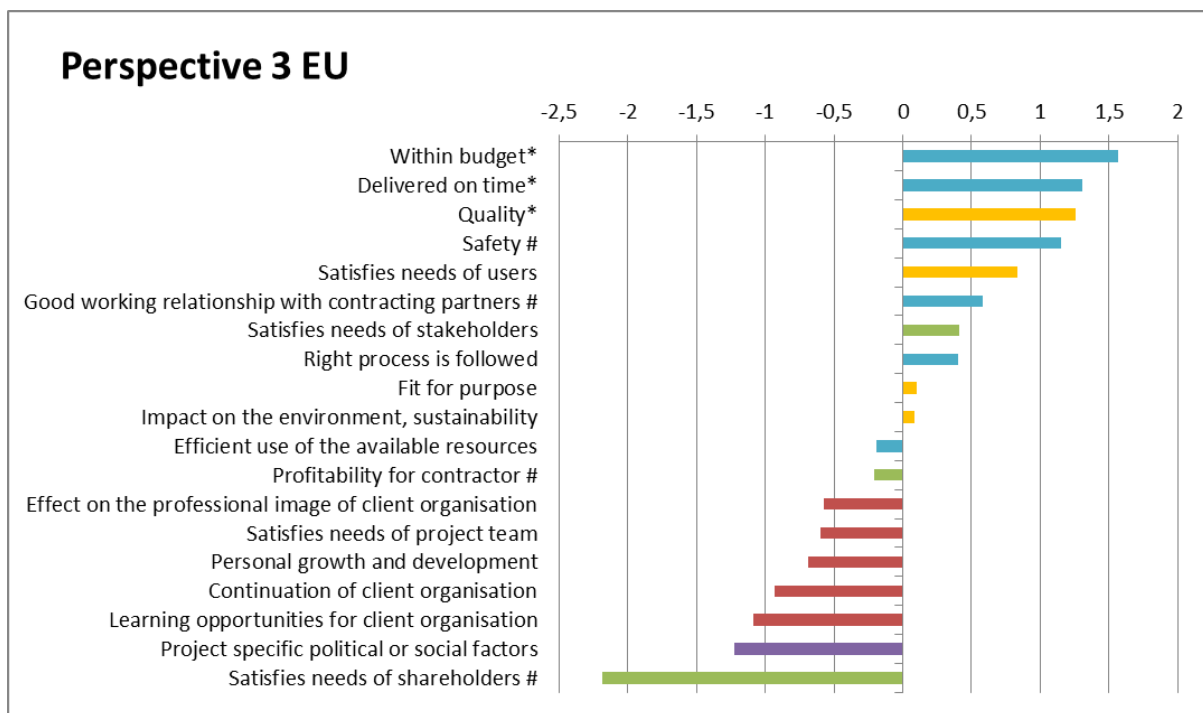


Figure 9 - Criteria ranking for P3

Perspective 3 belongs to managers who are socially involved and try to manage the expectations of external parties in order to achieve project goals. They focus on conducting their project according to the already traditional iron triangle's indicators (time, cost, quality) to guarantee success. Criteria related to the final product's characteristics are spread throughout the scale – product is just a means to fulfil the user and stakeholder needs. Furthermore, they appreciate cooperation both externally and within the project team, striving to have good relations with their contractors, and recognize the importance of them making a profit. The interests and image of their own client organization lose priority – the needs of external parties should be catered first. Just as P1 managers, they attribute less importance to political factors. As long as indicators are respected and stakeholders are happy, politicians and shareholder's influences should not interfere with the project.

Ranking of criteria for P3:

The **iron triangle** has the highest Z-scores, and is seen as the key behind every project's success. Budget ranks first, followed closely by time and quality. Safety ensues as success requirement – the mirrored situation when compared with P1; here, it is important, but not paramount. There is a small score difference from this set to the next group, which denotes special care for actors within or around the project's environment: **users, contracting partners, stakeholders** – and **following the right process** in what regards dealing with them.

In the neutral area, as in P2, there are criteria related to the resultant product (**fit for purpose, impact on environment**). A particular relevance occupy in this perspective the **contractors**: the relation with them and even their earning opportunities score relatively higher than on P1 and P2.

Criteria related to the **client organization** all gather on the lower side of the scale, seen as of less relevance to success than managing the stakeholders and user's expectations – particularly its continuation and the learning opportunities the project entails. **Political factors** follow closely, whilst **shareholders** receive the lowest ratings on importance to achieve project success, among all three perspectives – at more than one point z-score difference from the last criteria.

Table 11 contains detailed factor scores, arrays and distinguishing statements for this perspective.

Distinguishing criteria for P3:

The following statements are distinguishing for P1 at $P<0.05$ level (* indicates significance at $P<0.01$ level):

14* – Safety (factor score 1.15, array +1_versus array for P2_0; P1_3)

F05: "safety is an important topic, discussed in monthly meetings"

F07: "we have many employees and need to provide a safe work environment. We had one severe accident and one minor one"

S01: "you cannot trade budget for safety, if there are fatalities"

UK10: "quality and safety drive performance and puts project on track with time and costs"

06 – Good working relations with contracting partners (factor score 0.58, array 1_versus array for P2_-1; P1_0)

B02: "we invested a lot in having good relations from the very beginning. All parties believed in the project and wanted to do it right. We created a human alliance within this project"

S01: "we have an enhanced cooperation scheme with our contractors, due to the D&B contract. We communicate internally common goals and strategy. Goals are still more important than relations"

S02: "German contractors offered a better price; there are few Swedish companies able to handle such a project. We need to plan together with the contractors so as to save time and relocate risks"

D03: "contractors need to be aware of the value of good planning, if the right people are supervising, collaboration is easy"

F03: “we have to understand each other and cultivate team spirit”

F05: “we need good cooperation and communication, internally and externally. It was a lot of work, but it paid off”

UK10: “the people and their attitude are the most important during delivery. I lead by DCOM principles: Direction, Competency, Opportunity and Motivation”

10* – Profitability for contractor (factor score -0.21, array 0_versus array for P2_-2; P1_-1)

S01: “a contractor that makes no money might jeopardize the process or escape. In any case, a bleeding contractor won’t deliver a project on time and within budget.”

D03: “if contractor is clever, he will make the offer right. We cannot allow extra pays and bargaining.”

F05: “there were discussions with contractors, regarding the money needed for extra works – we are talking about taxpayer’s money.”

16* - Satisfies needs of shareholders (factor score 0.35, array 0_versus array for P2_2; P3_-3)

F01, F03, F05: “there are no shareholders; government pays for everything/ public money”

F07: “as long as we keep the project within budget, we need not mind where the money comes from (35% comes from municipality)”

S01: “even if there were shareholders, that’s not our issue”

B02: “the government, as shareholder, only cares about within budget delivery; if we manage that, they are happy”

UK10: “if you get time-cost-quality right, there are no problems with the Department for Transportation”

Most and least important criteria:

The managers that load on P3 lead believe in achieving success in a project by **following the Iron triangle** – realising the project within the given budget is the most desirable. F03: “budget is the most important, you cannot go over it”. F05: “must be within budget, we use taxpayer’s money”. D03: “staying within budget is the most important – we are measured on this, it is hard to get new money”. Time and quality follow up closely: B02: “there was a set deadline, it was important to minder hinder (disturb as little as possible)”; D03: “we have a set opening date, if we finish before it’s a great success”. F07: “Quality and budget are more important than delivering on time”.

On the lower side, **shareholder needs** score as the least important success criteria. This is seconded by **political or social factors** and by **learning opportunities** for the client organization.

We need to have a look at their definition of **shareholders**: as seen on the quotes on distinguishing statements, many managers considered stakeholders as external parties that pay – which was not the case in their projects. Even in the cases when the government – national or local – was seen as shareholder, as representatives of taxpayer’s money, its influence was belittled to the budget constraint, so no extra attention was considered necessary towards them.

The **political influence** should be minimum whilst the project health indicators are well and the actors surrounding the project are attended. UK10: “politics are a tick in a box, as long as you deliver first rank items, it is ok”. S02: “politics are important in initial stages, not in execution”. F03: “political influence is low in this small project”.

Learning opportunities for the client organization come with the package. S01: “it’s a long process, and what the organization learns is not so important. I need adaptive, skilled people, but their needs cannot be ahead of project goals.” B02: “scope is not to learn something; learning is a consequence”.

Respondents bound by collaborative attitude

The conditions under which P3 managers operate are similar to those of the managers scoring on P1 – project phase is mostly execution, and contract types and budget vary. Once again, 60% were involved in design and drafting specifications. A small difference is that there is a higher percentage of managers with just public experience, and working just for the government – with no other financing parties involved – and therefore try to understand better the contractors. This does not ease the understanding of differences between P1 and P3. Therefore, we can conclude that their approach does not stem from external factors, but from the manager’s internal framework. They are socially-aware of actors surrounding the project. This makes them keener on cooperation with contractors and tending to the processes and human factors within the project, then their P1 colleagues.

Several P3 respondents’ ranked good working relations with contractors as quite important (+1). They acknowledged the efforts they made to work efficiently with the contractor, using advanced collaboration schemes and building team spirit, and leading them towards the achievement of common goals (see distinguishing statement quotes). Finnish managers had relatively smaller client teams, thus stronger dependency on the expertise and manpower of contractors, whilst Swedish and British managers were involved in complex projects where the joint team effort really makes the difference towards a successful delivery (see distinguishing statement quotes). P3 managers do not belittle the importance of profits for their contractors, in order to have them committed to project goals.

Regarding complexity, opinions are slightly different: 60% see it as having medium to low external and organizational complexity – a higher percentage when compared to P2 and P1. This perception might have been because they took the extra effort with external communication and internal collaboration, thus the situation was under control and it did not reach a critical point. Collaboration is thus seen as conditional on efforts, as compared to the implicit view P1 has on it.

Safety is attributed a lower importance on this perspective, than on P1: for P3 managers the iron triangle prevails, and safety comes after. Also, many managers see user satisfaction and the quality of the final product as important. F05: “quality is crucial, the project will be there for the next 100 years”. F01: “quality of the end product is more important than being on time, in 30 years people will not remember the delay but will suffer if the quality is poor”.

Conclusion on Perspective 3

Managers loading on P3 are socially involved and try to manage the expectations of external parties in order to achieve project goals. They consider collaboration and communication as the basis

towards achieving a successful project. Special efforts are done to achieve efficiency within the delivery team – unlike P1 managers; they see collaboration as conditioned by attention to work processes, people and earning and development chances. Technically, they follow the traditional indicators of time, cost and quality, and are not willing to compromise on safety. The resultant product characteristics a bit ambiguous within the ranking, there is no clear focus on product itself. Managers see things in their external context, and the undertaking is a social service towards their users, not a political mission or an isolated, yet ideal, product. The image their organization projects tops the criteria related to the internal organization – but ranks after other actor's interests. Politics and shareholders are kept aside the project by keeping to indicators and tending to the human factors.

Perspective 3 of 3

array	Statement	no	z-score
3	Within budget*	19	1,563
2	Delivered on time*	2	1,303
2	Quality*	12	1,257
1	Safety	14	1,151
1	Satisfies needs of users	18	0,832
1	Good working relationship with contracting partners	6	0,585
1	Satisfies needs of stakeholders	17	0,412
0	Right process is followed	13	0,403
0	Fit for purpose	5	0,1
0	Impact on the environment, sustainability	7	0,084
0	Efficient use of the available resources	4	-0,19
0	Profitability for contractor	10	-0,21
-1	Effect on the professional image of client organisation	3	-0,575
-1	Satisfies needs of project team	15	-0,602
-1	Personal growth and development	9	-0,687
-1	Continuation of client organisation	1	-0,929
-2	Learning opportunities for client organisation	8	-1,089
-2	Project specific political or social factors	11	-1,222
-3	Satisfies needs of shareholders	16	-2,187

Table 11 - Factor scores for P3, from most to least important

There are 4 Finnish managers scoring on P3. From the remaining 4 countries, respondents scoring on this perspective are people-oriented exceptions from the P1 group.

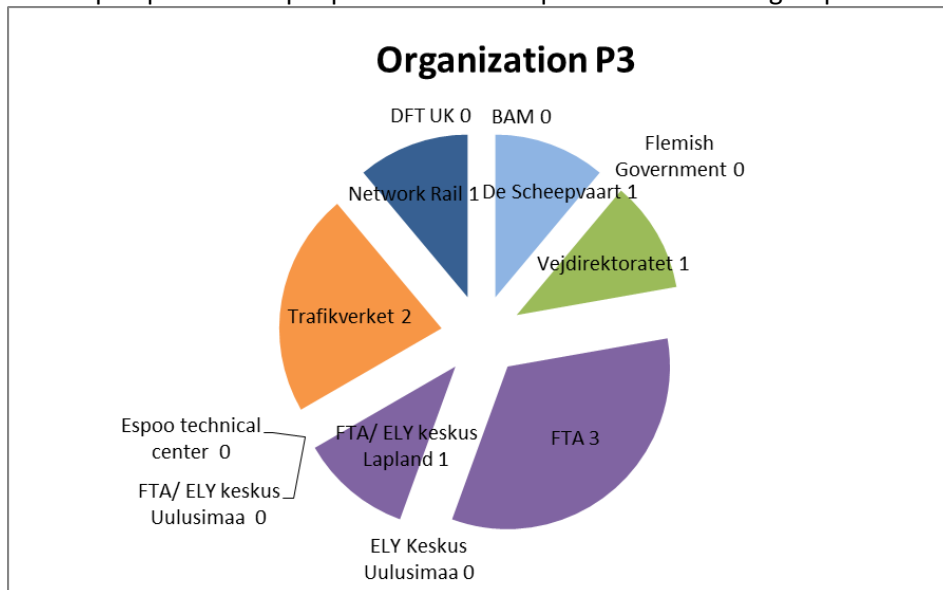


Figure 10 - Organization spread of P3 respondents

6.4 Similarities and dissimilarities between perspectives

Among the 19 success criteria enlisted, there are many criteria that play distinguishing roles for the three different perspectives identified, as well as a number of criteria upon which there is agreement in scores, whatever the perspective. This paragraph will bring more insight on overall agreement or disagreement between the perspectives, for each of these criteria. Also, the different scores that the 3 criteria forming the iron triangle receive will be brought to discussion.

6.4.1 Agreement on criteria – non – distinguishing statements

From an analysis of the z-scores of success criteria, it can be seen that there is agreement among respondents about the importance of four of the 19 success criteria. These criteria could receive uniform considerations – PQMethod is describing them as non-distinguishing criteria among the perspectives. Among the q-sorts, 3 of these statements receive a central, neutral array (0 or -1) thus; they do not have great importance for determining project success. The fourth one – within budget, is unanimously considered is a strongly determinant of success across all perspectives.

The first three neutral criteria are:

7 – Impact on the environment, sustainability – managers assign average importance on this item. It is not unimportant, but often perceived as “taken care of by” during the FED phases and included in the project scope prior to execution.

8 – Learning opportunities for client organization – managers assign a lower importance to this item. The projects will lead to a learning curve within the client organization, but in the majority of cases, delivery, and not learning, is the scope of the project. If learning occurs, it is as a by-product of execution processes, and is not particularly sought after. On P2, this criterion has a slightly higher ranking, perhaps due to the initial project phase, meaning most developments are still under way.

15 – *Satisfies needs of the project team* – managers assign an average importance to this item. The project team’s needs and motivation towards goals are important, however, as project success goes, managers need to prioritise product and external process items, rather than their own team’s needs.

The fourth non-distinguishing statement, *within budget*, is a hard criteria, placed by all managers at the top of the list regarding success criteria. It will be further discussed within the iron triangle’s scores among all perspectives (section 0).

Non-distinguishing criteria

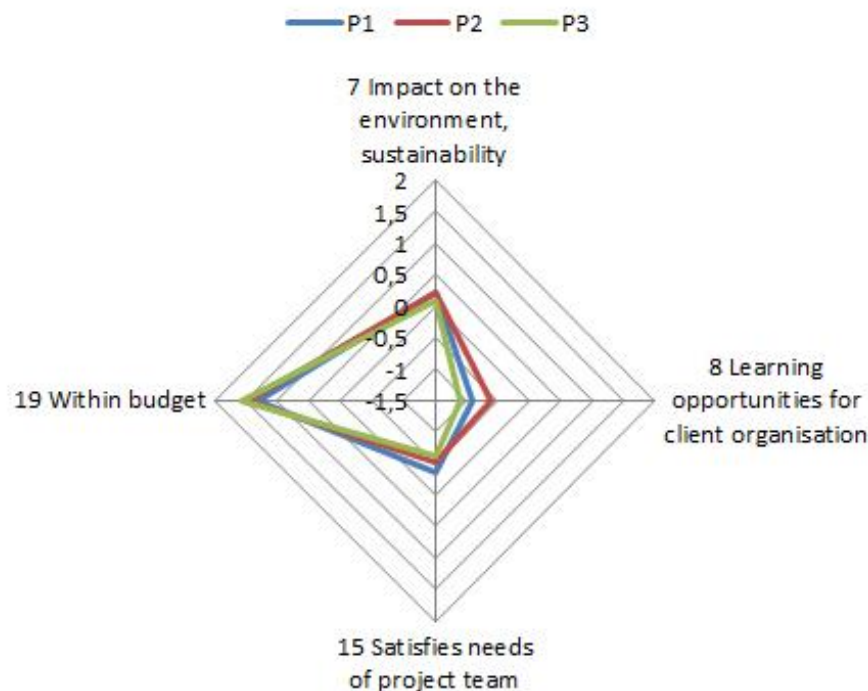


Figure 11 - Non - distinguishing criteria among perspectives

Non-distinguishing success criteria	P1 z-score	P1 array	P2 z-score	P2 array	P3 z-score	P3 array
7. Impact on environment, sustainability	0.20	1	0.20	0	0.08	0
8. Learning opportunities for client organization	-0.92	-1	-0.61	-1	-1.09	-2
15. Satisfies needs of the Project team	-0.34	0	-0.50	-1	-0.60	-1
19. Within budget	1.31	2	1.46	2	1.56	3

Table 12 - Non-distinguishing criteria -- z-scores and arrays

6.4.2 The iron triangle’s scores among perspectives

Two items pertaining to the iron triangle, *time and quality*, are hard criteria upon which there is less agreement among all perspectives. P1 and P3 are more similar on these aspects, whilst P2 gives a skewed view in what regards time and especially quality – time is more important than on P1 and P3, whilst Quality – a lot less. Budget is, as mentioned above, a non-distinguishing statement, showing similar scores on all perspectives.

2 – *Delivered on time* – receives proportionally different scores along the 3 perspectives. It is the most important criteria on P2, where timely delivery is part of the political objectives to be minded. It is of slightly less importance on P1, where Safety come first - since a timely delivery will not guarantee a safe environment, and on P3, where staying within budget is deemed more worthy. During the interviews there were mentions that haste always led to incidents, and it is not worth to risk lives to fulfil a deadline.

12 – *Quality* – receives similar rankings on P1 and P3, where the managers want to ensure that their mission is delivered up to standards. On P2, Quality scores substantially lower (average) - as the other, better quantifiable - aspects like time and budget, are more relevant to the political parties who will decide on the fate of the project.

19 – *Within budget* (scores 1.31/1.46/1.56; array 2/2/3) – managers on all perspectives assign a very high importance to this item, logically – as key performance indicator. On P3, it is the most important item, whilst on the other two perspectives; it occupies second rank, along with the on time criteria. It is logical for public managers to consider paramount a good management of the taxpayer's money that goes into infrastructure development.

The iron triangle among perspectives

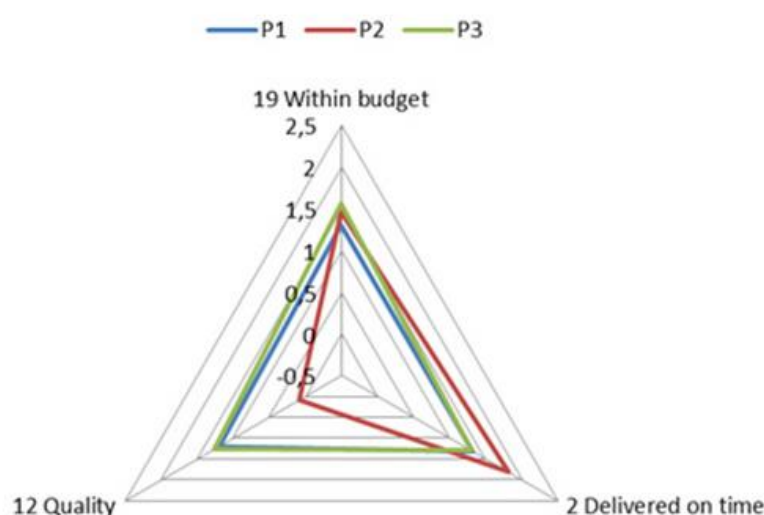


Figure 12 - The iron triangle among perspectives

Iron triangle	P1 z-score	P1 array	P2 z-score	P2 array	P3 z-score	P3 array
19. Within budget	1.31	2	1.46	2	1.56	3
2. Delivered on time	1.32	2	1.81	3	1.30	2
12. Quality	1.20	1	0.08	0	1.26	2

Table 13 - The iron triangle - z-scores and arrays

6.4.3 Disagreement on criteria – distinguishing statements

There is a considerably larger number of criteria upon the importance of which the respondents did not agree – showing larger differences in Z-scores. Which criteria do determine project success, and

record differences in scores, are the basis for distinguishing among the three perspectives. P2 is the most distinct, and skewed perspective in several aspects. Distinguishing criteria manifest an explicit view. In Figure 13, distinguishing criteria are grouped into categories defining various project aspects that these criteria concern: Execution Process, Resultant Product, External Environment, Politics and Client organization (see also chapter 0).

It is interesting to note that the distinguishing criteria considered **important for project success** are, besides the iron triangle, elements related to the **resultant product**, which are within the manager's reach, and/or the controllable elements related to the **external environment** of the project.

Except for the stakeholder needs, **external environment** criteria also register the largest score variation/ disagreement among perspectives: needs of shareholder; the right process and safety criteria. They are thus a worthy differentiation element amongst perspectives. We can see the correlation between P1 and P3, by how close their lines are on most of the other points, excepting these ones and those related to contractors and their needs. This is because these, along with politics, are the groups with the largest say in determining the fate of the project from the outside.

Managers are quite aware that their task is to deliver a quality **product**, fit for their user's needs; however, the weight of the end product in project success assessment varies among perspectives - the lowest scores being registered on P2, where political influences still shape the final design.

The **execution process** criteria show great variation along the scale and among the perspectives. Although many tend to score on the neutral to high side, there are strong disagreements, particularly on safety issues approach and on following the right process. Working relationships and timely delivery bring about more agreement among perspectives.

The criteria related to the **internal project environment** are also seen as distinguishing (although there is less difference between the 3 perspectives), and all **score on the low side** of importance for project success: continuation and learning opportunities for the client organization, needs of project team and personal growth, good relations and earning chance for contractors, and efficient use of resources.

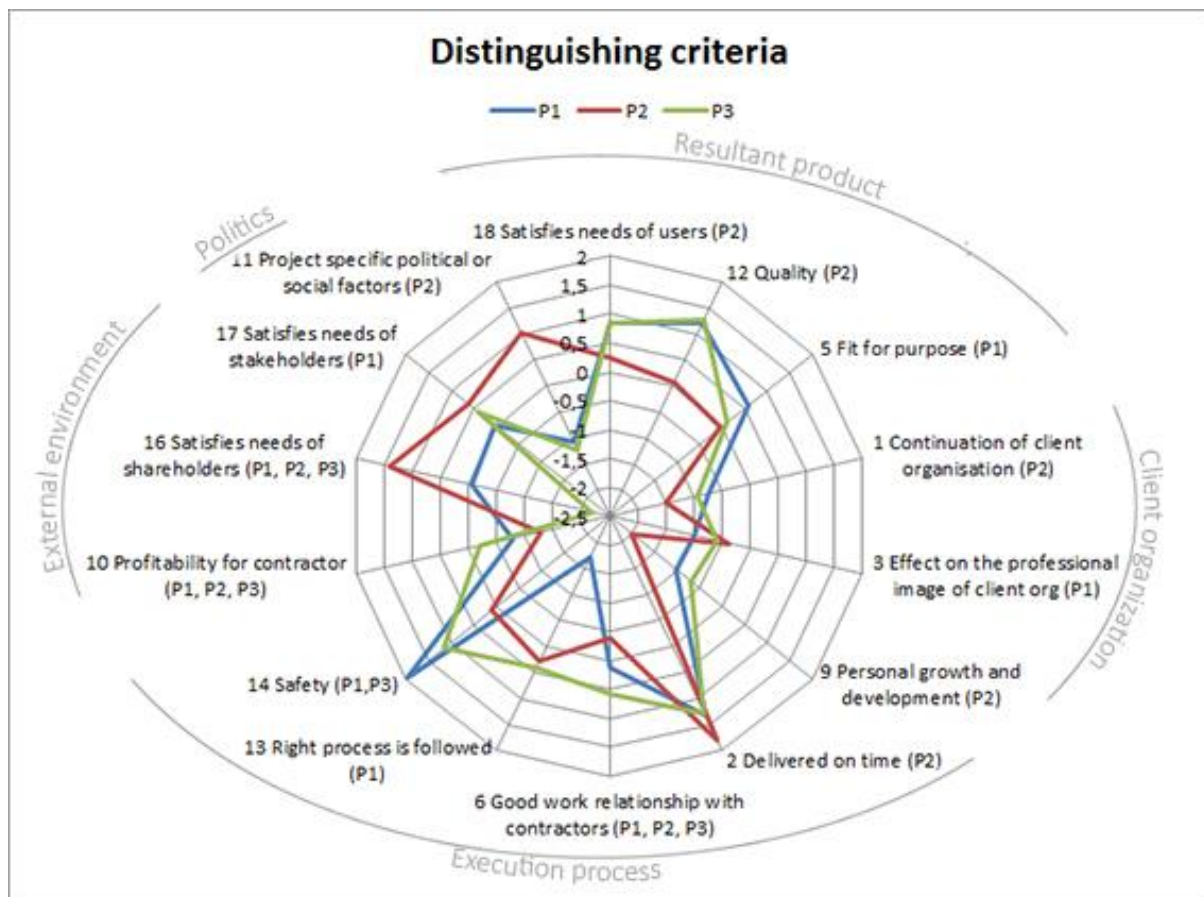


Figure 13 - Distinguishing criteria among the 3 perspectives

Distinguishing success criteria	P1 z-score	P1 array	P2 z-score	P2 array	P3 z-score	P3 array
18. Satisfies needs of users	0,84	1	0,25	1	0,83	2
12. Quality	1,2	2	0.08	0	1.26	1
5. Fit for purpose	0,57	1	-0.02	0	0.10	0
1. Continuation of client organization	-0,74	-1	-1.48	-2	-0.93	-1
3. Effect on the professional image of client organization	-0,98	-1	-0.38	0	-0.57	-1
9. Personal growth and development	-1,01	-2	-2.00	-3	-0.69	-1
2. Delivered on time	1,32	2	1.81	3	1.30	2
6. Good working relationship with contracting partners	0,11	0	-0.40	-1	0.58	1
13. Right process is followed	-1,73	-3	0.26	1	0.40	0
14. Safety	1,95	3	0.10	0	1.15	1
10. Profitability for contractor	-0,79	-1	-1.27	-2	-0.21	0
16. Satisfies needs of shareholders	-0,06	0	1.40	2	-2.19	-3
17. Satisfies needs of stakeholders	0.04	0	0,61	1	0,41	1

Table 14 - Distinguishing criteria - Z-scores and arrays

Politics

11 – *Project specific political or social factors* – on P2, political influence is quite high in the encompassed projects – due to pre-decision timing or to project environment, thus the scores on criterion 11 were quite high. On the contrary, on P1 and P3, political influence is seen as marginal to the project, and the scores on this criterion are very low. These managers either disregard their influence after the decision was made, or consider that keeping the project on track is enough to maintain their support.

External environment

17 – *Satisfies needs of stakeholders* – this criterion did not receive highly distinguishing scores among the perspectives, and was ranked on the neutral range of the scale. Only P1 managers, focused on product delivery, pay less attention to stakeholders, since they consider difficult, if not dangerous, to include late scope changes according to everybody's wishes. Given the late project phase, we can imagine that stakeholder considerations were already taken. In consequence, this is a distinguishing criterion particularly for P1. P2 and P3 managers are more socially aware, and take special efforts to maintain stakeholders at least involved and informed, even if they cannot please everybody. This criteria was particularly relevant for P2 projects who are just starting, particularly during expropriation, or for projects upon which there is social disagreement.

16 – *Satisfies needs of shareholders* – is a criterion that received extreme views. Respondents from all 3 perspectives are disagreeing on its importance. P1 respondents ranked it the lowest, as they saw either no external shareholders involved in their projects, or considered governmental or not stakeholder's needs covered by tending to the *within budget* criterion. On the opposite side, P2 respondents gave it very high scores, seeing in it the (representatives of) the taxpayer's money, upon who's good will their projects depend on during decision making, and saw it as very relevant for success. Decision maker's wishes need to be included in conditions in order to receive approval and funding. P3 respondents had a moderate view, scoring it average to high, alongside criteria related to other external actors.

10 – *Profitability for contractor* – scored on the low side of the scale, and recorded less difference among perspectives. It is, however, a distinguishing criterion for all 3 perspectives: P3, the collaboration-prone managers, showed the greatest interest towards a win-win deal for all parties, including contractors. P1 managers are also aware of how earnings smooth the process, but were not keen in taking special efforts in that direction, whilst P2 managers see it as completely out of their scope, and a responsibility of the contractors themselves. Of course, no big contracts can be in place prior to decision making.

Execution process

13 – *Right process is followed* – is a distinguishing criterion particularly for P1, where it scores very low. These managers are strongly against leading a project exclusively by the rules, and prone to search for alternatives and innovation in their quest for a quality product. P2 and P3 managers scored similar, attributing the right process a relatively higher importance. This is because their dependency or orientation towards external parties, and thus the need for a legitimate and correct manner of dealing with human factors.

6 – *Good work relations with contractors* – scored mostly in the neutral area, with smaller differences among perspectives. P3 managers value their collaboration with contractors the most, and see them as crucial partners in the process. P1 managers consider it less important, and see themselves involved purely in a business relationship. P2 managers are the least oriented towards their private counterparts – for them, client and contractor team interests must be kept on a low, in favour of the external influencers.

12 – *On time* and 14 – *Safety* were discussed in paragraph 0. dealing with differences on iron triangle characteristics among perspectives.

Resultant product

5 – *Fit for purpose* – is a contrasting criterion for P1, where it is ranked higher. This is because of the interest P1 managers have in delivering a high quality, adequate product. After all, contributable money should be spent in the best possible manner, for the right solution. P2 and P3 managers give it an average ranking, and show less interest for this criterion. This goes in spite of the early project stage on P2, where scope is still to be defined – it appears as scope definition is bent by the will of the decision makers.

12 – *Quality* – receives similar rankings on P1 and P3, where the managers want to ensure that their mission is delivered up to standards. On P2, Quality scores substantially lower (average) - as the other, better quantifiable - aspects like time and budget, are more relevant to the political parties who will decide on the continuity of the project.

18 – *Satisfies needs of users* – was highly valued by all managers, particularly by those loading on P1 and P3. They see their assignment in perspective, and know the product they are called to deliver is meant for the future user's satisfaction, and has a long lifespan. P2 managers gave less emphasis to users (average scores), as in their project, other interest groups (stakeholders, politics) are more vocal with their wishes, demand more attention and effort (at least prior to the decision moment).

Client organization

1 – *Continuation of client organization* – received overall low scores, and some disagreement among perspectives. P2 scored it the lowest – either because the continuation was not endangered, or because there was no *raison d'être* for their organization without the given project. Either way, continuity was not regarded as a goal. Respondents from the other two perspectives ranked it slightly higher, as they were operating projects in a more stable environment, and they felt no threat of the project going wrong for their organization's continuity.

3 – *Effect on the professional image of the client organization* - had more importance for success than other criteria within this category, but it still had low scores. P1 managers, who place less emphasis on external actors, also scored lower on this criterion. They treat their projects as entities separated from their mother organization, and as such do not consider the fate of the final product they are to deliver as bound to stain its image. P3 and P2 managers, more socially aware, place a higher worth on the organization's image, as conditioning a successful project.

9 – *Personal growth and development* – scored on the low side, as it is politically correct for public servants. P2 managers showed the most distinguishing view, in a negative direction: they play low on their personal interest, along with that of their team, as they know that other actors must have

priority, in order to have continuity in their project. P1 and P3 scored slightly higher on this criterion, but still placed it at the bottom of the pile related to the internal organization. Personal interests should not interfere with their mission.

6.5 Discussion on correlation between perspectives

The PQMethod software provided the correlation factors between the different perspectives, as seen in section 5.3. Based on the interpretations, more details can be given on the reasons behind these correlations.

P1 and P3 are highly correlated (68%) and thus comparable – even the characteristics of managers and projects loading on them are quite similar. All loaders highly appreciate keeping to the iron triangle, safety and user needs, as success factors, and see as of little importance the interests of their own team and organization, and political factors. There are however some distinguishing z-scores among these perspectives – mostly related to the product, and external factors (contractors, shareholders) and following the process – which are deemed more important by P3, but less so by P1. These are actually the factors that differentiate between managers that are product oriented and those that focus more on the external delivery process.

On the other hand, P2 comes forward as the most distinguishable among the set, as per criteria ranking, due to the project's phase and external environment. The difference between P2 and P3 appears to be the largest (correlation of just 28%). But for an on-time and within-budget delivery, right process (!) and for the low ranking of criteria regarding the own organization, the conditions for success among these two perspectives are quite different. Particularly criteria related to external actors, politics - and also those related to contractors, receive divergent z-scores for these two perspectives. Same holds mostly also for P1 with respect to P3, adding the different views on process and product. However, P2 and P1 have one peculiar similarity is the low interest for the contractor's profitability, in spite of distinct views towards having a good relationship with them.

6.6 Lessons to be learned

The research led to derive three perspectives that managers can have on project success, in North-Western Europe. These perspectives attach, as shown, different importance to specific success criteria, and have different focus points in the process. Perspective 1 aims for the end result – the final product, Perspective 2 – for the intermediate result – the decision to go or public and political support, whilst Perspective 3 is also interested in the per course towards the result – the actual delivery process. P1 and P3 appear to be the result of a personal approach of the managers, whereas P2 seems to be influenced by its environment, the incipient project phase in particular.

The perspectives are defining for this set of managers, and if other respondents with characteristics fit for the P-set are added, they would be relatively stable. It cannot be said that just one of them is the right approach towards project success. However, it is possible to show strengths and weaknesses, in order to create a learning process based on this research.

Perspective 1 managers seems to operate in an isolated environment, and managers attach little importance to influences of external factors. If the aim is a high quality product, then this is of course the most efficient approach. However, if this external situation becomes unstable, it would be wise to learn from P3 and tend more to the people factor and to politics. Delivering a technically

correct product is no guarantee of stakeholder satisfaction, particularly if they felt left out of the process. Also, having a more open and collaborative approach towards contractors might be an aid to get them committed to a quality delivery. On the other hand, Perspective 3 managers might be too reactive to external input, so as the priorities and goal become blurred by punctual influences on the way. Therefore, it is wise not to lose track of the final goal during the process, and to properly filter which external feedback to apply and which to keep aside, in order to deliver as expected.

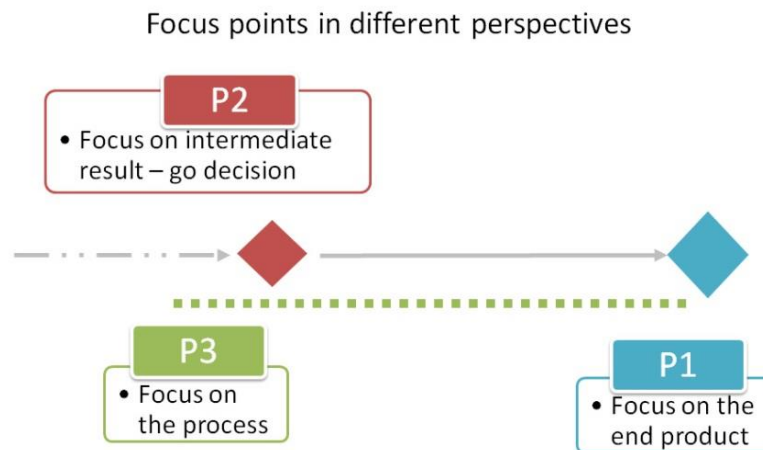


Figure 14 - Focus points for different perspectives

In FED phase, up to the point the political decision is made, other managers are also likely to adopt perspective 2. For P2 loaders, it was mentioned during the interviews that the situation is in function of circumstances, and that if these change, their attitude and ranking might also do so. As soon as the decision is made in the respective projects, a shift can occur towards one of the other two perspectives – typical for execution phase. This is also the case throughout projects with complex external environments. Thus, P2 managers may adopt further on either the P1 or the P3 approach. The choice is influenced by the personal inclination. P3 is an expected for managers who are people-oriented, and more skilled in soft approaches, whilst P1 – for more technical managers, focusing on the bottom line and delivering the product they were in charge of, but also on the sensitivity towards human factors of the manager.

Shift in perspective when moving from Front end development
to Execution, after decision is final

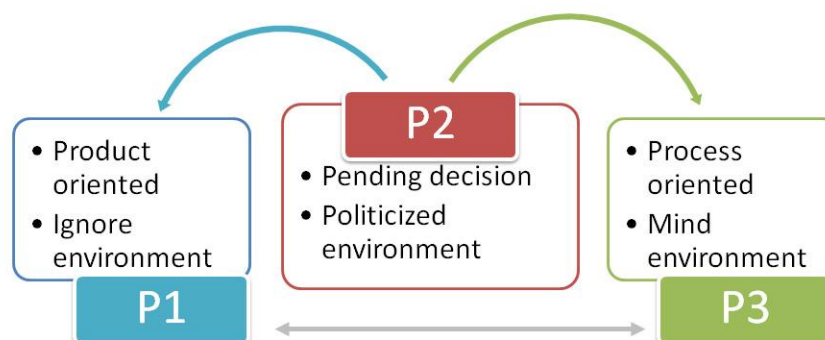


Figure 15 – Expected shifts of managers between perspectives

A preliminary assessment, done by administrating the Q-sort to both public and private leading partners at the beginning of each relevant phase of the project, would help increase awareness of each other's intentions, and better understand the goals and external nature of the project.

6.7 Discussion - evaluation of the Q-sample

At the end of the interview, managers were asked to evaluate the success criteria and definitions presented for sorting, and to suggest additions to the list if they considered it appropriate. That way, the Q-sample can be adapted for further research.

The great majority of managers showed themselves satisfied with the presented criteria list, considered it extensive enough and did not feel the need to add any new criteria. The iron triangle, political influence, stakeholders and users were the better recognized the rest of the criteria in the list. However, there were a few of managers who made observation regarding the interpretation of certain success criteria, that would have framed one of the criteria differently - but at the end, they declared themselves satisfied with the broad definitions at hand.

The criteria that was found more difficult to comprehend was the first one - continuation of client organization. Its explanation was "the project contributes to the continuation of the client organisation and to achieving the organisation's goals". On one hand, the interviewees came from large, established governmental organizations, whose continuation was not endangered by setbacks in one particular. Just one organization had as scope one specific megaproject, and its continuation had little sense once that project would be delivered. On the other hand, achieving success in the project was seen as achieving the goal of their organization, and not the other way around. What two respondents mentioned instead was that, at first glance, this criteria suggested to them the permanence of the same people within the project team, in order to maintain knowledge. Similar observations appeared in the Dutch p-set, thus this criteria is worth considering reformulation into something like "continuity of members of the project team".

It is also interesting to recall the different interpretations that managers attributed to shareholders: some saw them as external financiers, some saw in them the public authorities approving the budget, and some other – the actual taxpayers who contribute to the same budget. Stakeholder needs were also commented upon: some saw it as managing a smooth expropriation process, for some - minimising nuisance, and others – including part of their claims in the project scope.

All managers carefully processed the q-sort, and some even tried to synthesize the essence behind the success criteria chose. Some criteria were, according to them, preconditions for the delivery process (fit for purpose, efficient use of resources and impact on the environment – to be defined priory, during EIA, satisfying needs of actors, right process, and safety) – they were often given medium ranks. Other criteria were actual success indicators (quality, satisfies needs of users, on time, within budget) – and got the highest ranks in most cases. Lastly, some criteria expressed side-effects, not success goals in their own (continuation and image of the client organization, learning opportunities, personal growth and development) - and got overall low ranks in determining the success of a project.

6.8 Conclusions – qualitative analysis

The results of the Q-sort yielded 3 distinct perspectives on project success, among the 42 managers included in the final P-set:

Perspective 1 is common to (20) managers who emphasize safety and focus on fulfilling their mission: delivering a quality product, fit for the needs of the users. Indicators of the iron triangle are essential for a successful delivery. They value the relations with the project team and contractors as average, but more than the client organization's goals and image. Growth and development are just a by-product. They keep track of the human factors surrounding a project, without prioritizing them over project goal. P1 managers disregard following the "right" process blindly, and are flexible in their approach. They can maintain the ensemble view, not getting lost in operational details or procedures, and keep to the higher scope.

Perspective 2 is held by (11) managers who are working projects with political influences, or still pending a final decision. This FED phase shapes their view on project success. The focus is less on the future users and qualities of the product, and more on the decision makers upon whom the project still depends, political factors, share- and stakeholders, making the managers process bent. It is possible that these managers were selected precisely because they are empathic and know how to operate in such a complex external environment. Their mission is to prove they can deliver the project on time and budget – explainable performance indicators. Quality, Safety and fit for purpose are less important aspects for political support. Further, although they want good relations with their contractors, but downplay the importance of them making a profit. Personal interests and those of their organization come last in defining project success, in an uncertain project environment.

Perspective 3 is common to (9) managers who are socially involved and try to manage the expectations of external parties in order to achieve project goals. They consider collaboration and communication as the basis towards achieving a successful project. Special efforts are done to achieve efficiency within the delivery team – unlike P1 managers; they see collaboration as conditioned by attention to work processes, people and earning and development chances. Technically, they follow the traditional indicators of time, cost and quality, and are not willing to compromise on safety. The resultant product characteristics a bit ambiguous within the ranking, there is no clear focus on product itself. Managers see things in their external context, and the undertaking is a social service towards their users, not a political mission or an isolated, yet ideal, product.. The image their organization projects tops the criteria related to the internal organization – but ranks after other actor's interests. Politics and shareholders are kept aside the project by keeping to indicators and tending to the human factors.

Perspectives 1 and 3 are highly correlated, and appear often in the execution phase. The differences among seem to stem from the manager's personal framework – either product or process bent. Valuable lessons can be learned by loaders of these two perspectives: P1 managers could take a more people-oriented approach to balance an eventual unstable situation, and strengthen their bonds with the contracting partners, whilst P3 managers could learn from P1 to keep the focus on the final goal, in spite of being dragged along a cumbersome process. Perspective 2 is common among managers involved in projects pending decision, or with higher political influences. Interviewees mentioned that priorities change after the go-decision is taken, thus it is expected that their perspective would shift, according to personal inclination, either towards P1 or towards P3.

Two of the top 3 criteria are common along all perspectives, although they receive slightly different z-scores: being on time and within budget is important across all 3 perspectives. The third criteria that completes the top varies: for P, it's Safety, for P2, Shareholder needs, and for P3, a quality product. The criteria at the bottom of the list vary more – P1 puts the least emphasis on following the right process and political influences ; P2 – On individual benefits for both own team and contractors, and P3 – on politics and shareholders.

Four success criteria do not distinguish any pair of perspectives: the respondents agree on similar rankings for them. Three of these relate to client team and organization's interest and to sustainability, and are considered as neutral in success achievement. The fourth is mentioned among the iron triangle components – everyone agrees that keeping within budget is crucial. The remaining criteria, related mostly to external environment, execution process and resultant product, are the ones that truly bring out differences between perspectives.

The public sector managers give high importance to indicators forming the iron triangle, and keeping to them is determining for project success – but for P2, they always rank among the most important 4 criteria. There is agreement among all perspectives, that a project delivered within budget is a success. Criteria like on time and quality are highly appreciated by P1 and P2 managers. Their colleagues loading on Perspective 2 have skewed views on these items: proving that you can deliver on time is valued more than proving you can deliver quality in undecided or challenged projects.

Managers appreciated as consistent the list of success criteria derived in the previous research by van Loenhout, with slight comments on the first criteria related to continuation of the client organization. Some of the managers even made the effort to synthesize the essence behind them, separating them in criteria stating preconditions for a successful delivery, ranking neutral, and side-effects of the process, ranked at the low end, and actual success indicators that top most Q-sorts.

The perspectives represent current views on current projects, and can evolve with time and phase.. However, given the detail depth during interviews, they can bring insights that are more relevant than a general population view. On a shorter time-span, however, consultants and contractors interested in getting involved in projects in North-Western Europe can expect to come across managers on the client's side, who is approach to success is similar to the views presented in this chapter: managers focusing on product, on process or on pursuing decision maker's support. Project phase is supposed to have an effect on the approach taken, but between P1 and P3, the inner nature of the manager itself will play a bigger role.

The methodology to assess project success could be used as a communication tool, in order to enhance understanding between contracting parties – especially in an international context. Administrating the Q-sort to both public and private leading partners during a workshop at the beginning of each relevant phase of the project, would help increase awareness of each other's intentions, and better understand the goals and external nature of the project. It would be particularly interesting to discuss on the distinguishing criteria (that managers disagree upon), and try to come to common grounds and win-win situations.

7

Cultural aspects integration into interpretation

This chapter seeks to answer the research sub-question “ *What is the cultural positioning of managers, and can it be linked with the dis/similarities between perspectives and preference for criteria?*”. Cultural differences and eventual bias on success assessment will be examined on a country level in paragraph 7.1, and on the level of devised perspectives in paragraph 7.2.

7.1 Differences between countries, based on cultural questions

Given the international character of the research, insight related to cultural aspects was added to our core theme - project success. The qualitative interpretation of the data is thus enhanced by including embedded cultural bias. During the interviews, the respondents had to complete two sets of questions, derived, as shown in paragraph 3.4, from particular cultural dimension of Hofstede’s. These four cultural dimensions are: Power distance (PD+ high), Uncertainty avoidance (UAI+ high), Masculinity or Femininity (MAS+ high) and Long term orientation (LTO+ high).

For the first cultural assessment (Set 1, see paragraph 3.4.3.), the managers were asked to select 8 aspects, out of a list of 16, which they find important in a job. Answers showed what inter-country differences in the assessment of these dimensions occurred, as to be expected from Hofstede’s theory and country scores. These aspects were linked to certain success criteria, and in paragraph 7.1.3 it will be shown if country preferences determined a specific rankings of criteria.

The second assessment (set 2, see paragraph 3.4.2) tested the agreement on statements on job aspects, also related to project success on a 1 to 4 Likert scale. Based on the respondent’s answers, in paragraph 7.1.4 it will be discussed if and how the ranking of the criteria seem to be influenced by the socio-cultural environment of the respondent.

7.1.1 Culture set 1 versus expectations based on Hofstede’s theory

Set 1 was first used to see if the individual responses match with the country orientations/ scores that Hofstede mentioned. Table 15 shows the number of times each item was selected, by respondents coming from the same country, and the expected orientation for that dimension, according to Hofstede. The dark brown cells represent discrepancies between the expectations and the actual answers, and light brown cells show smaller differences from expected orientation.

The most unexpected scores across all countries appeared on the Masculinity dimension. But for Belgium and UK, all countries were expected to show Feminine traits (MAS-). Instead, managers from countries that were considered feminine (DK, FI, SWE) showed higher preference for items indicating masculinity (challenge, achievements), whilst countries expected to be masculine showed also preference for items indicating femininity (useful job, pleasant work atmosphere).

All countries except Belgium were expected to have low Uncertainty avoidance, and medium Long term orientation, but some of the scores did not confirm these inclinations. Sweden and Finland selected in higher numbers than expected, longer term orientation aspects. Belgium, Denmark and

UK respondents appeared to be less uncertainty avoidant (job security, procedures and rules) than it was expected.

Power distance results fit best to the expectations – all countries were to go for low power distance, but for Belgium. Respondents selected in large numbers items on low power distance – but Belgians did so as well. Instead, Finns selected those aspects in less a number.

Country-wise, **Belgium** showed the most unexpected preferences. Managers were expected to manifest medium power distance and high uncertainty avoidance, but that was not the case. Instead, they selected items. They selected both masculine and feminine aspects as important.

Denmark was expected to have a shorter term expectation. Contrary to expectations, many interviewed managers selected instead 3 items with higher long term orientation. Also, there was more inclination towards selecting uncertainty avoidance items than it was expected.

Finland showed more preference than expected for a long term orientation, and middle range score - instead of expected low - on masculinity. They showed inclination towards power distance, as more than the half of the respondents did not select the aspect of having a say in important decisions.

Sweden conformed better to expectations, the only exception being the tendency to higher uncertainty avoidance, manifested by appreciation for clear procedures and rules at work (41) - whilst according to Hofstede, Swedes generally show low uncertainty avoidance.

UK showed a higher Uncertainty avoidance than expected. Furthermore, UK manifests a higher inclination than expected for Femininity- related aspects. UK managers expressed the need to be more people/consensus oriented (more “feminine”) than the average British person, during the interviews. That way the external parties interfering with their projects are easier to handle.

	selected _ times	0	2	5	8	10	13	17	20	23	29	31	31	32	32	33	34
	% who selected it	0	5	13	20	25	33	43	50	58	73	78	78	80	80	83	85
	Job aspect (gray = opposite views)																
	Respect for status																
	More supervisory personnel																
	Tolerance for ambiguity and chaos																
	Job security, Steadiness and stability																
	Clear procedures and rules																
	Reward by abilities																
	Network that varies with business needs																
	Appreciation for generalists and common sense in decision making																
	A responsible job, where perseverance is valued																
	Learning new skills, adaptive																
	A useful job for society and environment																
	A job in which you can achieve something																
	Challenge and recognition																
	Having a say in important decisions																
	Opportunity to use initiative																
	Pleasant, cooperative atmosphere among co-workers																
	aspect no.	38	42	37	33	41	43	39	45	35	47	40	44	36	34	46	32
of _ respondents	dimension >	PD +	PD +	UAI -	UAI +	UAI +	LTO -	LTO -	UAI -	LTO +	LTO +	MAS -	MAS +	MAS +	PD -	PD -	MAS -
of 5 BE resp	Belgium	0	0	1	0	0	1	2	2	4	4	4	5	4	4	4	5
	expected	med	med	low	high	high	low	low	low	high	high	med	med	med	med	med	med
of 9 DK resp	Denmark	0	1	1	2	1	1	2	5	4	9	9	5	7	9	7	9
	expected	low	low	med/h	low	low	med/h	med/h	high	low/m	low/m	high	low	low	high	high	high
of 10 FI resp	Finland	0	0	2	3	3	4	4	5	8	6	5	6	7	4	7	8
	expected	low	low	med/h	med	med	med/h	med/h	med	low/m	low/m	high	low	low	high	high	high
of 10 SE resp	Sweden	0	1	1	1	6	3	7	6	4	6	8	8	7	8	8	6
	expected	low	low	med	low/m	low/m	med	med	med/h	med	med	high	low	low	med/h	med/h	high
of 7 UK resp	UK no.	0	0	0	2	0	4	2	2	3	4	5	7	7	7	7	6
	expected	low	low	med	low/m	low/m	med	med	med/h	med	med	low/m	med/h	med/h	high	high	low/m
	not expected																
	almost																
	as expected																

Table 15 - Preference recordings of aspects/dimension, per each country

7.1.2 Frequency analysis of selected statements

Looking at the raw data, it became clear that managers, irrespective of their countries of origin, showed a high inclination in selecting certain job aspects, whilst other aspects, but for exceptions, were avoided. Therefore, to see which job aspects are selected overall by project managers, the data from question set 1 was arranged according to the frequency of selection of each job aspect. (see Appendix G') This gives a better view on what managers consider important, and what not.

From this analysis it can be noticed that aspects that relate to high power distance (*respect for status and more supervisory personnel*) were, but for two cases, never selected. Meanwhile, those that relate to low power distance (having a say in important decisions; opportunity to use initiative) almost top the list, were chosen in 80 - 83% of the cases. This does not only confirm the low-power distance orientation of the countries, but also managerial characteristics as the inclination to exert authority and make decisions.

Respondents selected in high percentages, aspects that relate to both high and low Masculinity (MAS + and -), making it impossible to recognize Hofstede's categorizations of countries along the masculinity spectrum. People valued the highest (85%) a *pleasant, cooperative atmosphere among co-workers* (MAS-). *Challenge and recognition* (MAS+), *a job in which you can achieve something* (MAS+) and *a useful job for society and environment* (MAS-) are also in the top of the preferences, chosen by around 80% of the respondents. This means that items chosen to represent different poles of the dimension were all considered important at a personal level, and were not perceived as excluding each other by the interviewed managers, as deduced during the interviews. It was made clear that, even if coming from a Feminine country, a manager will have some masculine traits, as seeking challenge and achievements.

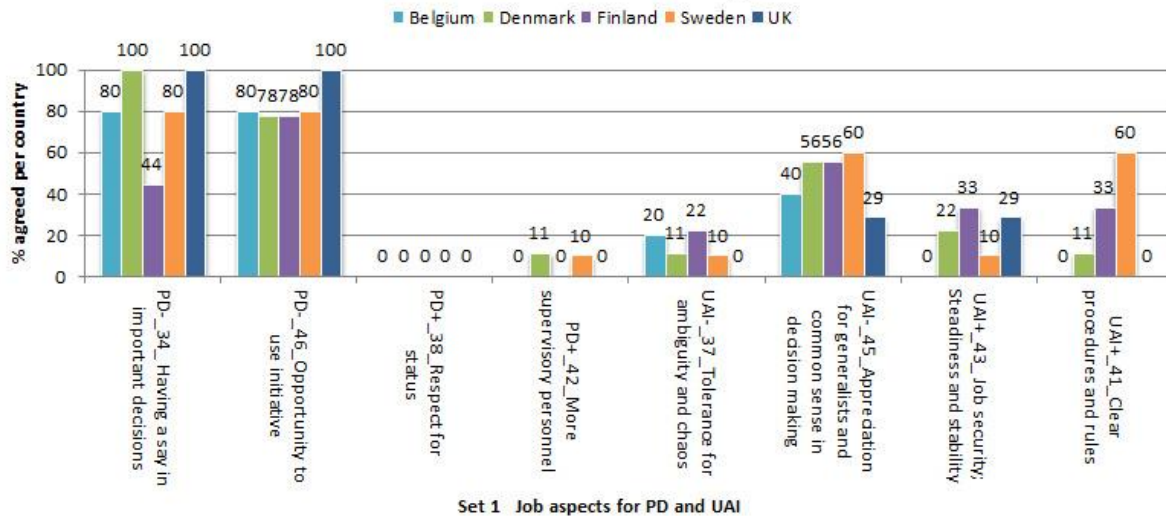
Long term orientation items (Learning new skills, perseverance and responsibility) were selected by around half of the respondents. Uncertainty avoidance items (job security, clear procedures and rules) were not chosen as relevant for a job by a large amount of managers.

7.1.3 Question set 1 – differences between countries

After this discussion on overall preferences, it is time to go into more detail, by looking at the scores of each country for each of the job aspects. In the following paragraphs, country results that stand out, for each dimension and aspect will be discussed, in parallel with the ranking of particular success criteria initially considered to be related to each aspect. If there is indeed a difference in the ranking of those criteria for the particular country with extreme results, we can indicate that the cultural aspect has influence on those success criteria.

Figure 16 shows the percentage of respondents that have selected the aspect as relevant, within each participant country, for each of the 16 job aspects included in question set 1. In paragraph 3.4.3, the full list of job aspects, along with the success criteria that are supposed to be influenced by each aspect, were introduced. The preference for job aspects appears to go in the same direction of the cultural dimensions (low Power distance, medium Uncertainty avoidance, medium Long term orientation, and influence of both Masculinity and Femininity). However, there are countries that score on some aspects in a more extreme way on some of these dimensions, as show hereafter.

Power distance and Uncertainty avoidance



Masculinity and Long term orientation

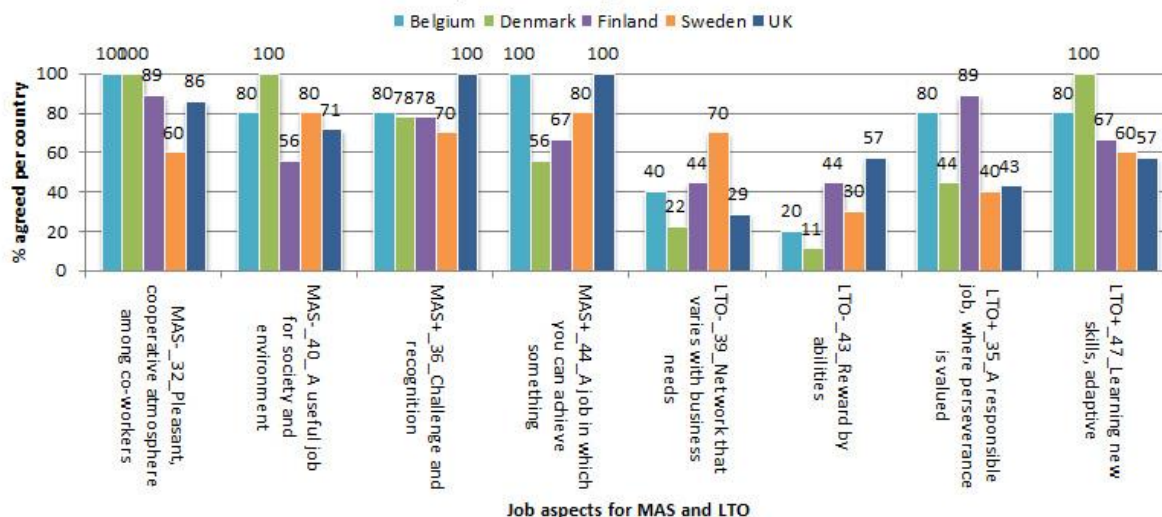


Figure 16 - Culture set 1, selection of job aspects per country

Power distance job aspects:

Aspect 34_ *having a say in important decisions* (PD-) was selected by just 44% of the Finns. The related success criterion, 11_ *political and social factors*, receives lower ranks from Finns than from other respondents. During the interviews, it was mentioned that the decision was made before the project was assigned – enforcing the lack of interest in important decisions, since the decision was taken without the manager's input.

Aspect 46_ *opportunity to use initiative* (PD-) was chosen by all Brits. They do not score the related success criteria, 11_ *political and social factors*, as low as Finns and Danes, but still gets a low to medium rank. Politics are not left out of the process, but they are not given priority either, and managers appeared to have freedom to take initiative alongside political leading.

Uncertainty avoidance job aspects:

Aspect 41 *clear procedures and rules (LTO+)* was selected by 60% of the Swedes – the highest percentage across all countries. Indeed, the score on related success criteria like 14_safety, and 13_the right process, is slightly higher than in other countries. They appeared keen on taking the right approach and doing things “by the book”, so as to avoid collateral issues.

Aspect 45 *appreciation for generalists and common sense in decision making (UAI-)* was chosen by just 29% of the Brits. It does not influence the ranking on any success criteria; it is just the general distrust that managers in UK showed towards the common sense of people.

Masculinity/ Femininity job aspects:

Aspect 32 *pleasant, cooperative atmosphere among co-workers (MAS-)* was selected by just 60% of the Swedes – a lower preference, when compared to the others. Their rankings on criteria 15_project team, and 6_relations with contractors, are common among countries, thus the link between the aspect and success criteria is not enforced.

Aspect 40 *an useful job for society and the environment (MAS-)* was selected by just 56% of the Finns. When looking at related success criteria, 7_impact on the environment, and 18_user needs, we see similar rankings to other countries. However, criterion 17_stakeholder needs, receives a lower ranking, supported by this low preference – some Finn managers appeared during interviews to be less interested on the effects of their assignment on society at large.

Aspect 36 *challenge and recognition (MAS+)* was selected by all Brits. Scores on related success criterion 9_personal growth and development are slightly higher, but similar to those of Finns and Danes, who do not appear in the theory as challenge seekers. Preference for this job aspect confirms the masculine, go-getter spirit that Hofstede endorses in his theory, with regard to UK and US.

Aspect 44 *a job in which you can achieve something (MAS+)* was chosen by all Brits and Belgians. Achievement was initially associated with success criteria 5_fit for purpose, and 12_quality; however, **Belgian** managers did give different ranks to these criteria than in other countries. Criterion 11_political or social factors, got higher appreciation (array 1) – in the Belgian project’s case, the achievement was to pull the project through the decision making process and have it approved, so as to forward to delivery. **British** scores on related success criteria like 12_quality, and 18_user needs, are relatively high compared to others (but for Finns for C12) – thus it can be supposed that achievement in British terms relates to delivering a good quality product to the future users.

The same achievement aspect was selected by just half of the Danes, a low preference when compared to the other countries. Looking into the ranking of the success criteria related, criteria 5_fit for purpose gets similar ranking as from other countries’ representatives. However, 12_quality is ranked lower, supporting their lack of achievement-orientation: getting sufficient, not outstanding, quality was mentioned during the interviews with Danish managers.

Long term orientation job aspects:

Aspect 39 *network that varies with business needs (LTO-)* was selected by 70% of the Swedes. No other country showed such high interest in this aspect. The ranking the Swedes gave to related success criteria like 17_stakeholders, or 15_project team, is common; however, their scores on

criteria 16_shareholder and 11_political and social factors, was higher than in other countries. This shows they have keen interest in the business partners their current project depends upon.

Aspect 43_ *job security* (UAI+) was not selected by any Belgian. Likewise, they ranked the associated success criteria, C1_continuity of the client organization, very low – but the same did Danish and UK respondents. In Belgium's case, the lack of interest for C1 came from the fact that the organization itself was project-dependent - without project there was no job, as mentioned in interviews.

Aspect 35_ *a responsible job, where perseverance is valued* (LTO+) was selected by 80% of the Belgian managers. These job aspects were initially associated with success criteria 2_on time, and 4_efficient use of resources. The rankings Finns gave to these two criteria were not very different in other countries, thus we cannot say that this cultural difference induced particular rankings. The perseverance in Belgium's case meant, as seen in the interviews, pursuing the intermediate project scope (approval), in spite of delays and political instability.

Aspect 35_ *a responsible job, where perseverance is valued* (LTO+) was selected by 80% of the Finns. Related success criteria were considered to be 2_on time, and 4_efficient use of resources. Criteria 4 scored consistently higher than for others, in the neutral area, whilst being on time was seen as less crucial than in other countries, and behind safety, quality and user satisfaction. Finns manifest responsibility by handling with care resources, and providing an efficient end product to users.

Aspect 47_ *learning new skill, adaptable* (LTO+) was selected by all of the Danes. This supports the higher ranking that they give to criteria 8_learning opportunities for client organization, and 9_personal growth and development. Indeed, they appear oriented to create and maintain knowledge on the long run, in their organizations.

Country wise results:

Most Belgian managers chose for perseverance and a responsible job, in which one can achieve things and none of them - for clear procedures and rules, and job security.

All Danish managers chose for a job where one can learn new skills and be adaptable. When it comes to achievement, it was selected by only half of the Danish respondents, less than all other different nationalities.

Finnish managers chose in high numbers for perseverance and a responsible job, and much less than other countries, for having say in decisions and conducting a job useful for society and environment.

Swedish managers chose more than others, to have a job with clear procedures and rules, and a variable business network. On the other side, not as many Swedes, as compared to all other nationalities, chose for a pleasant, cooperative atmosphere among co-workers – business is business.

All British managers selected for challenge and recognition, achievement and opportunity to use initiative, as favourite job aspects. The aspect that got less chosen than in other countries was the appreciation for generalists and common sense in decision making.

7.1.4 Question set 2 – differences between countries

The second set of cultural questions was intended to give more insight on how culture might have influenced particular issues within the project's context. To complete set 2 of cultural questions, respondents were asked to express their agreement level on a 1 to 4 Likert scale, to 12 statements - 3 corresponding to four of Hofstede's cultural dimensions (PD, UAI, MAS, LTO). Figure 17 shows Hofstede's scores for the 5 target countries, and the results per country, of this second cultural test (average of responses for 3 questions, for each dimension).

Looking at Hofstede's country scores, one can expect to see differences on our four cultural dimensions, amongst the respondents from different target countries: Low Power distance was expected in all countries but for Belgium. Uncertainty avoidance was to be high in Belgium, medium in Finland and lower for the rest. Belgium and UK were seen as more Masculine-oriented countries, and the rest – Feminine, consensus-bent. Countries showed medium Long term orientation, with the exception of Belgium, who scores higher. Belgians score higher on Power Distance, Uncertainty Avoidance and Masculinity, British score higher on Masculinity, Danish particularly low on Power Distance and Uncertainty avoidance, and Swedes particularly low on Masculinity.

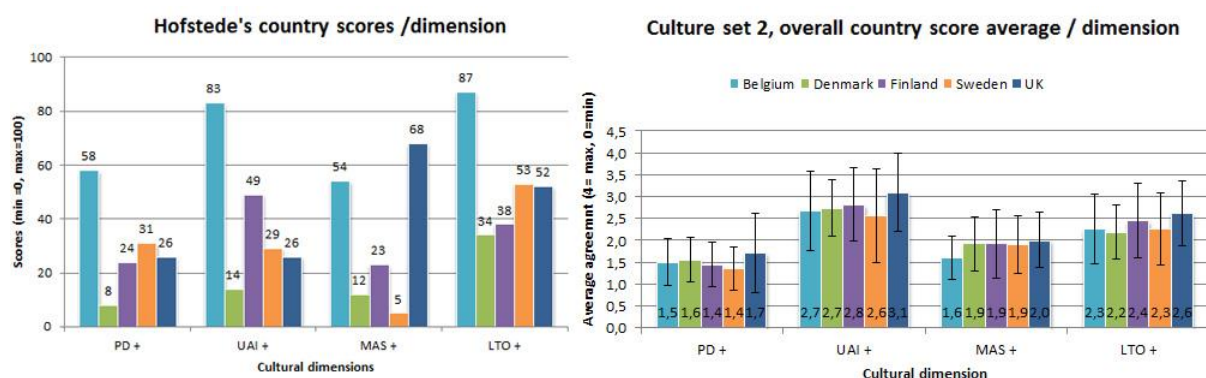


Figure 17 - Hofstede's scores on cultural dimensions (source Hofstede 2009) vs. averages for set 2

The results to the questionnaire items show that the differences between countries are not as large as those expected. Differences per cultural dimension (average of 3 questions) are actually smaller than the standard deviation within a particular country set. In brief, the interviewed infrastructure project managers do tend to think among the same lines in North-Western Europe. Managers from all countries show low Power Distance (average of 1,5 on a scale of 4), medium to high Uncertainty avoidance (2,75 out of 4), low to medium Masculinity (1.9 out of 4) and medium Long Term Orientation (2,45 out of 4).

Average agreement levels per dimension were similar between countries, but the three statements used for each dimension are not always comparable, and some - even circumstantial. To have a clearer picture, insight is given at an item level – thus for each of the 12 statements managers had to express their agreement upon. Here, slight differences between groups of managers from different countries do appear, as it will be shown in the next paragraphs:

Power distance statements: Although opinions were spread in all countries, Belgian managers were the only ones among the lot who perceived in a higher percentage their organizations as decentralized, horizontal (Q20). On the opposite side, more Danish and British managers saw their parent organizations as centralized. Managers from all countries strongly agreed that a managers

should be able to delegate and trust their team's ability to deliver (Q21). 90% of the Swedes agreed strongly on delegating, whilst one Brit manifested distrust and will to control. The same was true about expressing disagreement to superiors – all but one (ex-Army) Brit manager agreed that it was only normal, or to be expected, to do so.

Uncertainty avoidance statements: But for punctual exceptions, most managers expressed their wish to continue working with the current organization (Q23). A larger percentage of Brits disagreed, seeing their contract project-related. The level of scope disagreement turned out to be circumstantial, and not exponential for the country, and opinions were split. A higher number of Swedes disagreed to define scope in detail as a client, whilst most Belgians and Danish agreed with the idea. When it came to process rules (Q25), more than half of managers from most countries opted for less rules and trust in common sense. A strong cultural difference appeared in the British case – many managers expressing their distrust in what people consider common sense to be, and bending the balance on the other side.

PD 20. I am working in a centralized organization, with several supervision levels	Q20	BE	DK	FI	SE	UK	Q26 -	BE	DK	FI	SE	UK	MAS 26(-). Last time facing a decision, I DECIDED ALONE rather than strive for consensus.
	avr >	1,6	3,0	2,6	2,2	2,9	avr >	1,6	1,7	1,4	2,0	2,3	
	1 str diss	60	0	11	20	0	1 str diss	40	56	56	10	0	
	2 diss	40	11	33	40	29	2 diss	60	22	44	80	71	
	3 agr	20	78	44	40	57	3 agr	0	22	0	10	29	
PD 21(-). When delegating a task to the team, a good manager NEEDS TO supervise all details.	4 str agr	0	11	11	0	14	4 str agr	0	0	0	0	0	MAS 27. In my project, the appreciation of excellence is individual rather than on team.
	Q21 -	BE	DK	FI	SE	UK	Q27	BE	DK	FI	SE	UK	
	avr >	1,4	1,4	1,2	1,1	1,7	avr >	1,4	1,9	2,1	1,7	1,6	
	1 str diss	60	56	78	90	57	1 str diss	60	11	11	40	43	
	2 diss	40	44	22	10	29	2 diss	40	89	67	50	57	
PD 22(-). Last time I disagreed with the management above, I DID NOT expressed it OR presented the issues.	3 agr	0	0	0	0	0	3 agr	0	0	22	10	0	MAS 28. I chose to be decisive in case of a conflict, rather than negotiate.
	4 str agr	0	0	0	0	14	4 str agr	0	0	0	0	0	
	Q22 -	BE	DK	FI	SE	UK	Q28	BE	DK	FI	SE	UK	
	avr >	1,6	1,7	1,7	1,6	1,7	avr >	1,8	2,2	2,2	2,0	2,1	
	1 str diss	40	33	33	40	43	1 str diss	20	0	22	30	14	
UAI 23. After this project, I wish to continue my career within this organization.	2 diss	60	67	67	60	43	2 diss	80	78	44	40	57	LTO 29(-). I AM feeling ashamed for not performing, RATHER THAN worry about our image as professionals.
	3 agr	0	0	0	0	14	3 agr	0	22	22	30	29	
	4 str agr	0	0	0	0	0	4 str agr	0	0	11	0	0	
	Q23	BE	DK	FI	SE	UK	Q29 -	BE	DK	FI	SE	UK	
	avr >	2,8	3,0	3,6	3,6	3,4	avr >	2,2	2,0	2,6	2,0	2,7	
UAI 24. A great level of scope definition should be used before tendering.	1 str diss	20	0	0	0	14	1 str diss	20	11	11	40	0	LTO 30. To adapt to future needs and circumstances, we have embedded flexibility in the scope.
	2 diss	0	22	0	0	29	2 diss	60	78	33	20	29	
	3 agr	60	56	44	40	57	3 agr	0	11	56	40	71	
	4 str agr	20	22	56	60	0	4 str agr	20	0	11	0	0	
	Q24	BE	DK	FI	SE	UK	Q30	BE	DK	FI	SE	UK	
UAI 25 (-). Rules ARE necessary, EVEN IF IT can be dealt with by common sense.	avr >	3,0	2,8	2,4	2,2	3,0	avr >	2,8	2,7	3,0	2,8	3,1	LTO 31(-). For project goals I am NOT prepared to jeopardize my relationship with the contractors.
	1 str diss	0	0	0	20	43	1 str diss	0	0	0	0	0	
	2 diss	20	33	56	50	14	2 diss	20	33	11	40	0	
	3 agr	60	56	44	20	43	3 agr	80	67	78	40	86	
	4 str agr	20	11	0	10	0	4 str agr	0	0	11	20	14	
	Q25 -	BE	DK	FI	SE	UK	Q31 -	BE	DK	FI	SE	UK	
	avr >	2,2	2,4	2,4	1,9	2,9	avr >	1,8	1,9	1,8	2,0	2,0	
	1 str diss	20	0	11	40	14	1 str diss	20	22	33	10	29	
	2 diss	40	56	44	30	0	2 diss	80	67	56	80	43	
	3 agr	40	44	33	30	71	3 agr	0	11	11	10	29	
	4 str agr	0	0	11	0	14	4 str agr	0	0	0	0	0	

Figure 18 - Culture set 2, percentage agreement to statements per country

Masculinity statements: All managers (But for 5 exceptions, from which 3 Brits) declared they would try to reach consensus rather than decide alone on issues (Q26). Team rather than individual

achievements (Q27) were valued in all but for 3 cases. These two questions yielded a feminine inclination on this dimension. When it came to taking attitude during conflicts (Q28), 25% of managers from all countries (excepting Belgium) showed they were ready to show decisiveness – thus more masculine.

Long term orientation statements: 80-90% of the managers from each country (but for Swedes, only 60%), agreed to have defined scope so as to be able to deal with necessary future adaptations (Q30). This was the only question from the lot of 3, to yield positive ratings for long term orientation. Worrying about the impact on public image of underperformance (Q29) was a constant among all countries, although Belgians and Danes inclined stronger towards it. For the rest of the countries, more than half of respondents agreed they would process failure internally instead. Around 90% of managers from 4 countries agreed to be up for a conflict with managers if they saw their project goal neglected (Q31). 30% of the UK managers thought otherwise, valuing longer term business relations. Overall, this care for image and propensity to argue with contractors inclines the balance towards a shorter term orientation – typical for these Western Countries.

Extreme characteristics for representatives from each country:

Belgian managers agreed to have a more decentralized organization, on not necessarily wanting to continue with the current job, and with appreciating common sense, rather than rules.

Danish managers perceived their organizations as more centralized, and worry more about their organization's image.

Finn managers appreciate individuals alongside team efforts, and process failure internally rather than worrying about their public image.

Swedish managers are keen on entrusting tasks to team members, value more trust in common sense over rules and less flexibility for future needs in scope definition.

British managers also perceive their organizations as centralized, are more prone to switch jobs, prefer in higher numbers less scope definition prior to tenders, distrust common sense and appear less inclined to fight with contractors.

7.2 Differences among perspectives, based on cultural dimensions

In the previous paragraphs it was shown that the way individuals answered the cultural questions was not necessarily in conformity with Hofstede's country-wise scores and predictions. There are looser lies between what societies find normal, and what individuals' experience. Also, there were a number of job aspects that were selected by almost all managers, irrelevant of the country, whilst others were barely chosen. This shows that there are cultural peculiarities in the aspects mentioned, which are not nation-wise, but specific to managers. Peterson's 2007 paper (The Heritage of Cross Cultural Management) mentions that research based on Hofstede's theory could be used to clarify also individual or smaller group links to social culture, not just the culture of the society as a whole. Based on these notions, it would be helpful to position current findings on cultural aspects in the context of our perspectives on project success.

Since in chapter 6 we devised three different managerial views on project success, it will subsequently be shown if there are cultural aspects that managers loading on different perspectives appreciate differently, and if there is some cultural bias that influences managers on their Q-sort rankings. These cultural differences identified between loaders help add more definition to the characteristics of each perspective.

The following paragraphs will try to give an idea on the different views on cultural items discussed, identified between groups of respondents loading on different perspectives. The idea is not to extrapolate the findings, but to give an overall cultural positioning of the loaders.

7.2.1 Overview cultural questions set 1 – cultural influence on perspectives

This subchapter will give an overview of the way the selections on set 1 of cultural questions vary between perspectives (see Figure 19), and based on this the perspective description will be embedded in a cultural overlay. The detailed discussion is included in appendix x, and the following paragraphs contain the main ideas derived from this analysis.

Perspective 1 respondents:

- Manifested inclination for aspects related to low power distance (PD-). Over 90% of P1 managers appreciated having a say in decision making and taking initiative: they are people who take a pro-active stance towards achieving the desired goals. They are entrusted an assignment that is already decided upon, and their job is to bring it in to being. They are strong leaders, and try to keep external influencers (including politics) out of the delivery process, thus taking initiative is not seen as a threat towards other interested parties, as in P3.
- Showed little interest for items related to uncertainty avoidance (UAI+), like clear procedures and job security. This enforces their low ranking of C13 - right process – reaching goals is more important than following guidelines. They still need a clear goal to work towards, and in that process, tolerance for chaos is low: are keen on keeping indicators in place and ensuring safety.
- Did not show outstanding preferences with regard to Masculinity items. They selected both feminine (pleasant atmosphere, useful job) and masculine (challenge, achievement orientation) job aspects in a high percentage – but average along the 3 perspectives.
- Had an average position on Long term orientation aspects too, inclining towards a medium-high level. However, a lower than average number selected the aspect of learning new skills and being

adaptive – goal oriented managers are likely more certain of their technical and analytical abilities, and a proper application of these guarantees success in their view.

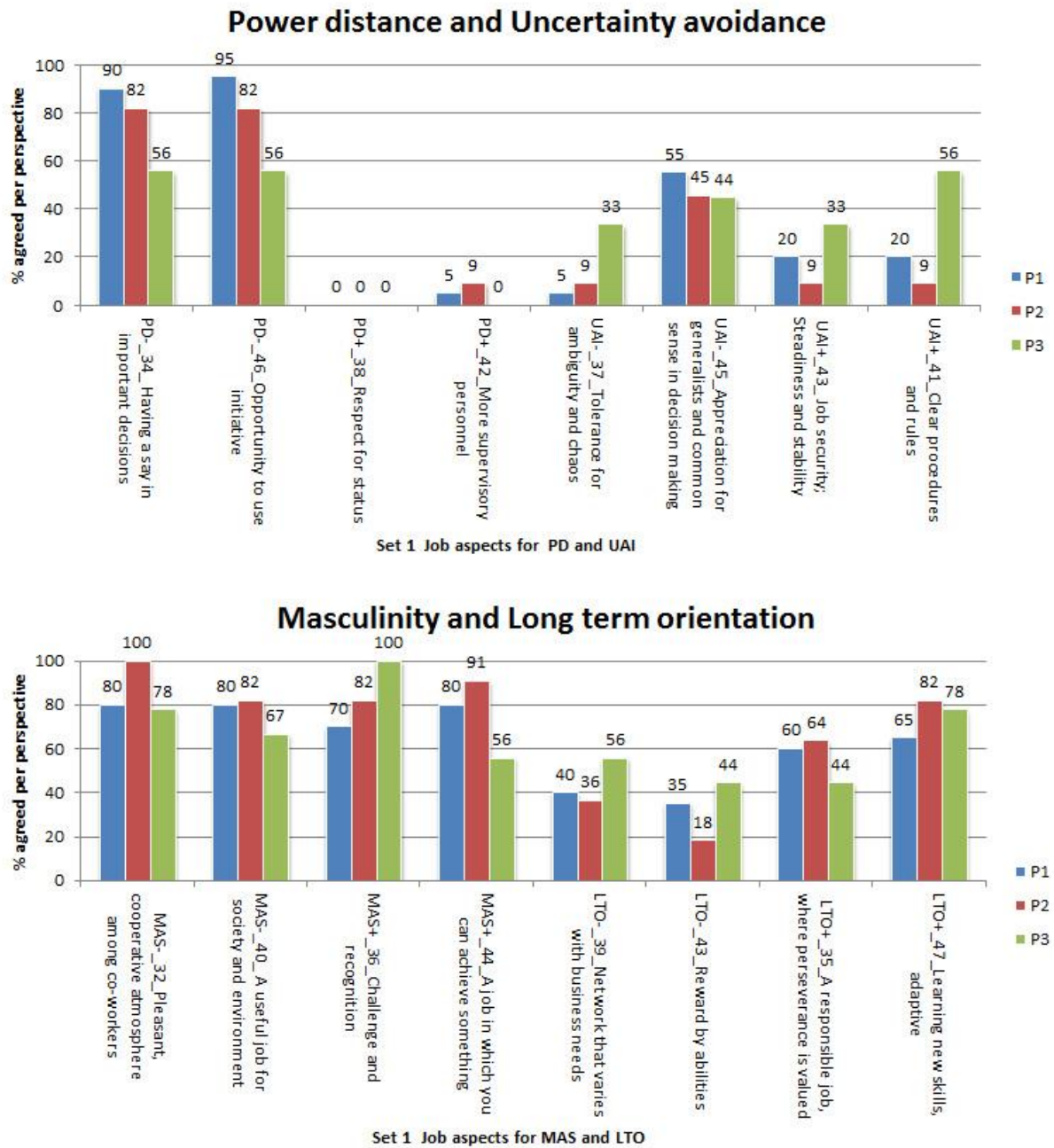


Figure 19 - Culture set 1, selection of job aspects related to 4 cultural dimensions, per perspective

Perspective 2 respondents:

- Showed, along with P1, appreciation for low power distance aspects that relate to decision-making and initiative. These characteristics are intrinsic to project managers; and certainly they are desirable for a person in charge of a politically challenged project – the job chose them.
- Gave a more extreme rating to both masculine and feminine job aspects than respondents from the other perspectives, since relations with human factors are more important in their context.
- Femininity aspects: Performing a useful job for society and the environment was highly appreciated, since they must prove their project's utility to gain support from both stakeholders and decision makers. Therefore, they score high on criteria related to external actors. Unlike P3, this interest is at more at a political level. Internally, for an undecided project, the need of a coherent project team, is even stronger, in order to get unconditional collaboration. All 11 P2 managers confirmed preference for a pleasant, cooperative atmosphere at work.
- Masculinity aspects: like P1 managers, they are challenge-seekers and achievement-oriented – masculine characteristics essential for the leader of a complex project.
- Inclined (along with P3) towards a Long term orientation, by valuing a responsible job, adaptability and learning. These are keys to advance a complex project in spite of the tedious decision making process. Along with P1, P3 managers valued perseverance instead of reward by abilities – thus long term endurance over incentives for focus on bottom line.

Perspective 3 respondents:

- Appear to perceive power distance as larger than their colleagues on P1 and P2. Decision making and taking the initiative are not seen as the key incentives in a job. **Showing a strong stance and pushing their opinion might lead to displeased stakeholders and less support, which is why they adopt a collaborative, not dominant, approach, even if they are in charge of the project.**
- Show confounding views on uncertainty avoidance items: on one side, they show more tolerance to ambiguity (UAI-) than respondents from other perspectives. Process-oriented managers develop flexibility due to the social context. On the other side, a higher share of P3 seeks job security, and clear procedures and rules, showing high UAI. This confirms their preference for C13 – following the right process. **We can say that, among all 3 perspectives, P3 manifests higher uncertainty avoidance: they know that actors can behave strategically, and they make conscious efforts to flexibly keep track of the process. Playing by the “right” rules can prove itself useful in this context.**
- Value a pleasant work atmosphere and a job in the service of society, as all others. For the other MAS items, their view is split: all of them are seeking challenge and recognition from the people involved in the process, but only half are achievement oriented. **Our P3 managers are thus more feminine (MAS-) than their P1 and P3 counterparts – it's not all about the goal, but how you get there, and how to gain the support of your team. This shows in their predilection for success criteria related to external actors and contractors - the human factors are their major challenge.**
- Appreciate their business network as essential, but also circumstantial. They focus on the bottom line and offer rewards according to people's result. Also, they show less inclination towards a job that implies responsibility and perseverance – the combination of these aspects shows they have lower LTO than P1 and P2 managers, focusing towards punctual developments along the process.

7.2.2 Overview cultural questions set 2 – cultural influence on perspectives

This subchapter will give an overview of how agreement level on set 2 statements varies between perspectives (Figure 20). Based on this, it will be shown how the positioning on the cultural dimensions could have influenced the preference for certain success criteria of different perspectives. Furthermore, each perspective description will be embedded in a cultural overlay.

The attached figure show the average response per item for each perspective, and the percentages of responses on the 1-4 scale, where 1 is negative pole of perspective (strongly disagree with the statement) and 4 positive pole of perspective (strongly agree with the statement). Some of the questions (21, 22, 25, 26, 29, and 31) have to be turned in their negative equivalent for this purpose. Although the number of loaders per perspective is small, but orientations of perspectives can still be noticed. The detailed discussion on each of the statements of set 2 is included in appendix x.

PD 20. I am working in a centralized organization, with several supervision levels	Q20	P1	P2	P3		Q26 -	P1	P2	P3	MAS 26(-). Last time facing a decision, I DECIDED ALONE rather than strive for consensus.
	avr >	2,7	2,2	2,4		avr >	2	1,7	1,6	
	1 str diss	10	36	0		1 str diss	25	36	44	
	2 diss	25	9	56		2 diss	55	55	56	
	3 agr	50	55	44		3 agr	20	9	0	
PD 21(-).When delegating a task to the team, a good manager NEEDS TO supervise all details.	4 str agr	15	0	0		4 str agr	0	0	0	MAS 27. In my project, the appreciation of excellence is individual rather than on team.
	Q21 -	P1	P2	P3		Q27	P1	P2	P3	
	avr >	1,3	1,4	1,4		avr >	1,8	1,5	2,0	
	1 str diss	80	64	56		1 str diss	20	45	33	
	2 diss	15	36	44		2 diss	80	55	33	
PD 22(-). Last time I disagreed with the management above, I DID NOT expressed it OR presented the issues.	3 agr	0	0	0		3 agr	0	0	33	
	4 str agr	5	0	0		4 str agr	0	0	0	
	Q22 -	P1	P2	P3		Q28	P1	P2	P3	MAS 28. I chose to be decisive in case of a conflict, rather than negotiate.
	avr >	1,7	1,7	1,4		avr >	2,0	2,1	2,3	
	1 str diss	35	27	56		1 str diss	20	9	22	
UAI 23. After this project, I wish to continue my career within this organization.	2 diss	60	73	44		2 diss	60	73	33	
	3 agr	5	0	0		3 agr	20	18	33	
	4 str agr	0	0	0		4 str agr	0	0	11	
	Q23	P1	P2	P3		Q29 -	P1	P2	P3	LTO 29(-). I AM feeling ashamed for not performing, RATHER THAN worry about our image as professionals.
	avr >	3,5	3,1	3,3		avr >	2,4	2,2	2,1	
UAI 24. A great level of scope definition should be used before tendering.	1 str diss	0	9	0		1 str diss	15	9	33	
	2 diss	5	9	11		2 diss	35	73	22	
	3 agr	45	45	44		3 agr	45	9	44	
	4 str agr	50	36	44		4 str agr	5	9	0	
	Q24	P1	P2	P3		Q30	P1	P2	P3	LTO 30. To adapt to future needs and circumstances, we have embedded flexibility in the scope.
UAI 25 (-). Rules ARE necessary, EVEN IF IT can be dealt with by common sense.	avr >	2,8	2,4	2,6		avr >	3,0	2,9	2,7	
	1 str diss	0	9	11		1 str diss	0	0	0	
	2 diss	40	45	44		2 diss	20	18	33	
	3 agr	40	45	22		3 agr	65	73	67	
	4 str agr	20	0	22		4 str agr	15	9	0	
	Q25 -	P1	P2	P3		Q31 -	P1	P2	P3	LTO 31(-) . For project goals I am NOT prepared to jeopardize my relationship with the contractors.
	avr >	2,4	2,2	2,4		avr >	2,0	1,9	1,7	
	1 str diss	20	18	11		1 str diss	25	9	33	
	2 diss	30	45	33		2 diss	50	91	67	
	3 agr	40	36	56		3 agr	25	0	0	
	4 str agr	10	0	0		4 str agr	0	0	0	

Figure 20 - Culture set 2, percentage agreement to statements per perspective

Small level differences are noticeable between the 3 identified perspectives, but they are smaller than the standard deviations within a perspective. **Overall, perspectives 1 and 3 tend to have similar average scores on set 2 of cultural questions, whilst perspective 2 often shows slight differences scores – towards the low side of the dimensions.**

Overview Power Distance: All managers incline to low power distance on a personal level, trusting their teams with the delegated tasks and ready to bring forth issues in front of their superiors. However, although they come from countries scoring low on PD, almost half of them do perceive their parent organizations as quite centralized - we are dealing with governmental organizations.

Overview Uncertainty avoidance: Although most managers agreed that they want to continue with their current job, Q-sort results show low rankings across all perspectives, of the criterion *continuity of client organization (C1)*. This can be because they are part of large governmental organizations, whose continuity is generally not an issue. The level of detail in scope depends upon the type of project. For P2 and P3, the UAI scores were slightly lower – managers know that they need to be flexible whilst awaiting the decisions, or they were chosen for challenging projects because of their flexibility in front of unexpected situations. P1 respondents appreciate a certain rules structure instead of trusting blindly people's common sense. However, rules are not to be followed blindly, as their ranking of criteria C13 (*Right process is followed*), shows, but to work as guidelines. P2 on the other hand prefers to rely on common sense, whilst the ranking of C13 is higher.

Overview Masculinity: Most of the managers agreed on inclining to reach group consensus, on the appreciation of the team as a whole and on favouring negotiation during conflicts. However, they still chose to rank criteria related to their *team's needs (C15)* in the mid-low range during their Q-sort, prioritizing aspects related to other actor groups. P3 managers inclined towards slightly higher MAS, showing a stronger stance and decisiveness, and in spite of their higher ranking in their Q-sort of criteria related to *relations with contractors (C6)* and to *needs of the project team (C15)*. It might be the case that, although they value and seek collaboration, they are still unable to drive it unconditionally, and at times need to show a stronger stance in order to get things done the way they plan. The results to this question do not correlate well with the ranking of the success criteria *6. good working relations with contracting partners*. P2 managers ranked this criterion lower (see chapter 7.2.), whilst they showed less inclination to argue with contractors than P1 and P2. Perhaps they know how to deal well with contractors and do not worry about arguments.

Overview Long term orientation: Managers tend to care more about the external image their organization projects, especially those loading on P2 – in politicized context, one's image in front of external influencers is more important. This enforces the higher scores for P2, on criteria related to *right process (C13)*, to *politics (C11)*, to *shareholders (C17)* and *stakeholders (C18)*. However, the positioning of criteria related to the professional image of the client organization (C3) ranks similar as in the other perspectives. The purpose is to maintain the trust of involved parties, not to save one's back. Scope flexibility is situational; however managers of undecided projects – P2 – showed more inclination towards it. Their low ranking of the *fitness for purpose (C5)* is in line with scope flexibility and adaptability – when final purpose is yet to be defined. When it comes to relations with contractors, managers see them as contractual, not long-term oriented, and are ready to get into arguments. This attitude is infirmed by the higher ranking in the Q-sort of the criteria related to *good working relationships with contracting partners (C6)*, but is aligned with the low ranking of *Profitability for the contractor (C10)*, across all perspectives.

Differences among perspectives for question set 2:

Perspective 1 respondents see their organizations as centralized and hierarchical. They strongly agree to entrust tasks to subordinates. A higher percentage showed higher propensity in defining better the scope before the tenders, for product focus. 50% distrust the people's common sense.

Although most of the managers appear ready to fight with contractors, 25% of respondents still prefer to maintain good relationships with the contractors, for the benefit of long-term goals.

Perspective 2 respondents perceive their organizations as more decentralized than P1 or P3. Show predilection for common sense and need fewer rules. Are bent on consensus and negotiation in case of conflicts (like P1). Are particularly worried about the external image, in case of failure to deliver. Are ready to argue with contractors if necessary, to fulfil goals.

Perspective 3 respondents have split views with regard to the centralization degree of their organization, and take a stronger stance than P1 and P2 on manifesting disagreement in front of superiors. They are more willing to be decisive in order to stop conflicts, appreciate individual excellence, and value specialists within the team.

7.3 Discussion

For assessment purposes, Hofstede's original questionnaire was not used, thus scores are not comparable. Then again the aim was not to replicate his results, but to assess infra manager's preferences – which often appeared to be not according to the expectations. Individual responses on relationships between items differ from societal averages. Inferences on cultural aspects, based on individual surveys, are often subject to controversy. "Cultural views can be inferred from individual surveys, but there is controversy on the level of measure design that link individual survey responses to societal or group characteristics." (Peterson, 2007) For further research, it is advisable to apply additionally Hofstede's original questionnaire, if there is a greater interest in scores concordance.

The content of the questions was derived from Hofstede's descriptions on his cultural dimensions, using aspects that can relate to success criteria in a project. The thesis committee was involved in the formulation process, and the questions were then tested with 4 managers involved in international projects, from Witteveen+Bos. They were, however, not used on prior large-scale studies, and their accuracy and weight in defining the subject's position on the cultural dimensions is subject to discussion. The answers to certain questions (20, 24 and 30), were acknowledged by respondents as highly circumstantial, relating to their current project used for Q-sort and cannot be extrapolated to a larger scale. Answers on item 39 could be biased due to misinterpretation of items; some participants might not have gotten the short-term nuance of "a network that *varies with business needs*". Joining two adjacent concepts into one job aspect (Challenge AND recognition, responsible AND perseverant) might induce bias.

Language wise, although efforts were taken to explain whatever possible misunderstanding during the interviews, it cannot be excluded that bias might arise due to the use of English, and inconsistencies between it and the respondent's native language. For question set 2, answering questions in a foreign language might have led to more moderate answer (respondents avoiding the strongly agree/strongly disagree options). If the interviewer is not their co-national, respondents are likely to give more positive presentations of themselves or their society. Furthermore, there is the issue of social desirability - image management or self-presentation bias, which may lead to distorted information.

P-set wise, it was aimed for proportionality among the number of respondents from each country; To accurately represent Belgium on the cultural scale, respondents from both Flanders and Wallonia would have been ideal. However, due to opportunity factors, the final set only contains Flemish

respondents – and in a lower number due to exclusion criteria from the P-set (different function, DBFM contract). Thus, the 5 Belgian respondents do not represent properly the whole country, as in Hofstede’s study, and might bare more similarities to the Dutch situation.

The size of the respondent’s lot is limited (50 respondents, out of which just 40 significant loaders considered here), and it is difficult to validate inferences based on such a small number of respondents. Overall, it can be underlined that the low number of respondents (40) is not sufficient to perform proper statistical cultural analysis, therefore insight at a more personal level was given, without the purpose of generalising the observations, but adding value to the perspectives derived from the Q-sort.

7.4 Conclusions on cultural bias

This international character of the research brought insight related to cultural aspects, which was added to our core theme - project success. The qualitative interpretation of the data is thus enhanced by including embedded cultural bias. Inter-country differences in the assessment of the two sets of cultural questions occurred, but not always as to be expected from Hofstede’s theory and country scores on four cultural dimensions: Power distance, Uncertainty avoidance, Masculinity or Femininity, and Long term orientation.

7.4.1 Cultural differences among managers from different countries

Looking at the raw data, it became clear that managers, irrespective of their countries of origin, showed a high inclination in selecting certain job aspects: low power distance aspects are a good example. This does not only confirm the low-power distance orientation of the countries, but also managerial characteristics as the inclination to exert authority and make decisions. Power distance results fit best to the expectations – all countries, including Belgium, inclined towards low power distance. The Finns selected also items related to higher power distance – a more “Eastern” attitude.

The most unexpected scores across all countries appeared on the Masculinity dimension. Large number of both masculine and feminine – oriented job aspects were selected by all participants. Respondents from countries that were considered feminine (DK, FI, and SWE) showed masculine traits, as seeking challenge and achievements, whilst countries expected to be masculine showed preference for items indicating femininity, as valuing consensus. Unlike Hofstede’s categorizations, they appear to combine masculine and feminine characteristics, in order to successfully lead projects. Therefore, in the assessment table they were positioned on masculinity as medium. Medium Long term orientation was manifested, as expected – with some inclinations towards the high side. Aspects related to Uncertainty avoidance were seldom selected – a low position was expected but for Belgium. Some of the scores did not align to expectations – a few Finn and Swede managers appeared to be more uncertainty avoidant, whilst Belgians were less so than expected..

The manager’s positioning on cultural perspectives was expected to influence mostly criteria concerning relations with authority (criteria number 11, 13, 16), with other actors (6, 15, 17, 18) and aspects related to their own organization (1, 3). Achievements can be related either to user satisfaction or to keeping indicators in order. The analysis confirmed that there are indeed cases in which special preferences on certain cultural aspects coincided with particular rankings on some of these success criteria, as shown in paragraph 7.1.3. However, this did not apply to all cases.

To point out a few findings, Finns appreciate as low the influence on success of political factors, and expect in less numbers to have a say in important decisions, because the go-decisions were taken prior to their involvement. Danes highly appreciated learning new skills, and that was reflected in their comparatively higher rankings on criteria related to learning opportunities (8) and growth and development (9). Swedes seek clear procedures and rules, whilst appreciating safety and following the right process as more important success criteria. Brits and Belgians showed masculinity in valuing an achievement oriented job, but disagreed on what achievement means: the first seek quality and user satisfaction, the latter – political support for (the approval of) their project.

Country wise conclusions for question set 1:

Most Belgian managers chose for perseverance and a responsible job, in which one can achieve things and none of them - for clear procedures, and job security. All Danes chose for a job where one can learn new skills and be adaptable. When it comes to achievement, it was selected by only half of the Danish respondents, less than all other different nationalities. Finnish managers chose in high numbers for perseverance and a responsible job, and less than other countries, for having a say in decisions and conducting a job useful for society. Swedes chose more than others, to have a job with clear procedures and rules, and a variable business network. On the other side, not as many Swedes, as compared to all other nationalities, chose for a pleasant, cooperative atmosphere among co-workers – business is business. All British managers selected for challenge and recognition, achievement and use of initiative, as favourite job aspects. The aspect that got less chosen than in other countries was the appreciation for generalists and common sense in decision making.

Country wise conclusions for question set 2:

The results show that the differences between countries are not as large as those expected, based on Hofstede's predictions. In brief, the interviewed infrastructure project managers do tend to think among the same lines in North-Western Europe. Managers from all countries show low Power Distance (average of 1,5 on a scale of 4) , medium to high Uncertainty avoidance (2,75 out of 4), low to medium Masculinity (1.9 out of 4) and medium Long Term Orientation (2,45 out of 4).

Belgians agreed to have a more decentralized organization, on not necessarily wanting to continue with the current job, and with appreciating common sense, rather than rules. Danish managers perceived their organizations as more centralized, and worry more about their organization's image. Finns appreciate individuals alongside team efforts, and process failure internally rather than worrying about their public image. Swedish manages are keen on entrusting tasks to team members, value more trust in common sense over rules and less flexibility for future needs in scope definition. Brits also perceive their organizations as centralized, are more prone to switch jobs, prefer in higher numbers less scope definition, distrust common sense and are less inclined to fight with contractors.

7.4.2 Cultural differences among different perspectives

There were a number of job aspects on set 1 of questions that were selected by almost all managers, irrelevant of the country, whilst others were barely chosen. This shows that there are cultural peculiarities in the aspects mentioned, which are not nation-wise, but specific to managers. It was subsequently shown that there are cultural aspects that managers loading on different perspectives appreciate differently, and that there is some cultural bias that influences managers on their Q-sort rankings. These cultural differences help add more definition to the characteristics of each perspective. These insights facilitate understanding in projects combining multiple nationalities.

Differences among perspectives for question set 1:

Perspective 1 respondents: Manifested inclination for aspects related to low power distance (PD-). Over 90% of them appreciated having a say in decision making and taking initiative - thus take a pro-active stance towards achieving the desired goals. Showed little interest for items related to uncertainty avoidance (UAI+), like clear procedures and job security – and also for the right process success criteria. Selected both masculine and feminine job aspects. On Long term orientation aspects too, they inclined towards a medium-high level.

Perspective 2 respondents showed, along with P1, appreciation for low power distance aspects that relate to decision-making and initiative. Performing a useful job for society and the environment (feminine aspect) was highly appreciated, since they must prove their project's utility to gain support from both stakeholders and decision makers. All 11 P2 managers confirmed preference for a pleasant, cooperative atmosphere at work. On the other hand, like P1 managers, they are challenge-seekers and achievement oriented. Inclined (along with P3) towards a Long term orientation, by valuing a responsible job, adaptability and learning.

Perspective 3 respondents appear to perceive power distance as larger than their colleagues on P1 and P2, as decision making and taking the initiative are not seen as the key incentives in a job. Regarding uncertainty avoidance, a higher share seeks job security, and clear procedures and rules. They make conscious efforts to flexibly keep track of the strategic moves of actor - and playing by the “right” rules can help. All of them are seeking challenge and recognition from the people involved in the process, but only half are achievement oriented. Also, they show less inclination towards a job that implies responsibility and perseverance – the combination of these aspects shows they have lower LTO than P1 and P2 managers. Appreciate their business network as essential.

Differences among perspectives for question set 2:

Perspective 1 respondents see their organizations as centralized and hierarchical. They strongly agree to entrust tasks to subordinates. A higher percentage showed higher propensity in defining better the scope before the tenders, for product focus. 50% distrust the people's common sense. Although most of the managers appear ready to fight with contractors, 25% of respondents still prefer to maintain good relationships with the contractors, for the benefit of long-term goals.

Perspective 2 respondents perceive their organizations as more decentralized than P1 or P3. Show predilection for common sense and need fewer rules. Are bent on consensus and negotiation in case of conflicts (like P1). Are particularly worried about the external image, in case of failure to deliver. Are ready to argue with contractors if necessary, to fulfil goals.

Perspective 3 respondents have split views with regard to the centralization degree of their organization, and take a stronger stance than P1 and P2 on manifesting disagreement in front of superiors. They are more willing to be decisive in order to stop conflicts, appreciate individual excellence, and value specialists within the team.

8

Parallel between the Dutch and Northern European countries perspectives

8.1 Comparing the Dutch results with the newly devised perspectives

The current research led to the definition of three different views on project success, held by public managers of infrastructure projects from 5 North – Western European countries. This new information adds to the already existent data on perceptions of Dutch managers – summarized in 3 other perspectives by Van Loenhout. In order to complete the initial set of research questions, in paragraph 8.2, the new devised perspectives will be paralleled with the previous Dutch perspectives. Paragraph 8.3 takes a step further, presenting a brief overview of the 4 perspectives that can be derived when the Dutch data is combined with that from our 5 target countries, and Q-analyzed.

8.2 Parallel between Dutch and NW-European perspectives

In order to point out similarities and differences, the Dutch and (North)- European perspectives will be paralleled in the following paragraphs. The basis for comparison is the ranking of the success criteria, and the pairs that undergo the comparison process are selected due to higher similarities in rankings and in preferences for specific groups of success criteria, as identified in at the start of chapter 6. Hereafter, the first and third European perspective (P1 and P3 EU – that are quite similar to begin with), are paralleled to the first Dutch perspective (P1 NL), whilst the second European perspective (P2 EU) is paralleled to the other two of the Dutch set (P2 and P3 NL) – showing some punctual similarities, but overall more differences in success assessment.

8.2.1 Perspective 1 EU paralleled to Perspective 1 NL

These two perspectives were chosen for comparison due to the *similarities in top and bottom ranking criteria and in prioritization of different criteria groupings* – high preference for iron triangle and for product-related criteria, low preference for right process and client organization benefits.

Description of perspectives:

Perspective 1 (EU) is common to (20) managers who emphasize safety and focus on fulfilling their mission: delivering a quality product, fit for the needs of the users. Indicators of the iron triangle are essential for a successful delivery. They value the relations with the project team and contractors as average, but more than the client organization's goals and image. Growth and development are just a by-product. They keep track of the human factors surrounding a project, without prioritizing them over project goal. P1 managers disregard following the "right" process blindly, and are flexible in their approach. They can maintain the ensemble view, not getting lost in operational details or procedures, and keep to the higher scope.

"Perspective 1 (NL)" is made up of project managers, who emphasize the importance of safety and do not let the political level make all their executive decisions. The public project managers are all technically educated; they are now bound by their attitude and seemingly analytical approach towards the execution and success of the project. There is not one 'right' process, as long as the

project is executed lawfully. Even if it is not in the contract, further cooperation with other parties is pursued. The perspective seems to have a clear focus point and the public managers seem to be able to keep a bird's eye view of the complex projects without losing themselves in details.”(Van Loenhout, 2013)

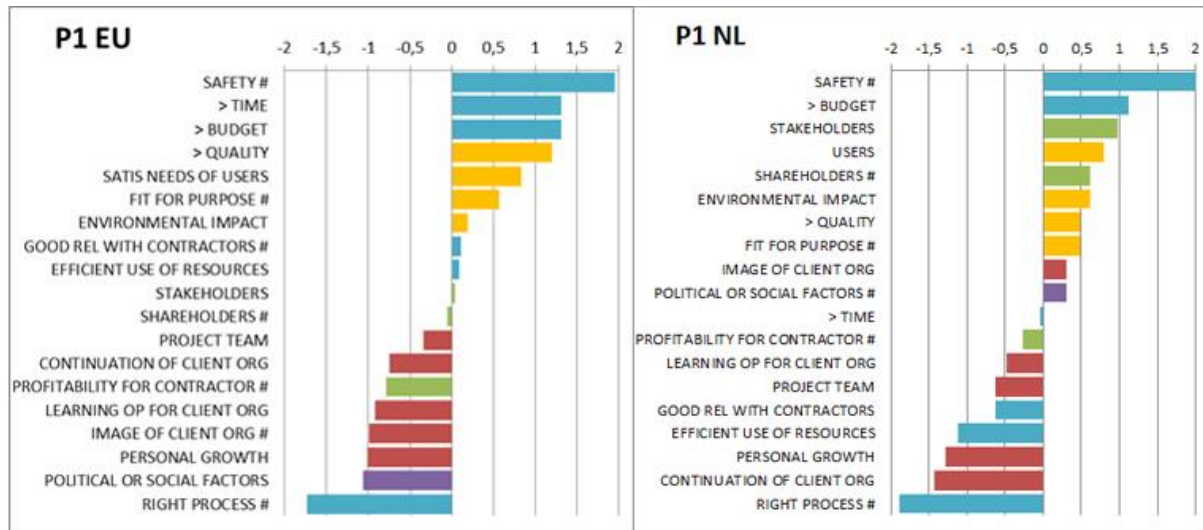


Figure 21 - Parallel view on rankings for European P1 and Dutch P1

Discussion – common points:

The top and bottom ranking criteria – *safety and right process* – are identical, with similar scores and reasons behind them, on both P1 EU and P2 NL. Also, the major groups of criteria – colour coded – tend to mirror each other quite well: first come critical execution process items, followed by product oriented items, and at the bottom of the list – items related to the internal client organization, and following the process. Therefore, the choice was made to parallel these two perspectives, and see where the differences lie. Indeed, there are a few item rankings that turned out to score quite different in the EU case, especially in what regards the human factor: politics, stake and shareholders and the contractor.

Discussion – differences:

Political factors receive the lower rank (array -3) of P1 EU. For projects where the final decision was taken, European managers consider politics out of project boundaries and focus on delivery. They are technical skilled persons, and prefer not to get biased during execution, as late scope changes cost dearly. In exchange, the Netherlands, political aspects still influence success, even for the holistic P1 managers. This criteria score neutral (“do not let the political level make all their executive decisions”). This is, however, the lowest rank political factors got among all 3 Dutch perspectives.

The effect on the image of the client organization is also more important in the Dutch environment. P1 EU respondents scored approximately 1.5 points lower than in the Dutch case. The public image issue can be also related to the importance given to political factors and pressure, which differs among the two perspectives. The criteria related to contractor needs and financial retributions rank considerably lower in the Dutch perspective than in P1 EU. This might be because of a climate of lack of trust in contractors at their national level. In the interviews conducted in other EU countries, there were relatively little complaints recorded on what regards the contractor’s trustworthiness or commitment to deliver.

The needs of stake and shareholders receive a quite higher ranking on P1 NL (array +1, closely following the top 3). P1 EU managers prioritized instead criteria related to the final product, and less caring for the vested interest of stakeholders (array 0, neutral area). Environmental issues are considered more important in the Netherlands than in EU (on all three perspectives), for project success. This might because the public opinion has a larger say to what regards loss of natural environment, in a small, densely populated country as the Netherlands.

Another particular aspect is that the iron triangle is much more scattered in the Dutch P1, than on the European P1: the timely delivery is considered of average importance by the Dutch managers, whilst in the other European countries, it comes second after safety. Quality also gets a lower score on P1 NL – it appears that the practical aspects weight a lot more on the European perspective – meaning a greater care for details, whilst the Dutch P1 managers are more socially inclined and indeed holistic.

All in all, we can say that the Dutch holistic managers have many common points with the European product-oriented managers, plus a stronger orientation towards human factors. The minus point for the Dutch is the low interest in good relations with contractors, and the loose focus on iron triangle indicators.

8.2.2 Perspective 3 EU paralleled to Perspective 1 NL

These two perspectives were chosen for comparison due to the similarities in high end ranking criteria and in prioritization of different criteria groupings – high preference for budget, safety, medium-high for process-related criteria, and low preference for client organization benefits. P1 EU and P3 EU are highly correlated, thus it is to be expected that similarities arise in the comparison process.

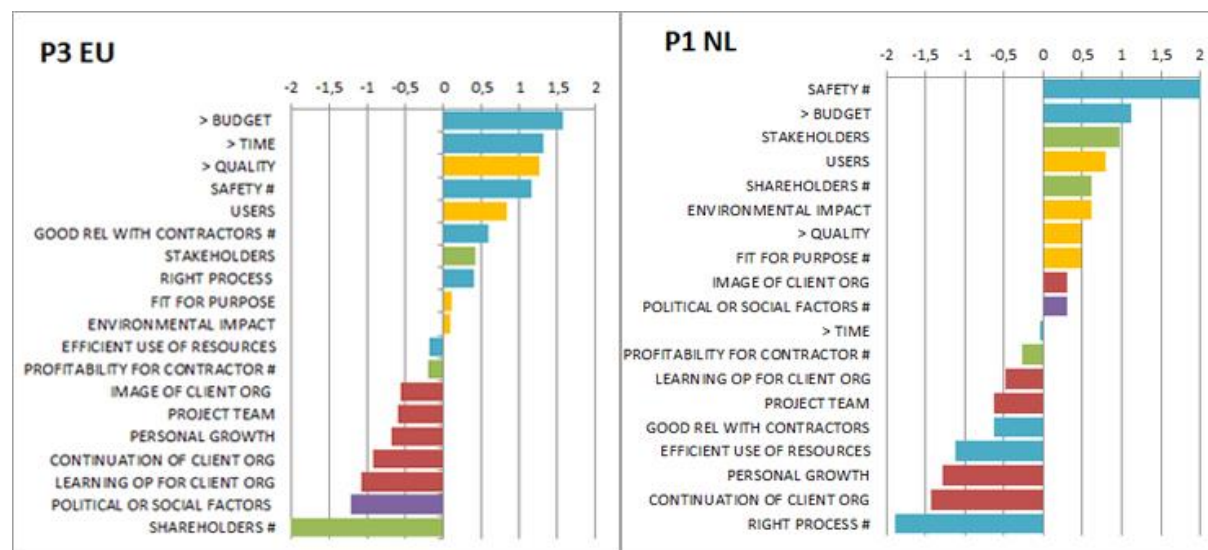


Figure 22- Parallel view on rankings for European P3 and Dutch P1

Perspective 3 (EU) is common to (9) managers that are socially involved and try to manage the expectations of external parties in order to achieve project goals. They consider collaboration and communication as the basis towards achieving a successful project, but see it conditioned by attention to work processes, people and earning and development chances. They follow the

traditional indicators of time, cost and quality, and are not willing to compromise on safety. There is no clear focus on product itself. Managers see things in their external context, and the undertaking is a social service towards their users, not a political mission or an isolated, yet ideal, product.. The image their organization projects tops the criteria related to the internal organization – but ranks after other actor's interests. Politics and shareholders are kept aside the project by keeping to indicators and tending to the human factors.

Discussion - parallel on perspectives:

3 out of the 5 highest ranking criteria – within budget, safety and user needs– are similar, with similar reasons behind them, on both perspectives. Among the major groupings, product-related and client-organization related criteria occupy similar positions along the scale: medium to high for the first group, and medium to low, for the second. There are also less differences with what relates to the importance given to the relation with stakeholders, contractors and the latter's earning chances. However, there are several other items, including the most and least important, that record quite different ranks, as it will be shown in the following paragraph.

There are a series of criteria with similar ranks between P1 and P3 EU, like political factors, client organization image, project team needs, environmental impact, iron triangle and user needs. Therefore, the same differences will appear between P3 EU and P1 NL, as mentioned previously in the P1 EU case. Political factors receive the lower rank (array -3) for P3 EU than for P1 NL. Although located in the neutral area, the effect on the image of the client organization is ranked lower on P3 EU than in the Dutch environment – where it scores positive. Environmental issues are considered more important in the Netherlands than in the EU batch (on all three perspectives), for project success. The iron triangle is much more scattered in the Dutch P1, than on the European P3.

There are, however, some aspects that differ in P3 EU, which will be highlighted in the coming paragraph. The criteria related to profitability for contractor is valued similarly by Dutch and European managers. However, when it came to good relations with contractors, in the Dutch perspective they got negative equivalent of the European Z-scores. European managers are much more bound on collaboration and value good relations with their contracting partners, than the Dutch, who see in it just a pure business relation, than an alliance for success. This might be because of a climate of lack of trust in contractors at their national level. The needs of shareholders receive a quite higher ranking on P1 NL (array +1, closely following the top 3). P3 EU managers instead considered it as the least important for achieving success in a project, and see it covered instead by tending to iron triangle indicators.

8.2.3 Perspective 2 EU paralleled to Perspective 3 NL

The top and bottom rankings on the European P2 perspective do not mirror exactly the Dutch one, but *there is a certain similarity in in prioritization of criteria groupings related to client organization and external parties, approach towards political influences and contractor's profitability*. These items establish adequate comparison grounds among The European and the Dutch Perspectives no.2.

Perspective 2 (EU) is held by (11) managers who are working challenging on projects still pending a final decision. This FED phase shapes their view on project success. The focus is less on the future users, and more on the decision makers upon whom the project still depends, political factors, share- and stakeholders, making the managers process bent. It is possible that these managers were

selected precisely because they are empathic and know how to operate in such a complex external environment. Their mission is to prove they can deliver the project on time and budget – explainable performance indicators. Quality, Safety and fit for purpose are less important aspects for political support. Further, although they want good relations with their contractors, but downplay the importance of them making a profit. Personal interests and those of their own client organization come last in defining project success, in an uncertain project environment.

“*Perspective 2 (NL)* appears to be led the core belief that its public project managers are working for the public, improving the city or region: they are all socially engaged. Following the procedures and conducting the right process is viewed as a guarantee for ending up with the right end result. There is much awareness of working with ‘tax payers’ money’ which should not be wasted: they are indifferent to whether or not the contractor makes a profit. There is an ambiguous relationship with politics, in which they are not steered in a clear direction, but do have close contact with the politician. This perspective emphasizes the social issue, for which the project was started up. But these public project managers seem to lack consistency and clear focus – they are ambiguous on what determines their project success and it seems to be largely determined by criteria that they cannot control.”(Van Loenhout, 2013)

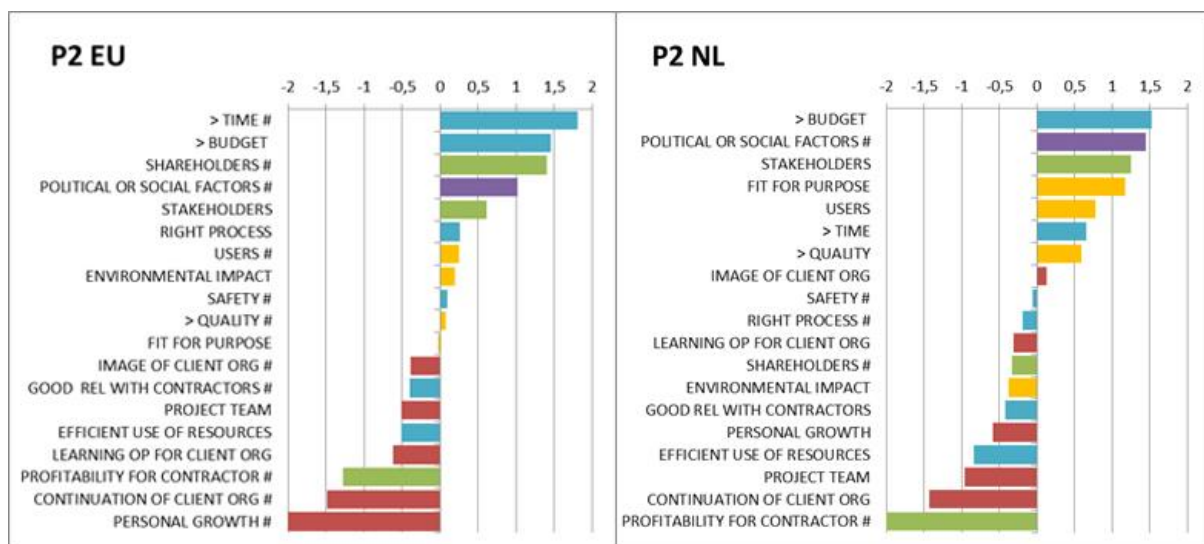


Figure 23 - Parallel view on rankings for European P2 and Dutch P2

Discussion - parallel on perspectives:

P2 are the perspectives that recorded a similar ranking, on the high side, for political factors – although the score is not as high as in the Dutch perspective 2, they are highly influential for project success in the opinion of the European lot as well. There is steering involved, clearer geared towards time and budget for the EU group, and with less clear success priorities – but for budget, for the Dutch perspective. Following the right process is seen of average importance on both perspectives, although non-Dutch P2 managers value it slightly more than Dutch ones.

Profitability for the contractor and client organization continuation score very low on both of these politically biased perspectives. Along with the project team’s needs, these are not seen as crucial factors for success, and are kept on the low, in order to focus on the project goals, as dictated by other parties involved.

European managers prioritized shareholder over stakeholder needs, while in the Dutch case the opposite is true – stakeholder’s opinions are seen as shaping success more bluntly. The reason lies in the different understanding, at times, over the term shareholder – Dutch managers saw it as representatives of money outside of national government, whilst in several cases, non-Dutch managers saw politicians as representatives of the taxpayer’s money. Also, it might be the case that Dutch Stakeholders are much more vocal, and socially engaged managers worry more about their support, than in other European countries. Dutch P2 managers appear more product oriented, whilst criteria related to the final product are ranked average on the European P2, where the focus is tilted towards human factors.

P2 EU recorded a large number of projects in an early stage, when the final product is still far off, whilst Dutch cases have a more advanced phase. The fitness for purpose and the user needs are therefore seen as more important in NL than in EU, on P2. In this aspect, P2 NL is more similar to P1 EU, where satisfied users and a good end product make or break a successful project. The on time criteria is crucial for EU political projects, whilst in the Netherlands, there is less emphasis on time, the weight being on staying within budget. The reasons for this lie in the backgrounds of the projects – either connected to other developments, or restricted by available funds.

Given this analysis, we cannot state that the perspectives are a perfect match. The EU P2 combines different aspects of the NL perspectives P2 and P3. P2 EU are projects that pend on political good will, but whose managers have – unlike P2 NL, more like P3 NL - clear priorities in the iron triangle indicatives. Both discussed perspectives show socially engaged managers, but whilst P2 NL seem to be lost among external influencer’s opinions, the EU ones still manage to keep a cold head in gearing their project. As a last observation, the scale of the projects in discussion for P2 is different – Dutch managers operate at a more local scale, whilst the other cases contain projects that, even if executed locally, are of interest and impact at a national level.

8.2.4 Perspective 2 EU paralleled to Perspective 3 NL

The higher political influence on project success, perceived by manager loading on both of these perspectives, are the basis. The top and bottom rankings on the European P2 perspective do not mirror exactly the Dutch one, but there is a certain similarity in in prioritization of criteria groupings related to client organization and external parties, approach towards political influences and contractor’s profitability. These items establish adequate comparison grounds among The European and the Dutch Perspectives no.2.

Perspective 2 (EU) is held by (11) managers who are working challenging on projects still pending a final decision. This FED phase shapes their view on project success. The focus is less on the future users and qualities of the product, and more on the decision makers upon whom the project still depends, political factors, share- and stakeholders, making the managers process bent. It is possible that these managers were selected precisely because they are empathic and know how to operate in such a complex external environment. Their mission is to prove they can deliver the project on time and budget – explainable performance indicators. Quality, Safety and fit for purpose are less important aspects for political support. Further, although they want good relations with their contractors, but downplay the importance of them making a profit. Personal interests and those of their own client organization come last in defining project success, in a uncertain project environment.

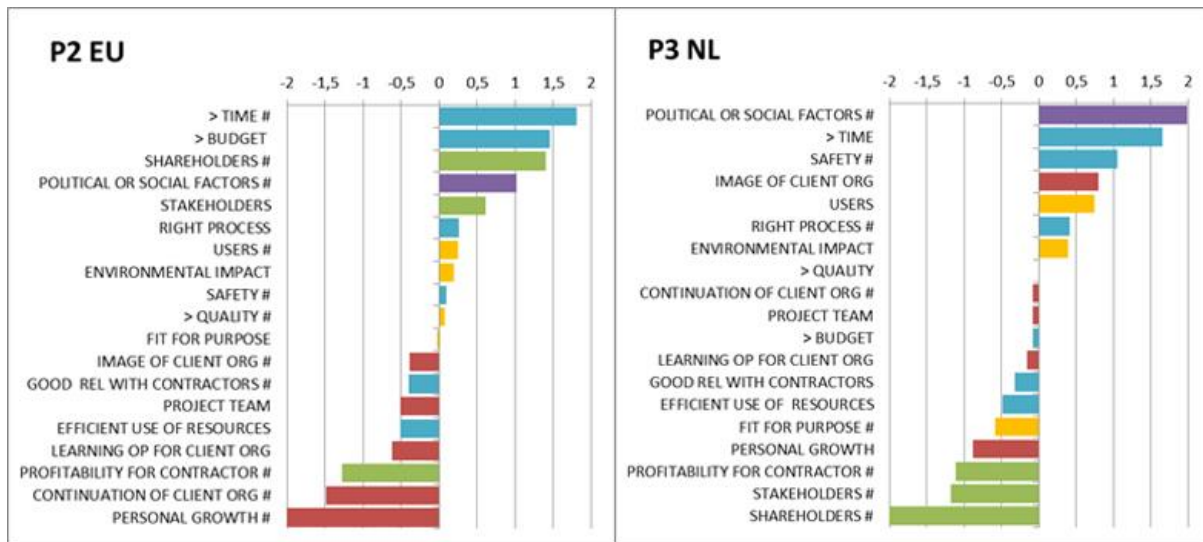


Figure 24 - Parallel view on rankings for European P2 and Dutch P2

“*Perspective 3 (NL)* is held by public project managers active at the regional and national level of the governmental organization. Though there is no contact with the politician responsible for their projects, there is perceptible top-down pressure of politics. The political pressure is related to a criterion of the iron triangle: the pressure is high to deliver the project on time. The right process is viewed as important, because to follow the process accurately is a means to forestalling any legal procedures that might arise. These public project managers share a goal-oriented perspective, which provides clear guidance throughout the project.”(Van Loenhout, 2013)

Discussion - parallel on perspectives:

These two perspectives recorded ranking on the high side, for political factors and a timely delivery. Although politics are not the top priority as in the Dutch perspective, they are highly influential for project success in the European lot as well. There is steering involved, clearer geared towards time in both cases. Following the right process is seen of similar, medium-high importance on both perspectives, but the approach towards process differs, as shown below.

Secondary gearing focuses differ a lot more between these two perspectives. Whilst the Dutch P3 focus on safety, user needs, and their image, the European P2 lot is preoccupied are budget, stake- and shareholder needs. Within budget tops the EU perspective, whilst on the Dutch one it ranks as average. The professional image of the client organization and safety are very important in the Dutch perspective, less so at European level.

EU managers are keen on two of the three iron triangle aspects –time and budget, whilst in the Dutch case, time alone is paramount, and budget is of neutral importance for project success. It seems that their priorities in management are strongly biased by the political gear. Both perspectives rate quality as of average importance – the goal orientation relates to political pressure points, thus managers focus less on the product.

Regarding in-team human factors, Project team and needs get the same array, but lower scores on the European perspective. Also, contractor’s profitability is of similar, low interest for both of these perspectives, being the 3rd least important criteria – The Europeans underplay it because the execution has not yet started, and contractors are not so actively involved, whilst in the Dutch case, this is just not the top priority for public managers.

A major difference among the two perspectives is the very low importance attributed by Dutch managers to stakeholder and shareholder needs, when compared to the European lot – in spite of the high rank of political and social factors. The European connect these three criteria, whilst for the Dutch, criterion 11 appears to relate more to political pressure, than to satisfying social needs and claims. Dutch follow the process to forestall any legal actions that cause delay, not to actively involve external parties. The latter project phase might be the reason behind that. Although the political influence mentioned in the perspective descriptions might lead us to think these perspectives could be similar, they actually do not make a good match in many aspects. *There is a higher match between P2 NL and P2 EU, whilst P3 NL appears to have no counterpart in the European perspectives.*

8.3 Results of Combined Q-sorts (Dutch and NW European)

The last step taken in the paralleling process was to input into the PQ Software the results of the 26 Dutch Q-sorts, alongside 42 sorts from our 5 EU countries, and to do an overall analysis. Table 16 briefs on the results: 4 overall perspectives could be identified. They mostly overlap with 4 out of the 6 already derived perspectives. In the following, they were named P1/ P2/ P3/ P4 Mix.

P Mix	P EU	Code	P Mix	P EU	Code	P Mix	P NL	Code
		B01	1	3	S01	3	3	NL01
1	3	B02	n	3	S02	4	n	NL02
		B03	4	2	S03	1	n	NL03
n	2	B04	4	2	S04	4	n	NL04
4	2	B05	1	1	S05	3	3	NL05
2	2	B06	1	n	S06	3	3	NL06
4	2	B07	1	1	S07	4	2	NL07
		B08	1	1	S08	2	2	NL08
		B09	1	1	S09	4	1	NL09
1	1	D01	2	1	S10	n	2	NL10
4	2	D02	1	1	S11	3	2	NL11
3	3	D03			UK01	2	2	NL12
4	2	D04	1	1	UK02	2	n	NL13
4	2	D05	n	n	UK03	2	2	NL14
1	1	D06	1	1	UK04	2	2	NL15
4	2	D07	1	1	UK05	4	1	NL16
1	1	D08	1	1	UK06	1	1	NL17
		D09	1	1	UK07	3	2	NL18
2	1	D10	2	1	UK08	2	2	NL19
1	3	F01			UK09	4	2	NL20
4	2	F02	1	3	UK10	3	3	NL21
1	3	F03	1	1	F08	2	2	NL22
1	1	F04			F09	2	2	NL23
1	3	F05	1	1	F10	4	2	NL24
1	1	F06				n	1	NL25
1	3	F07				2	2	NL26

Table 16- Results of combined EU NL Q-sorts – new vs old perspective numbers

Country	Number of respondents loading on			
	P 1	P 2	P 3	P 4
Belgium	1	1	0	2
Denmark	3	1	1	4
Finland	8	0	0	1
Sweden	7	1	0	2
UK	6	1	0	0
Netherlands	2	9	6	7
Total	27	13	7	16

Table 17 - European and Dutch loading on different mixed perspectives

When looking at the perspective loaders among countries, it is apparent that P1 is common in NW Europe, but less so in Belgium and Netherlands. P2 and P3 are mostly defined by Dutch loaders, and P4 is the only perspective fairly well represented in most countries. The following paragraphs will give more details on these new “Mix” overall perspectives.

8.3.1 Perspective 1 Mix

The first of the combined perspectives, called P1Mix, dominates the new perspective set (27 of 68 sorts). It registers as loaders most of the international managers loading on P1 EU (18 out of 20), P3 EU (7 out of 9) and 2 out of 4 loaders on the Dutch P1. We can thus state that this first mixed perspective is combining the above sorts, that were already shown to be quite similar in paragraphs 8.2.1 and 8.2.2.

The ranking of criteria maintains the outline of P1 EU, with safety and iron triangle of major importance, followed by product – related criteria, external actors, client interest and, at the bottom of the scale, criteria related to political factors and to keeping to the right process. There are of course some very small differences in ranks and Z-scores, due to input of the other loaders from P3EU and P1 NL.

Most of the criteria are distinguishing for this perspective, as the other views among the batch of mixed perspectives are quite different.

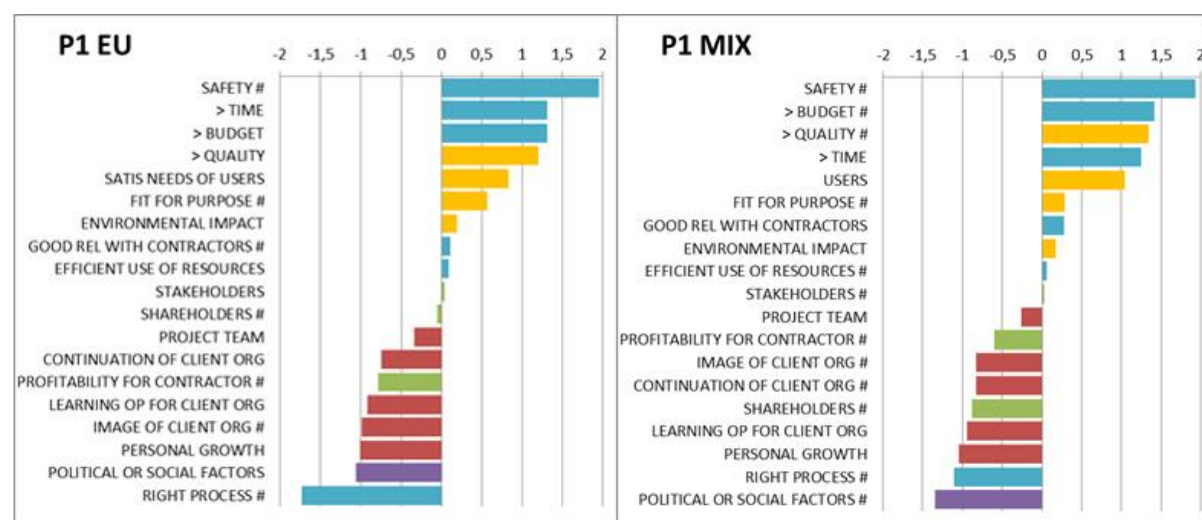


Table 18 - Parallel view on rankings for P1 EU and P1 Mix

P1 Mix stands for managers who can keep track of both final product and efficient process, and hold a holistic view over their project. It is the dominant view encountered in most North – Western European countries, but it is much less encountered in the Dutch infrastructure market.

8.3.2 Perspective 2 Mix

The second combined perspective, P2 Mix, is less well represented(13 of 68 sorts), and its loaders are mostly Dutch managers who previously loaded on P2 NL (9 out of the 13). There are also international loaders (one from each country, but for Finland) – but these are exceptions from the P1 Mix layout. We can thus state that the second mixed perspective is a derivate of the second Dutch perspective - pertaining to so-called *socially engaged, ambiguous manager*. There are slight changes in criteria order due to the input from the other international loaders.

On the success criteria ranking, there is a certain shuffle for criteria at the top of the scale: budget maintains position, but political factors and stakeholders fall in rank due to the European input (low ranking on criteria 11). At the same time, user needs and fitness for purpose gain positions, so as we can say that this overall perspective puts more emphasis on the satisfaction with the resulting product (although quality does not join in the league of top success criteria). The bottom range of the scale is much more similar to P2 NL.

Fit for purpose, time, budget and stakeholders are distinguishing criteria for this perspective – time is of less importance, whilst fitness for purpose and satisfied stakeholders are more dominant than on the other 3 perspectives.

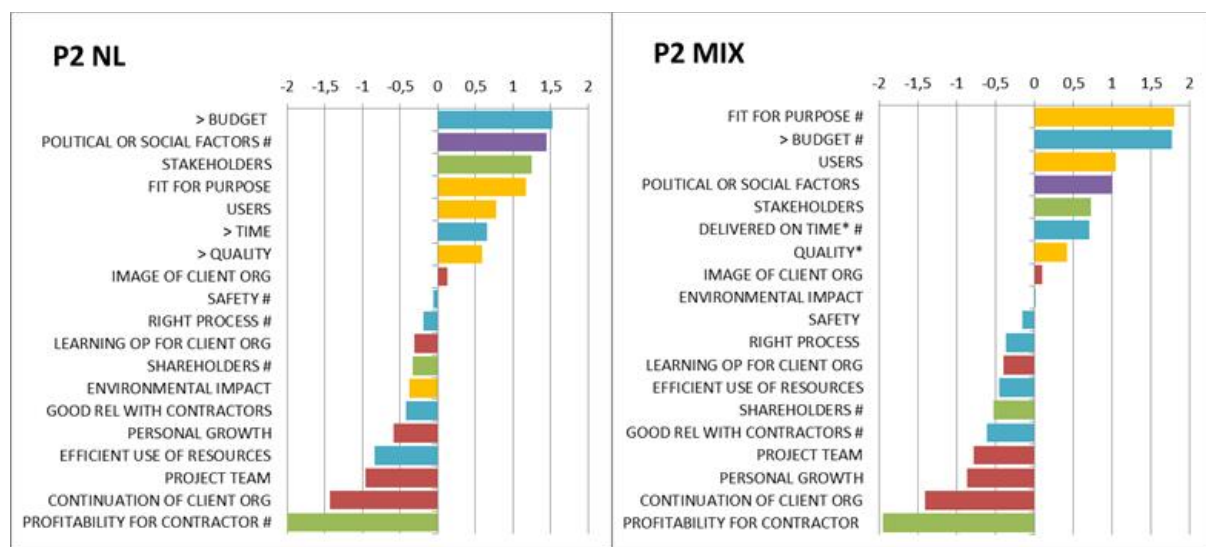


Table 19 - Parallel view on rankings for P2 NL and P2 Mix

P2 Mix stands for managers who are socially engaged, and care about future users, stakeholders and politics. This social involvement makes them loose track of project goals, as in P2 NL, leading to an ambiguous approach to success. It is the dominant view encountered in in the Dutch infrastructure market, but it is just occasionally encountered in North – Western European countries.

8.3.3 Perspective 3 Mix

The third combined perspective, P3 Mix, has the least number of loaders (7 of 68 sorts), but it is clear that these are the Dutch managers who previously loaded on P3 NL (4 loaders), joined by two other loaders of P2 NL and one (naturalized) Dane with a similar viewpoint. The third mixed

perspective is a derivate of the third Dutch perspective - *execution of a top-down imposed assignment*.

The 3 additions besides the basic P3 NL loaders caused just very small modifications in criteria – the client image, budget and stakeholder’s needs rose a bit in importance for success, whilst continuation of client organization and efficient use of resources fell in the ranking.

There are 8 distinguishing factors, mostly related to external actors – most (6) similar to P3 NL.

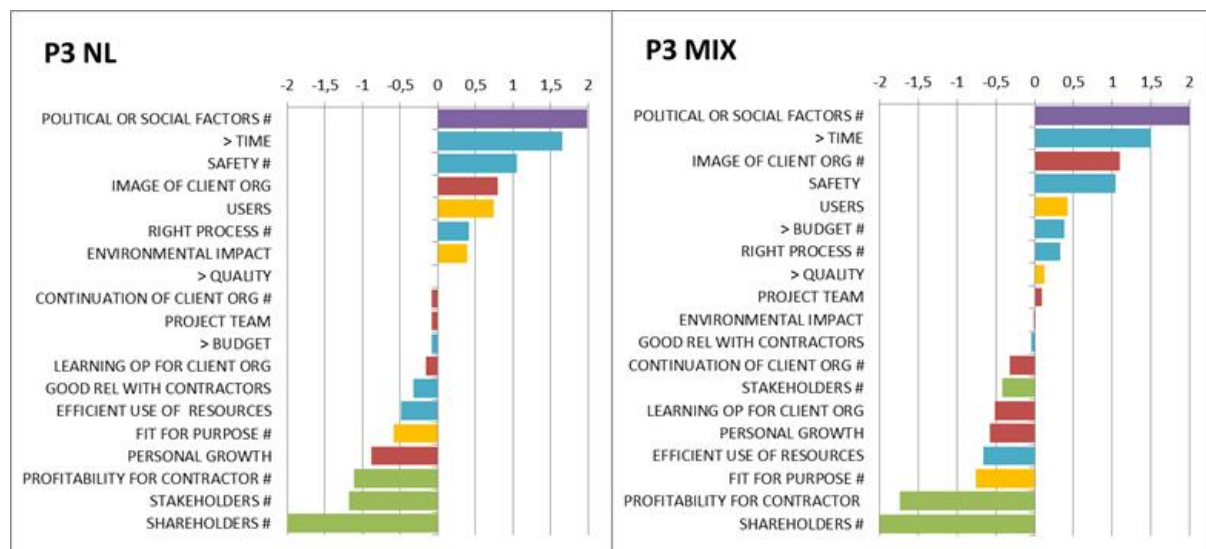


Table 20 - Parallel view on rankings for P3 NL and P3 Mix

P3 Mix stands for managers who are on a mission of executing a top – down imposed assignment, and in doing so follow the lead of political leader, as in P3 NL. It is a view encountered mostly in the Dutch infrastructure market. North – Western European public managers did not place such importance on socio-politic aspects as success criteria in their projects.

8.3.4 Perspective 4 Mix

The fourth combined perspective, P4 Mix, has a relatively high number of loaders (16 of 68 sorts), from all participating countries (but for UK). It can be easily noticed that all 9 previous loaders on P2 EU are now loading on P4 Mix. They are joined by 7 Dutch managers with different antecedents – non – loaders, or loaders on P1 or P2 NL. We can thus state that the fourth mixed perspective is a derivate of the second European perspective – *management in a politicized environment*.

Time, budget, shareholders and stakeholders keep their high ranks, as in P2 EU. This is due to the Dutch input, they are joined by Safety and quality, criteria that saw a rose in ranking. At the same time, following the right process dropped in rank (from +1 to -1) under the influence of Dutch manager’s perception. The product- related criteria are still ranking in the neutral area, and the bottom of the scale contains criteria related to client team and contractors.

There are just 4 distinguishing factors, shareholders, budget, fit for purpose and personal growth – all encountered in the P2 EU list.

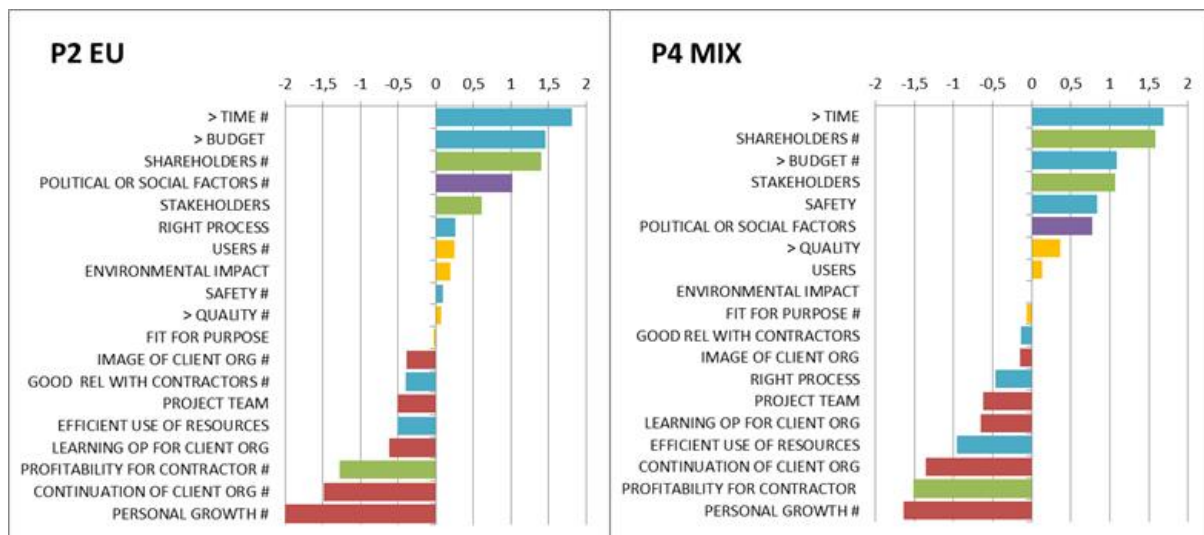


Table 21 - Parallel view on rankings for P2 EU and P4 Mix

P4Mix stands for managers who are working in a politicized environment, and therefore place a lot of importance on political and social elements in the project environment, as in P2 EU. It is a view encountered in all countries but for the UK, and is characteristic of projects yet to be decided, or with strong political drives.

8.4 Discussion parallels among perspectives

Regarding the parallels made between the European perspectives devised by this study, and the Dutch perspectives derived in earlier research, it cannot be stated that the perspectives are a perfect match between any pair of perspectives, thus the process revealed more differences than similarities between perspectives. A discussion point would be the much smaller budget range Dutch projects cover and the larger variation in levels of the organization where the managers were employed. The projects analysed in the current study, even if executed locally, are often of interest and impact at a national level. This implies that the European managers interviewed operate often at a higher level, and deal with stakeholders differently than in the Dutch case, thus the differences in Q-sorts. The interviews in the Netherlands were conducted in Dutch by a conational, and there was less chance for bias in responses, and more openness with regard to how much the politics and stakeholders influenced their project. The larger number of Dutch sorts might have induced bias in the Mixed perspectives – as two out of four ended up mostly Dutch. If only the larger Dutch projects were to be submitted for analysis (to have more proportional respondents and project sizes), there is a chance that some of these perspectives would not have sufficient loaders so as to be maintained.

8.5 Conclusions on the paralleling process

It cannot be stated that there is a perfect match between any pair of Dutch/ European perspectives.

P1 EU and P1 NL appear similar at first glance, but there are sufficient aspects that do make a difference between them – mainly a stronger importance given by Dutch managers to human factors surrounding the project environment. From this point of view, there is more similarity between the Dutch P1 and the European P3, who value stakeholders, contractors and the overall process more. We can state that The Dutch Holistic Perspective 1 combines aspects of both the Process-oriented European Perspective 3, and the Product-oriented European Perspective 1. Indeed, for a holistic approach, it is necessary to follow both directions in parallel. The downside is that there is less

emphasis on keeping to the iron triangle indicators, and on investing in good relations with contracting partners.

As for the European Perspective 2, it includes rankings similar to the Dutch P2 at the top of the scale, and partly to the Dutch P3 at the bottom of it. However, European P2 managers do not appear to be so biased by external inputs as their Dutch P2 counterparts, but neither are they so “dominated” by the political factors in their project as the Dutch P3. EU P2 managers lead projects that pend on political good will, but whose managers have – unlike P2 NL, clearer priorities, and unlike P3 NL, seek more actor involvement. They are socially aware, flexible leaders, and they get involved actively in the decision-making process for their project.

When all 68 available Q-sorts are input for the analysis, four “new” mixed overall perspectives arise.

The first Mix perspective is a combination of 3 earlier devised perspectives (P1 and 34 E and P1 NL). It is dominant , and stands for analytical, holistic project managers with clear priorities and able to focus on both product and process. It is less common in the Netherlands.

The second Mix perspective is a derivate of the second Dutch perspective, gathering socially involved, ambiguous managers, who risk to lose track of project goals in the fuzzy process. It’s dominant in the Netherlands, and appears occasionally in other countries too.

The third Mix perspective is a derivate of the third Dutch perspective, and is encountered almost exclusively in the Netherlands. It is proper for managers who execute under clear political steering – situation less common for managers interviewed abroad.

The fourth Mix perspective is encountered both in the Netherlands and abroad, and is common in particular project circumstances – undecided project (FED) or political driven project. It is very similar to the European P2 in criteria ranking, and it might change once decisions are taken and political direction is clarified.

These overall perspectives confirm the similarities and differences identified in the previous paralleling process. The orientations presented in the mix perspectives show that there are European perspectives valid overall (P1 Mix and P4 Mix), as well as peculiar approaches to success, typical for the Netherlands (P2 Mix and P3 Mix). These may be due to the organizational level of the manager, or to particular situations in the Dutch construction industry (lack of trust in contractors due to Bouwfraude) or to cultural aspects (Polder model, stronger influence of stakeholders and users in infrastructure projects). Therefore, Dutch consultants and contractors interested in undertaking projects abroad should expect (but for highly politicized projects) analytical approaches on success of their public partners, than in their home country.

9

Conclusions

The three initial objectives of this follow up exploratory research were: to expose point of views of public managers on project success in North-Western European countries, to indicate cultural differences and if they affect manager's perspective on project success, and to propose learning opportunities in a European context. These were embodied in the following research question: *"How do perspectives on project management success, of public project managers of infrastructure projects, from North-West European countries, parallel each other?"*. The broad research question was structured into several sub-questions connected to the research objectives, and covered in different chapters. The concluding chapter will briefly answer them as follows:

Section 9.1. will present the (quantitative and qualitative) conclusions to the Q-methodology study; Section 9.2. will give final remarks on the cultural differences and influence on success assessment; Section 9.3 will conclude on the comparisons realised between the perspectives identified by this research, and those in the previous study conducted in the Netherlands.

9.1 Conclusions on European Perspectives on project success

This section will present the results to the first pair of sub-questions: *"How do public managers in Belgium, UK, Sweden, Finland and Denmark assess success criteria in their current projects? What managerial perspectives can be formulated based on the rankings of these success criteria?"* The answer to the first question is constituted by the quantitative data gathered by the Q-sorts, presented in chapter 5. The second was answered by giving a qualitative interpretation to this data, based on the interviews with the 50 public managers, presented in chapter 7.

To expose views on project success common in five European countries, 50 interviews were conducted with public project managers of infrastructure projects. The framework applied was Q-methodology, using the list of success criteria for public managers devised by van Loenhout. After excluding participants who deviate from the P-set requirements, 42 Q-sorts (of 5 Belgians, 9 Danes, 9 Finns, 10 Swedes and 7 Brits) were further analysed. The analysis led to a solution of 3 different factors, presented as common perspectives on project success (P1, P2, and P3). There are two confounders P1 - P3, and also two respondents who did not load on none of the perspectives. Perspectives 1 and 3 are strongly correlated, whilst P2 has more different characteristics.

9.1.1 Three perspectives on project success

The Q-sorts resulted in 3 distinct perspectives on project success, described below:

Perspective 1/ Product oriented management, is common to (20) managers who emphasize safety and focus on fulfilling their mission: delivering a quality product, fit for the needs of the users. Indicators of the iron triangle are essential for a successful delivery. Relations with the project team and contractors are ranked neutral, but higher than the client organization's goals and image. Growth and development at the lower places which means these criteria are less important to these managers in measuring project success to their standards, and are often described as a by-product.

These managers keep track of the human factors surrounding a project, without prioritizing them over project goal. They refrain from following the “right” process blindly, and are flexible in their approach. They can maintain the ensemble view, not getting lost in operational details or procedures, and keep to the project’s scope – infrastructure delivery.

Perspective 2/ Management in politicized/ decision making context is held by (11) managers who are working projects with political influences, or still pending a final decision. The phase shapes their view on project success. The focus is less on the future users and qualities of the product, and more on the decision makers upon whom the project still depends, political factors, share- and stakeholders, making the managers process bent. It is possible that these managers were selected precisely because they are empathic and know how to operate in such a complex external environment. They seek to prove they can deliver the project on time and budget – explainable performance indicators. Quality, Safety and fit for purpose are less important aspects for political support. Further, although they want good relations with their contractors, but downplay the importance of them making a profit. Personal interests and those of their organization come last in defining project success, in an uncertain project environment.

Perspective 3/ Process oriented management is common to (9) managers who are socially involved and try to manage the expectations of external parties in order to achieve project goals. They consider collaboration and communication as the basis towards achieving a successful project. Special efforts are done to achieve efficiency within the delivery team. Unlike P1 managers, they feel the need to enhance collaboration by paying attention to work processes, people and earning and development chances. Technically, they follow the traditional indicators of time, cost and quality, and are not willing to compromise on safety. The resultant product characteristics a bit ambiguous within the ranking, there is no clear focus on product itself. Managers see things in their external context, and the undertaking is a social service towards their users, not a political mission or an isolated, yet ideal, product. The image their organization projects tops the criteria related to the internal organization – but ranks after other actor’s interests. Politics and shareholder’s influence is kept aside the project by keeping to indicators and tending to the human factors.

9.1.2 Discussion on success criteria

The public sector managers give high importance to indicators forming the iron triangle, and keeping to them is determining for project success – but for P2, time, budget and quality always rank among the most important 4 criteria. There is agreement among all perspectives, that a project delivered within budget is a success. Criteria like on time and quality are highly appreciated by P1 and P2 managers. Perspective 2 have skewed views on these items: proving that you can deliver on time is valued more than proving you can deliver quality in yet undecided or politicized projects.

Managers appreciated as consistent the list of success criteria derived in the previous research. Among the 19 success criteria enlisted, there are 4 criteria upon which respondents agree on importance for success, irrespective of their perspective, whilst for 14 others there is no agreement – thus they play distinguishing roles for the three different perspectives identified. Among the 4 criteria that do not distinguish any pair of perspectives, three relate to client team and organization’s interest and to sustainability, and are considered as neutral in success achievement. The fourth belongs to the iron triangle – everyone agrees that keeping within budget is crucial for success. The remaining criteria, related mostly to external environment, execution process and

resultant product, are the ones that truly bring out differences between perspectives. It is interesting to note that the distinguishing criteria considered important for project success are, besides the iron triangle, elements related to the resultant product, which are within the manager's reach, and/or the elements related to the external environment of the project, that need to be monitored. Personal or client organization's needs ranks vary, but are seen overall as less important.

9.1.3 Lessons to be learned

As an answer to the first pair of research question, 3 perspectives that represent current views on current projects, were devised. Given the international span and detail depth during interviews, they brought insights that are more relevant than a general population view. Consultants and contractors interested in getting involved in projects in North-Western Europe can expect to come across managers on the client's side, whose approach to success is similar to the views presented in this chapter: managers focusing on product, on process or on pursuing decision maker's support. Project phase is supposed to have an effect on the approach taken, but between P1 and P3, the inner nature of the manager itself will play a bigger role.

Perspectives 1 and 3 (product – and process – oriented management) are highly correlated, and appear often in the execution phase. The differences among seem to stem from the manager's personal framework. Valuable lessons can be learned by loaders of these two perspectives: P1 managers could take a more people-oriented approach to balance an eventual unstable situation, and strengthen their bonds with the contracting partners, whilst P3 managers could learn from P1 to keep the focus on the final goal, in spite of being dragged along a cumbersome process. Perspective 2 is common among managers involved in projects pending decision, or with higher political influences. Interviewees mentioned that priorities change after the go-decision is taken, thus it is expected that their perspective would shift, according to personal inclination, towards P1 or P3.

9.1.4 Inclinations of target countries

Given the small lot of respondents from each country, these results are not to be generalized, but they do give an orientation of the approaches and external circumstances in different countries. Country wise, we see that UK and Sweden exhibited the largest percentage of public managers of large projects with a P1, product-oriented view. Half of the managers from Finland and Denmark took the same approach – handling in a safe and efficient way the project they had assigned, avoiding external disturbances and focusing on the scope. Finland shows more inclination towards a P3, collaborative approach, and the small set from Belgium, along with Denmark – mostly due to the envisaged project's circumstances or current phase, have higher shares of the P2 approach.

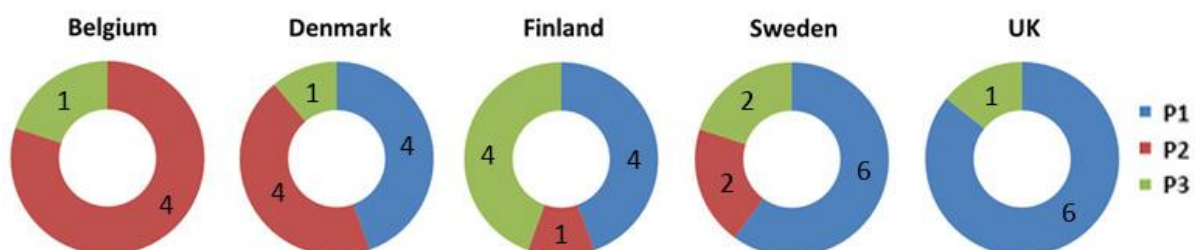


Figure 25 - Perspectives spread among 5 respondent countries

9.2 Conclusions on Cultural differences

Section 9.2. will elaborate on the second pair of sub- questions : *“What culture particularities can be expected in the target countries? What is the cultural positioning of managers, and can it be linked with the dis/similarities between perspectives and preference for criteria?”* Cultural theories and particularities between countries were discussed in chapter 3. Two sets of cultural questions were used to aid to culturally position respondents. Chapter 8 showed the responses to these questions and their links to national culture and to the results of the Q-sort.

The international character of the research brought insight related to cultural aspects, which was added to our core theme - project success. After an assessment of several theories on cultural differences, the choice was made to focus on the cultural dimensions theory devised by Hofstede, and mainly on 4 cultural dimensions on which the target countries were deemed to score differently (Power distance, Uncertainty avoidance, Masculinity or Femininity, and Long term orientation). Two sets of cultural questions based on Hofstede’s theories were used to gain more insight on the orientation of the managers on these dimensions, and on possible reasons behind specific characteristics of the perspectives they load on. The qualitative interpretation of the data was thus enhanced by including embedded cultural bias. Inter-country differences in the assessment of the two sets of cultural questions occurred, but not always as to be expected from the theory (Table 22).

Country	dimension >	PD	UAI	MAS	LTO
BELGIUM	EXPECTED	MEDIUM	HIGH	MED/ HI	HIGH
	RESULTS SET 1	LOW	LOW	MEDIUM	MED/ HI
	RESULTS SET 2	LOW	MEDIUM	LOW	LOW/MED
DENMARK	EXPECTED	LOW	LOW	LOW	MEDIUM
	RESULTS SET 1	LOW	LOW/MED	LOW/MED	HIGH
	RESULTS SET 2	LOW/MED	MEDIUM	LOW/MED	LOW/MED
FINLAND	EXPECTED	LOW/MED	MEDIUM	LOW/MED	MEDIUM
	RESULTS SET 1	MEDIUM	LOW/MED	MEDIUM	MED/ HI
	RESULTS SET 2	LOW/MED	MEDIUM	MEDIUM	MEDIUM
SWEDEN	EXPECTED	LOW/MED	LOW/MED	LOW	MEDIUM
	RESULTS SET 1	LOW/MED	MEDIUM	MEDIUM	MEDIUM
	RESULTS SET 2	LOW	MEDIUM	LOW/MED	MEDIUM
UK	EXPECTED	LOW/MED	LOW/MED	HIGH	MEDIUM
	RESULTS SET 1	LOW	MEDIUM	MEDIUM	MEDIUM
	RESULTS SET 2	LOW/MED	MEDIUM	MEDIUM	MED/ HI

Table 22 - Overview assessment of culture per countries

9.2.1 Cultural differences among managers from different countries

To briefly answer the third research question, it can be concluded that indeed there are differences between target countries, but not as large as those expected, based on Hofstede’s predictions from the 1980’s. Also, as seen in Figure 27, not all managers confirmed their countries’ inclination – especially when it came to masculinity and uncertainty avoidance. In brief, the interviewed infrastructure project managers do tend to think among the same lines in North-Western Europe. Managers from all countries showed low (to medium) Power Distance, medium Uncertainty avoidance, low to medium Masculinity and medium (to high) Long Term Orientation. Country wise, Belgium and UK yielded the largest differences with respect to expectations, whilst Finland and

Sweden's results were more conform to the expectation: there is evidence of a tendency in North-Western Europe towards a more feminine, people-oriented, uncertainty avoidant approach.

Irrespective of their countries of origin, respondents showed a high inclination in selecting certain job aspects - as low power distance. This does not only confirm the low-power distance orientation of the countries, but also managerial characteristics as the inclination to exert authority and make decisions. The most unexpected scores across all countries appeared on the Masculinity dimension. Both masculine and feminine – oriented job aspects were selected by most participants. Managers appear to combine masculine and feminine characteristics, in order to successfully lead projects. Therefore, in the assessment table they were assessed on this dimension as medium. Medium Long term orientation was manifested, as expected – with some inclinations towards the high side. Aspects related to Uncertainty avoidance were seldom selected (low LTO). Finn and Swede managers appeared to be more uncertainty avoidant, whilst Belgians were less so than expected.

As for the fourth research question, the manager's positioning on cultural perspectives was expected to influence mostly criteria concerning relations with authority (criteria 11, 13, 16), with other actors (6, 15, 17, 18) and aspects related to their own organization (1, 3). Achievements relate to user satisfaction or keeping project indicators in order. The analysis confirmed that there are cases in which special preferences on certain cultural aspects coincided with particular rankings on some of these success criteria, as shown in paragraph 7.1.3. However, *this did not apply to all cases, thus links initially between cultural positioning and success assessment cannot always be enforced.*

Country wise conclusions for question set 1 - Finns appreciate as low the influence on success of political factors, and expect in less numbers to have a say in important decisions (high PD), because the go-decisions were taken prior to their involvement. Danes highly appreciated learning new skills (LTO), and that was reflected in their comparatively higher rankings on criteria related to learning opportunities (8) and growth and development (9). They are also less bent on achievement (MAS), and seek the sufficient, not the best, quality. Swedes seek clear procedures and rules, whilst appreciating safety and following the right process as more important success criteria. They focus on the business network, prioritizing needs of influent actors (politics, shareholders). Brits and Belgians showed masculinity in valuing an achievement oriented job, but disagreed on what achievement means: the first seek quality and user satisfaction, the latter – political support for their project. Although all managers selected aspects influencing relations with other actors, in the ranking of criteria, actor needs were not prioritized over health indicators for the project.

Country wise conclusions for question set 2 -Set - particular agreement levels can be synthesized as follows: Belgians agreed to have a more decentralized organization, on not necessarily wanting to continue with the current job, and with appreciating common sense, rather than rules. Danish managers perceived their organizations as more centralized, and worry more about their organization's image. Finns appreciate individuals alongside team efforts, and process failure internally rather than worrying about their public image. Swedish managers are keen on entrusting tasks to team members, value more trust in common sense over rules and less flexibility for future needs in scope definition. Brits also perceive their organizations as centralized, are more prone to switch jobs, prefer in higher numbers less scope definition, distrust common sense and are less inclined to argue with contractors.

9.2.2 Cultural differences among different perspectives

There were a number of job aspects on set 1 of questions that were selected by almost all managers, irrelevant of the country, whilst others were barely chosen. This shows that there are cultural peculiarities in the aspects mentioned, which are not nation-wise, but specific to managers. There are some cultural aspects that managers loading on different perspectives appreciate differently, and that there is *some* cultural bias that influences managers on their Q-sort rankings. These cultural differences add more definition to the characteristics of each perspective, and can facilitate understanding in projects combining multiple nationalities, as depicted in paragraph 7.4.2.

9.3 Conclusions on Comparison with Dutch perspectives

Section 9.3. relates to the last sub-question: *How do these perspectives compare to the Dutch public managers' perspectives on project success?* The results of the research - the international perspectives on project success - were compared to Van Loenhout's findings at a national level. We cannot state that there is a perfect match between any pair of European - Dutch perspectives. P1 EU and P1 NL appear similar at first glance, but there are also differences as a stronger importance given by Dutch managers to human factors surrounding the project environment. There is more similarity on these aspects between the Dutch P1 and the EU P3, who value stakeholders, contractors and the overall process more. We can state that The Dutch Holistic Perspective 1 combines aspects of both the Process-oriented European Perspective 3, and the Product-oriented European Perspective 1. Indeed, for a holistic approach, it is necessary to follow both directions in parallel. The downside is that there is less emphasis on keeping to the iron triangle indicators, and on investing in good relations with contracting partners.

As for the European Perspective 2, it includes rankings similar to the Dutch P2 at the top of the scale, and partly to the Dutch P3 at the bottom of it. European P2 managers do not appear to be so biased by external inputs as their Dutch P2 counterparts, but neither are they so "dominated" by the political factors in their project as the Dutch P3. EU P2 managers lead projects that pend on political good will, but whose managers have – unlike P2 NL, clearer priorities, and unlike P3 NL, seek more actor involvement. They are socially aware, flexible leaders, and they get involved actively in the decision-making process for their project.

When all 68 available Q-sorts are input for the analysis, four "new" mixed overall perspectives arise. These overall perspectives confirm the similarities and differences identified in the previous paralleling process. The orientations presented in the mix perspectives show that there are European perspectives valid overall (P1 Mix and P4 Mix), as well as peculiar approaches to success, typical for the Netherlands (P2 Mix and P3 Mix). These may be due to the organizational level of the manager, or to particular situations in the Dutch construction industry (lack of trust in contractors due to Bouwfraude) or to cultural aspects (Polder model, stronger influence of stakeholders and users in infrastructure projects). Therefore, Dutch consultants and contractors interested in undertaking projects abroad should expect (but for highly politicized projects) analytical approaches on success of their public partners, than in their home country.

10

Discussion and recommendations

This final chapter is meant to give a critical overview of the methodology used and the findings obtained. Based on these and on observations made during the research process, recommendations for further research are suggested.

10.1 Discussion - Research limitations

This paragraph will give a brief overview of the critical discussions on current findings.

10.1.1 Assessment of Q-methodology and results

Contacting managers on locations abroad, and scheduling and organizing the travel to meet as many managers as possible in person was a project in its own. Given the tight time frame, opportunity in selecting participants was always a factor. There was a limited number of initial contacts and final respondents that could be acquired. Some of the respondents proved to be, during the interviews, incompatible with P-set requirements and had to be left out of the final analysis.

Respondents were asked to evaluate the success criteria and definitions presented for sorting, and to suggest additions to the list if they considered it appropriate. The great majority of managers showed themselves satisfied with the presented criteria list, considered it extensive enough and did not feel the need to add any new criteria. There were a few of managers who made observation regarding the interpretation of the first success criteria - continuation of client organization, but at the end, they declared themselves satisfied with the broad definitions at hand. It is worth considering the reformulation of the criteria above into “continuity of members of the project team”.

During both online and in person interviews, it was clear that all managers carefully processed the q-sort, and some even tried to synthesize the essence behind the success criteria chosen. Some criteria were, according to them, preconditions for the delivery process, some were actual success indicators, and lastly, some criteria expressed side-effects, not success goals in their own.

Regarding the reliability of the research, it has to be mentioned that the interpretation of the results, is based on the knowledge and experience of the researcher. Insight gained during the interview process was crucial for defining the narratives. Feedback on the narratives ensured a check on interpretation, adding validity and minimizing the researcher’s bias. If the data were to be analysed by another person, it would yield the same scores and to a large extent the same outcomes.

Regarding the parallels made between the European perspectives devised by this study, and the Dutch perspectives derived in earlier research, it cannot be stated that the perspectives are a perfect match between any pair of perspectives, thus the process revealed more differences than similarities between perspectives. A discussion point would be the much smaller budget range Dutch projects cover and the larger variation in levels of the organization where the managers were employed. The projects analysed in the current study, even if executed locally, are often of interest and impact at a national level. This implies that the European managers interviewed operate often at a higher level, and deal with stakeholders differently than in the Dutch case, thus the differences

in Q-sorts. The interviews in the Netherlands were conducted in Dutch by a conational, and there was less chance for bias in responses, and more openness with regard to how much the politics and stakeholders influenced their project.

10.1.2 Assessment of cultural analysis and results

For assessment purposes, Hofstede's original questionnaire was not used, thus scores are not directly comparable. The manager's preferences often appeared to be not according to the expectation. Individual responses on relationships between items differ from societal averages. Inferences on cultural aspects, based on individual surveys, are often subject to controversy. For further research, it is advisable to apply additionally the original questionnaire on cultural dimensions, if there is a greater interest in scores concordance.

The content of the questions was derived from Hofstede's descriptions on his cultural dimensions, using aspects that can relate to success criteria in a project, and were reviewed by the committee, and pre-tested. They were, however, not used on prior large-scale studies, and their accuracy and weight in defining the subject's position on the cultural dimensions, as well as their intuitive link with success criteria, is subject to discussion. The answers to certain questions were acknowledged by respondents as highly circumstantial, relating to their current project used for Q-sort. Perhaps questions regarding a more general direction per country would get less context bias.

Language wise, it cannot be excluded that bias might arise due to inconsistencies between English and the respondent's native language. Answering questions in a foreign language might have led to more moderate answer. Respondents are likely to give more positive presentations of themselves or their society to a foreigner (the issue of social desirability).

The size of the respondent's lot is limited and it is difficult to validate inferences based on such a small number of respondents. Overall, it can be underlined that the low number of respondents (40) is not sufficient to perform proper statistical cultural analysis, therefore insight at a more personal level was given, without the purpose of generalising the observations, but adding value to the perspectives derived from the Q-sort.

P-set wise, it was aimed for proportionality among the number of respondents from each country; To accurately represent Belgium on the cultural scale, respondents from both Flanders and Wallonia would have been ideal, but due to opportunity factors, it was not feasible. As in the Dutch case, the aim was to include similar ratios of male and female respondents. It was expected to come across more female managers in feminine countries (DK, FI, SWE). However, be it to opportunity factor or to actual proportion of female managers in the construction industry, at the end just 5 of the initial set of 50 respondents were women. Furthermore, the countries targeted have a quite similar cultural basis, so there were not so many differences to identify, that could point out to sharper conclusions.

10.2 Recommendations for further research

This study came as an extension to a previous research conducted in the Netherlands, and it can provide basis for further research. The following paragraph presents recommendations for further study directions:

Broaden the spectrum of countries covered: Since this research focused on countries from Northern and Western Europe, which have quite similar cultural basis, It would be advisable to take managers from countries whose cultures have less similarities to the existent set, as future targets. Countries in Southern and Eastern Europe are possible directions. The target could be further expanded to other worldwide developing areas of interest for contractors and consultants: Africa, Americas, Australia, Middle East and South-East Asia.

Broaden the number of respondents: in order to have more validity of results, a larger number of managers can be targeted during subsequent research – at least when it comes to cultural aspects, since Q-methodology can do with smaller numbers of respondent. One option to have a larger reach would be to perform the research online, using Skype or Lync and the new developed Excel tool, which has proved its validity.

It was identified that managers involved in the projects at other levels or in other functions (liaison manager/ tactical operations, project sponsor/ defining and keeping to scope, asset manager/ administrating product after delivery) manifest different views than managers involved in operational execution. Therefore, it would be interesting to *assess opinions of these other categories of public stakeholders that have influence on projects*.

During this research, it was mentioned that respondent's views on project success are phase-dependent – thus an input would be to *select projects within the same phase*, and check if there is a change in appraisal if we take just projects in execution, in front end development phase, or already completed. Also, the size of the projects may affect the sorting, thus limiting this parameter may be another option.

Follow-up of this research is recommended after the project's completion, to see if the project actually became a success, and if this was related to the focus on the success criteria mentioned by the managers. Also, it can be *assessed if the managers practice what they preach*, and show a consistent approach towards pursuing the criteria they specified throughout the whole process.

Last but not least, *cultural questions could be refined* to capture more accurately their influence on differences in visions on project success. To check positioning on cultural dimensions, it would be optimal to use pre-validated questionnaires, supplemented by questions relating to project success and culture, or to input more time into developing assessment tools that have a link between criteria ranking and cultural characteristics.

10.3 Final thought – towards European collaboration

It would be interesting for the construction market to add, as a final remark, that interest towards international collaboration was manifested several times during the interviews. Swedish and British managers mentioned that they were keen on competitive international tendering and working with external parties. This was either because they needed specific expertise or because, due to their projects scale, they were too dependent on national companies who had monopoly and forced prices up. Finnish managers mentioned they were already collaborating with partners, particularly from other Scandinavian countries. Danish and Belgian managers mentioned more collaboration within Europe, with partners from neighbouring countries like Germany, France and the Netherlands.

It is encouraging for the construction industry, to know that the efforts towards competitive tenders are paying up and that public clients are more and more interested in working with international contractors and consultants. The three perspectives derived in this exploratory research were not country-specific – it can be said that public managers take similar approaches to achieve project success, irrespective of location. People in the business environment are moving in the same direction, and this eases understanding and collaboration between countries. Private parties should bank on their expert knowledge and capabilities, and enhance communication and goal-sharing with their clients, in order to establish themselves on the European market. The results and implications yielded by this research are a theoretical basis, and the methodology used – a communication tool for understanding public partners in European contexts and for improving working relationships. Furthermore, for learning purposes, it would be a good idea to a project database with the initial approaches towards success - and the follow up on if and how did they materialize in successful projects.

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Appendix

Appendix A: Glossary (as per van Loenhout and Hofstede)

Centroid	Method of extracting factors from the raw data of the Q-sorts. It is the method used most frequently in Q-methodology and the one used in this research.
Centroid method	Method of extracting factors from the raw data of the Q-sorts. It is the method used most frequently in Q-methodology and the one used in this research.
Concourse	The total set of statements about a given subject, the researcher draws a sample from this concourse to investigate.
Condition of instruction	The rule by which the respondents are supposed to rank the statements. In this case the respondents were asked to rank the criteria from their point of view as operational client.
Confounder	A person whose Q-sort is loaded on more than one factor.
Correlation matrix	N x N matrix, where N are the number of Q-sorts (perspectives) used in the research. In this matrix the correlation of each individual Q-sort with each of the other Q-sorts is calculated. It represents the degree of similarity or dissimilarity between each of the Q-sorts.
Culture	Is the collective programming of the mind that distinguishes members of one group or category of people from another (Hofstede, 2001).
Cultural Dimension	Paradigm founded by Hofstede in the 1980's, based on a large empirical study via a questionnaire, performed on IBM employees from 50 countries.
Factor	Cluster of correlations between Q-sorts: mathematical representation of common viewpoints, shared by all those Q-sorts that load significantly on that factor.
Factor array	Composite Q-sort: from the scores of each statement for a factor the Qsort belonging to that factor is constructed; the scores of the statements are reconverted to scores of -3 to +3.
Factor loading	The correlation of a specific Q-sort with a certain factor.
Factor score	The score given to a statement within that factor; it is a weighted average of all scores given to that statement in the individual Q-sorts that make up the factor.
Humphrey's Rule	Criterion that needs to be met before accepting a factor with at least

	two significant loadings. The cross-product of the two highest loadings (ignoring signs) should exceed twice the standard error.
Long term orientation	stands for a society which fosters virtues oriented towards future rewards, in particular adaptation, perseverance and thrift. Short Term orientation stands for a society which fosters virtues related to the past and present, in particular respect for tradition, preservation of “face”, and fulfilling social obligations.
Masculinity	is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life. The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented.”
Method of expression	Type of measure of subjectivity. The researcher is looking for the external point of view of the respondent: the context surrounding the answers of the respondent are of no real interest. The scale and weight have been assigned by the researcher.
Method of impression	Type of measure of subjectivity. The researcher is looking for the internal frame of reference of the respondent. The scale and weight are determined by the respondent and the context surrounding his answers are of great interest to the researcher.
Non-loader	A person whose Q-sort is not significantly loaded on any factor.
P-set	The sample of persons used for the research: the respondents.
Power distance	Is a cultural dimension that expresses how a society handles inequalities among people. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place which needs no further justification. In societies with low power distance, people strive to equalise the distribution of power and demand justification for inequalities of power.
PQMethod	Software programme developed for the statistical analysis of Q-studies. In this research version 2.35 with PQROT 2.0, May 2014, was used. The programme can be downloaded through: http://schmolck.org/qmethod/

Q-sample (or Q-set)	A subset taken from the concourse, this sample of statements that is used in the sorting procedure.
Q-sort	The basic tool of Q-methodology: the ranking of the statements in the ranking sheet. Through this process the respondent gives his subjective viewpoint on the statements that make up the Q-sample.
Ranking sheet	The scale and distribution sheet used for the ranking of the statements. The number of places on the ranking sheet corresponds with the number of statements to be ranked.
Rotated factor	The factor that is achieved after the rotation process has completed: the final factor; in which the relationships between the Q-sorts have been clarified.
Rotation	The factors that are extracted by means of the centroid factor analysis are rotated as to come to the final set of factors. the coordinate system represented by the factors is rotated and new factors are formed, in order to increase the loading of each of the Q-sorts on the factor. The rotation process does not alter the raw data, but changes the perspective by which the researcher looks at it.
Statement	Since Q-methodology is usually used to rank subjective statements on a subject, the items to be ranked are referred to as 'statements', though in this case it are not statements, but success criteria that are to be ranked.
Success criterion	A set of measures by which project success is judged.
Success factor	An aspect that directly or indirectly influences the project success.
Uncertainty Avoidance	expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.
Un-rotated factor	The factors that are first extracted from the correlation matrix by means of the centroid method (centroids); they have not yet been rotated to improve the loadings.
Variable	In Q-methodology the variables are the n persons that have provided their perspective, which is presented by their completed Q-sort. In this case there are 50 variables.

Table 23 – Glossary of terms, partly taken from van Loenhout

Appendix B: Project success criteria derived by Van Loenhout

No.	Criteria	Definition
1	<i>Continuation of client organisation</i>	The project contributes to the continuation of the client organisation and to achieving the organisation's goals.
2	<i>Delivered on time</i>	The total duration of the project does not exceed the planned duration.
3	<i>Effect on the professional image of client organisation</i>	The project has a positive effect on the professional image and reputation of the client organisation.
4	<i>Efficient use of the available resources</i>	The resources (capital, labour, materials) allocated to the project, are used in the most cost-efficient and time-efficient manner.
5	<i>Fit for purpose</i>	The project forms the best solution for the problem for which it was initiated; it is the best choice given the different alternatives.
6	<i>Good working relationship with contracting partners</i>	The working relationship with the contracting partners is good; there are no conflicts or disputes.
7	<i>Impact on the environment, sustainability</i>	Within the project the effects of construction activities on the environment are taken into consideration.
8	<i>Learning opportunities for client organisation</i>	The client organisation learns from this project (e.g. acquiring new knowledge, new experiences, getting familiar with new technologies) and this knowledge will be applied in subsequent projects to improve the performance of the organisation.
9	<i>Personal growth and development</i>	You are able to professionally and personally develop yourself further through the experience of this project.
10	<i>Profitability for contractor</i>	The contractor is able to profitably execute its part of the project
11	<i>Project specific political or social factors</i>	The project contributes to specific political ambitions or the solving of specific social problems.
12	<i>Quality</i>	<i>The project meets the technical requirements that were determined beforehand; it performs as it is supposed to perform and meets a presupposed standard of quality.</i>
13	<i>Right process is followed</i>	The right process is followed throughout the project to deliver an optimal end product.
14	<i>Safety</i>	Within the project attention is paid to a safe design and the prevention of accidents during execution, the use and

the maintenance.

15	<i>Satisfies needs of project team</i>	The employees of your project team are able to achieve their personal goals and there is a good work atmosphere.
16	<i>Satisfies needs of shareholders</i>	The shareholders are the co-financers of the project, but they are not the commissioning party. They have interests in the project, which they are able to promote.
17	<i>Satisfies needs of stakeholders</i>	The stakeholders of the project are defined as those people and/or organisations that have an interest in the environment, performance and/or outcome of the project; they are not directly involved in the project, but they do have strong influence (e.g. environmental organisations, civilians, governmental organisations). These stakeholders have a specific interest and they are able to promote this interest in the project.
18	<i>Satisfies needs of users</i>	The end users are satisfied with the final functionality of the project.
19	<i>Within budget</i>	The total costs do not exceed the original budget.

Table 24 - Project success criteria derived by van Loenhout

Appendix C: Interview protocol used during data gathering

Introduction

- Explanation about myself and the research - Research into the success criteria used by the public project manager to determine his project success – NL and EU – NETLIPSE.
- Agreements on confidentiality, recording of the interview, review

Questions relating to the public project manager

- Function, organisation Do they freelance?
- Years of experience in this role, previous working experience (Did he/she always work for the government, or private party as well?).
- Educational background – civil engineer and/or other?

Questions relating to the project

- Project name & Location
- In what phase is the project right now? (Initiative, planning, tendering, execution, completed)
- In which phases of the project was he/she involved? (Initiative, planning, design, realisation)

Size of the project:

- Number of employees on the project team of the public project manager
- What is the realisation budget? Is this the budget for which he/she is responsible? If not, what is? (To determine the responsibility of the public project manager within the project)

Questions relating to the client and political aspects

- Continuous or incidental client? (If continuous: several projects at once, or only one.
- If incidental: how much experience, how many projects has he/she executed?)
- Who is his/her internal client? Who is politically responsible for the project?
- Does he/she have direct contact with the politician responsible? If so, in what way? What is the nature of this contact? (Is the project manager being guided by the politician: is the nature of communication informing or is he/she being steered in a direction?)

Questions relating to the project complexity

Complexity of the project (distinction after: Bosch-Rekvelde 2011) - (low/medium/high)

To be judged from his/her own point of view, it is subjective

o How does he/she judge the external complexity of the project?

External complexity relates to: number of external stakeholders with distinct perspectives, dependence of project on these stakeholders, political influence, political stability.

o How does he/she judge the organisational complexity of the project?

Organisational complexity relates to: possible lack of resources and experience, number of interfaces between disciplines, number of contracts, nationalities, possible lack of trust in project team or contractor.

o How does he/she judge the technical complexity of the project?

Technical complexity relates to: differences in project objectives, uncertainties or indistinctness in project goals, long execution period, large variety in tasks, strict quality requirements, many different technical disciplines, technical risks.

Q-sort explanation

Background information on project success

- Project success: Originally only iron triangle for determination project success.
- Growing awareness of other possible criteria, like e.g. sustainability and stakeholder satisfaction. Therefore, we have compiled from literature a list of 19 criteria reflecting determinants for project success, that you will have to rate for the case of your current project

Introduction on Q-methodology

- Q-methodology is a method of studying subjectivity; by means of relatively ranking a number of elements. It is supposed to be conducted from his/her point of view as public project manager – there is no right or wrong answer, but personal opinions and beliefs.
- In this study it is about the perspective of the public project manager on the ranking of success criteria that determine his/her project success. Of course there are a number of criteria that play a role, but it is not possible to focus on all criteria at once: it is about the trade-off that is made in case of alterations or problems.

Execution of Q-sort

- Present the respondent with list of criteria and definitions (Q-sample). Make sure it is read well and the definitions and criteria are fully understood.

Step 1-Please read each statement printed on the 19 cards, one by one. Each time you read a statement, try to complete the sentence: *“With the discussed project in mind, how important are the following criteria in determining this project’s success?”*

Step 2- Please divide the cards with criteria into three piles:

- MOST important criteria
- LEAST important criteria
- AVERAGE (remainder of the cards)

Step 3 – Please take the cards from the MOST important box and read them again. Select the 1 card you consider THE most important for success in your project, and place it on the ranking sheet at -3. Select the next two most important criteria and place them at +2. Continue at +1 with the remaining cards from the first pile.

Step 4 – Please take the cards from the LEAST important box and read them again. Select the 1 card you consider THE least important for success in your project, and place it on the ranking sheet at -3. Select the next two most important criteria and place them at -2. Continue at -1 with the remaining cards from the first pile.

Step 5 – rank the average importance cards in the middle of the ranking sheet. Reshuffle if necessary.
- Pay attention to and ask about considerations, doubts and remarks during Q-sort

Interview on Q-sort

- What were the considerations behind the most and least important criteria? How the criterion is viewed, what is the background on this criterion? (E.g.: if time is important, why? Are there subsidies that may expire or is there a specific deadline related to an event? Relating to the criteria political/social factors: what factors/problems are these? Mainly political, mainly social or both?) Focus firstly on the top 3 most and least important criteria to clarify the thoughts on these criteria. How does he/she influence these criteria from his/her role?

+3 criterion is the most important for project success because...

+2 criteria are quite important for project success because...

-2 criteria are of low importance because...

-3 criterion is the least important for project success because...

-There are a number of criteria that (seemingly) cannot be influenced from his/her role or the phase in which most projects are: e.g. fit for purpose, which is determined in the planning phase, which has already passed in most projects. Is the manager aware of this?

Or does he/she influence the criterion in another way?

- Did you miss any criteria in the list?

- Were the definitions clear?

Questions on cultural aspects – see next page

Closing

Thank you for this interview, you will be informed of the results. Ask if they want to review.

Question sets on cultural aspects :

Culture set 1: Job aspects - please select 8 out of 16 that are essential for you!	
1	Pleasant, cooperative atmosphere among co-workers
2	Job security; Steadiness and stability
3	Having a say in important decisions
4	A responsible job, where perseverance is valued
5	Challenge and recognition
6	Tolerance for ambiguity and chaos
7	Respect for status
8	Network that varies with business needs
9	A useful job for society and environment
10	Clear procedures and rules
11	More supervisory personnel
12	Reward by abilities
13	A job in which you can achieve something
14	Appreciation for generalists and common sense in decision making
15	Opportunity to use initiative
16	Learning new skills, adaptive

Table 25 - Cultural questions set 1

Cultural set 2: Choose your level of agreement with the following statements:

(4 Strongly agree/ 3 agree/2 disagree/ 1 strongly disagree/ 0 no opinion)

"I am working in a centralized organization, with several supervision levels."

"When delegating a task to the project team, a good manager does not need to supervise all the details –he can rely on his subordinates."

"Last time I did not agree with the management level above me, within this project, I expressed my disagreement and presented them the issues."

"After this project, I wish to continue my career within this organization."

"A great level of detail should be used in the project scope definition before tendering the contract."

"In the project's context, NO rules are necessary for what can be dealt with by common sense."

"Last time I was facing a decision for this project, I strived for consensus in the group, rather than make the decision only by myself."

"In my project, the appreciation of excellence is on individual basis rather than team achievement."

"I choose to be decisive in case of a conflict, rather than negotiate."

"When I have difficulties in accomplishing project promises, I worry more about the effect on our image as professionals, than feeling ashamed of not performing"

"To adapt to future needs and circumstances, we have embedded flexibility in scope."

"Considering a high pressure situation, in order to achieve the required project goals I am prepared to jeopardize my relationship with the contractor. "

Table 26 - cultural questions set 2

[illegible]

Appendix C': Excel framework for online interview

Thank you for agreeing on participating in this short questionnaire on project success.

Please remember to save the file before exit. Thank you for your time.

xi | Perspectives on project success

Step 1: you need to mention how important do you consider every one of the 19 success criteria enlisted and defined below. Please type in the rightmost column M for most important, N for neutral, and L for least important in achieving success in your project.

Step 1: Please Write M = Most important, N = Neutral or L = Least important on the dark blue boxes. Please go to Step 2

Do you consider following criteria decisive for project success?

No.	Criteria	Definition	M/N/L
1	Continuation of client organisation	The project contributes to the continuation of the client organisation and to achieving the organisation's goals.	M
2	Delivered on time	The total duration of the project does not exceed the planned duration.	M
3	Effect on the professional image of client organisation	The project has a positive effect on the professional image and reputation of the client organisation.	M
4	Efficient use of the available resources	The resources (capital, labour, materials) allocated to the project, are used in the most cost-efficient and time-efficient manner.	M

Figure 28 - Excel Q-sort tool - step 1

Step 2: you need to select (by typing X) the criteria you most agree with and the one you most disagree with on the two rightmost columns.

Step 2: Please type an X on the ONE you consider MOST important and the ONE you consider LEAST

Which criteria is the most and which the least decisive for project success?

No.	Least important	Neutral	Most important	Most Disagree	Most Agree
1			Continuation of client organisation		
2			Delivered on time		
3			Effect on the professional image of client organisation		
4			Efficient use of the available resources		
5			Fit for purpose		
6			Good working relationship with contracting partners		
7			Impact on the environment, sustainability		
8		Learning opportunities for client organisation			
9		Personal growth and development			
10		Profitability for contractor			
11			Project specific political or social factors		
12			Quality		
13	Right process is followed			X	
14			Safety		X
15		Satisfies needs of project team			
16		Satisfies needs of shareholders			
17		Satisfies needs of stakeholders			
18			Satisfies needs of users		
19			Within budget		

Figure 29 - Excel Q-sort tool - step 2

Step 3: you have the whole criteria written down in boxes, and you should drag and place them in the ranking chart to the right of the screen, according to your own personal view and approach, with regard to the project in cause. The pyramidal structure in the format is compulsory, so kindly consider the options and rank them in the order you consider them more important to the success of your project.

Step 3: Please drag and drop the boxes

No	Criteria	Box
1	Continuation of client organisation	
2	Delivered on time	
3	Effect on the professional image of client organisation	
4	Efficient use of the available resources	
5	Fit for purpose	
6	Good working relationship with contracting partners	
7	Impact on the environment, sustainability	

Less important success criteria				Most important success criteria			
-3	-2	-1	0	1	2	3	
Right process is followed	5 - Fit for purpose	10 - Profitability for contractor	4 - Efficient use of resources	12 - Quality	2 - Delivered on time	Safety	
	1 - Continuation of client organisation	9 - Personal growth and development	16 - Satisfies needs of shareholders	7 - Impact on the environment	19 - Within budget		
		8 - Learning opportunities	15 - Satisfies needs of project team	18 - Satisfies needs of users			
		3 - Effect on the professional image	6 - Good working relationship	17 - Satisfies needs of stakeholders			
			11 - Project specific political/social factors				

13 - Right process is followed

14 - Safety

Figure 30 - Excel Q-sort tool - step 3

Step 4: finally, you need to briefly describe, based on your project, why you disagree and why you agree most with the firstly selected criteria. Please add any other comment you consider relevant.”

Step 4: Please answer briefly these two questions by filling in the textboxes below

1 - Why is the LEAST important criterion:

Right process is followed ?

whilst it is important to have good processes and procedures a good programme

2 - Why is the MOST important criterion:

Safety first - it is the most important in Networkrail; everyday, everybody home safe.

Safety ?

Any other comment?

Definition

The right process is followed throughout the project to deliver an optimal end product.

Definition

Within the project attention is paid to a safe design and the prevention of accidents during execution, the use and the maintenance.

Figure 31 - Excel Q-sort tool - step 4

Closing: the respondent is reminded to send the results to the researcher’s email.

Thank you for your time to participate on this research.

Closing

The 4 statements are now ranked and your ranking is explained.

Step 1 Please type M , N or L in all the blue boxes.

Step 2 Please type X only once per column.

Step 3 Drag and drop the boxes according to how important you consider the criteria

Step 4 Please answer briefly 2 questions.

Step 5 Please save your outcomes and sent it to r.l.coman@student.tudelft.nl

Thank you for your time.

Figure 32 - Excel Q-sort tool - step 5

Appendix D: Q-sorts on project success, as conducted by the public managers

Table 27 - Q-sorts as conducted by the public managers

	rank	-3	-2	-2	-1	-1	-1	-1	0	0	0	0	0	1	1	1	1	2	2	3
persp	Code																			
2	B01	1	7	10	3	4	8	17	9	12	13	14	16	5	11	15	18	6	19	2
1	B02	16	8	11	1	3	4	15	5	9	10	13	14	6	7	12	19	2	18	17
3	B03	9	3	8	6	10	13	15	2	4	7	14	16	1	5	12	19	11	18	17
3	B04	9	8	15	1	4	6	17	3	7	10	16	18	11	12	13	19	2	14	5
3	B05	9	1	10	3	4	6	8	7	13	14	15	19	5	11	12	17	2	16	18
2	B06	1	8	9	3	4	10	15	6	12	13	16	17	7	11	14	18	2	5	19
2	B07	8	1	9	3	4	5	15	6	7	10	14	18	2	13	17	19	12	16	11
1	B08	11	1	7	8	9	13	17	3	5	15	16	18	4	6	10	14	12	19	2
3	B09	9	8	13	6	7	10	11	1	3	4	15	19	2	16	17	18	12	14	5
1	D1	11	10	13	4	5	15	16	1	3	6	7	9	2	12	17	19	8	14	18
2	D2	9	4	10	6	11	13	15	1	5	8	12	18	7	14	17	19	2	3	16
1	D3	10	16	18	1	4	8	15	3	5	6	11	13	7	9	12	17	2	14	19
2	D4	13	1	3	4	8	9	15	7	10	12	17	18	5	6	14	19	2	11	16
2	D5	9	1	10	6	12	14	18	3	4	5	8	15	7	11	13	17	16	19	2
1	D6	10	11	16	1	3	8	13	6	7	9	15	17	2	4	12	18	5	19	14
2	D7	10	1	5	3	4	9	13	7	8	12	14	15	6	11	17	18	16	19	2
1	D8	10	11	13	3	8	9	17	4	5	6	7	18	1	14	15	16	12	19	2
1	D9	16	15	17	10	11	18	9	5	6	7	14	12	3	4	8	13	1	19	2
1	D10	1	11	10	3	8	13	14	4	6	7	9	16	15	17	18	19	2	12	5
1	F01	16	7	9	1	3	8	15	4	5	10	11	13	2	6	14	17	12	19	18
2	F02	5	10	19	9	15	4	18	7	1	8	11	13	3	6	14	12	16	17	2
1	F03	16	1	11	5	8	13	3	10	9	18	7	17	4	6	14	2	15	12	19
1	F04	9	11	3	1	8	13	10	5	17	4	6	15	16	18	7	19	2	12	14
1	F05	16	9	11	1	13	10	17	8	4	6	15	7	3	5	2	14	19	12	18
1	F06	17	11	8	16	1	13	15	4	6	7	3	5	9	10	2	12	19	18	14
1	F07	16	11	3	8	1	9	10	17	15	4	6	5	13	7	2	18	12	19	14
1	F08	11	8	6	9	10	17	15	16	1	4	5	13	3	7	2	12	18	14	19
3	F09	10	6	1	9	15	16	3	8	17	4	2	19	11	5	13	7	12	14	18
1	F10	9	3	11	10	1	8	13	15	16	17	5	18	6	7	12	14	2	19	4
1	S01	16	9	8	3	15	18	5	1	4	11	12	17	6	19	7	13	10	14	2
1	S02	15	11	8	7	16	18	4	1	17	14	9	10	3	5	6	12	2	19	13
2	S03	9	10	1	15	8	6	4	5	3	14	12	7	17	16	18	13	2	11	19
2	S04	9	3	1	10	7	6	15	8	17	18	12	5	14	11	4	13	2	16	19
3	S05	13	10	1	15	9	3	8	17	12	6	11	7	16	18	4	2	5	19	14
1	S06	9	5	1	2	16	4	10	13	18	11	8	3	6	7	15	17	12	19	14
3	S07	13	1	3	9	15	11	18	10	6	8	4	17	19	2	7	16	5	12	14
1	S08	3	10	8	1	13	9	11	4	7	17	16	15	14	6	18	5	2	12	19
1	S09	9	8	13	10	11	16	18	1	5	4	15	3	7	17	6	19	12	2	14
3	S10	9	10	1	16	8	17	11	6	2	15	13	3	18	14	12	7	19	4	5
1	S11	13	16	17	4	11	15	9	3	7	8	10	19	5	6	18	1	12	14	2
3	UK01	6	15	8	9	13	17	10	12	16	1	2	4	14	19	7	18	5	3	11
1	UK02	13	5	1	10	9	8	3	4	16	15	6	11	12	7	18	17	2	19	14
3	UK03	2	13	9	16	19	17	6	3	4	18	8	12	7	10	11	15	5	14	1
1	UK04	1	13	11	8	5	17	3	18	9	7	4	10	2	6	16	15	19	2	14
1	UK05	13	3	8	9	7	16	11	10	15	4	6	5	19	17	1	18	2	12	14
3	UK06	3	13	8	11	15	1	9	4	17	10	6	7	14	2	12	16	5	19	18
1	UK07	9	8	1	15	13	11	16	4	7	10	3	6	2	5	12	17	19	18	14
3	UK08	13	15	9	8	6	4	10	3	16	11	1	7	14	2	12	19	17	5	18
3	UK09	15	13	7	1	10	9	4	3	11	8	6	5	16	17	18	19	12	2	14
1	UK10	1	11	16	3	8	15	9	17	7	13	10	4	5	2	19	6	14	12	18

Appendix E: Characteristics of the P-set of respondents

Code	Perspective	Organization & Function	City/ Zone	Educational Background:		Previous work experience	Project type	Budget	Contract (in mln€)	People in team
				CE	Extra or different					
B01	no	BAM - PM	Antwerpen	y	n	Public	rail	DBFM	50 to 100	15 + cons
B02	3	De Scheepvaart PM	Hasselt	y		Public	bridge		10 to 50	15 + cons
B03	no	BAM - Liaison manager	Antwerpen	y		Public	road	D&B	> 2 bln	30 + 70 cons
B04	2	Flemish Government PM	Gent	y	Army	Public / Army	road	DBM + F / PPP	50 to 100	3 + cons
B05	2	BAM - Project engineer/ PM	Antwerpen	y	n	Both	road	Eng & Build	10 to 50	5+ cons at ROTS
B06	2	BAM - PM	Antwerpen	y	n	Both	road	Eng& Build; 6 contracts	> 2 bln	37 + 150 total
B07	2	BAM – Project Director	Antwerpen	y		Both	road	Eng & Build; concession	> 2 bln	30 + 40 cons
B08	no	TUCRail - Line manager	Brussels	y		Public	rail	DBFM	500 to 1 bln	5 eng + 30 on site
B09	no	TUCRail Program Manager	Brussels	n	Electrical eng, PM crs.	Both	rail	DBFM	500 to 1 bln	5 + 20 on site
D01	1	Vejdirektoratet PM	Flong	y	n	Public	road	2 x D&B (NL)	100 to 500	15 + cons
D02	2	Vejdirektoratet PM	Flong	y	n	Public	rail + road	D&B	500 to 1 bln	15+ cons
D03	3	Vejdirektoratet PM	Flong	y	n	Public	road	none yet	100 to 500	10 + EN cons
D04	2	Vejdirektoratet PM	Jutlant/ Skandenborg	n	Datomic	Public	road	Bid & Build	50 to 100	40-50 with cons
D05	2	Vejdirektoratet PM	Jutlant/ Skandenborg	y	n	Public	road	B&B old, D&B new	100 to 500	30 + cons
D06	1	Vejdirektoratet PM	Jutlant/ Skandenborg	y	chartered surveyer	Public	road	D&B bridges, B&B other	100 to 500	10 + cons
D07	2	Vejdirektoratet PM	Jutlant/ Skandenborg	y	n	Both	road	B&B and D&B	100 to 500	10 + 30 cons
D08	1	Vejdirektoratet PM	Jutlant/ Skandenborg	y	n	Public	road	B&B	100 to 500	30
D09	no	Vejdirektoratet - Prj. Coordinator	Copenhagen	n	MBA	Both	road	B&B/D&B	100 to 500	2
D10	1	Vejdirektoratet PM	Jutlant/ Skandenborg	y	chartered surveyer	Public	road	D&B bridge B&B land	500 to 1 bln	50 + 50 cons
F01	3	FTA/ ELY keskus Lapland PM	Rovaniemi	y	MsC mng science	Public	road		10 to 50	4 + cons
F02	2	ELY Keskus Uulusimaa PM	Uulusimaa - Helsinki area	y		Public	road	D; B&B + time inc.	< 10	
F03	3	FTA PM	Helsinki area	y		Both, > private	road	D; B&B	100 to 500	
F04	1	FTA PM	Tampere	y		Both	road	D&B alliance	100 to 500	60 - 70
F05	3	FTA PM	Kuopio	y	FISE – PM competency	Public	road		50 to 100	less than 10
F06	1	FTA, Ely keskus Uulusimaa PM	Espoo	y		Public	rail + road	D; B&B	10 to 50	less than 10
F07	3	FTA PM	Helsinki	y		Both	rail	PPP. 10 D, 70 B&B	500 to 1 bln	2 + 20 cons.

F08	1	FTA PM	Vaanta - Helsinki area	y		Both	road	2x B&B	100 to 500	1pm + 5cons + Vaanta
F09	no	Espoo tech center – head of planning street&park	Espoo	n	Landscape architect	Both	road	None- No approval yet	10 to 50	5 + 15 cons;
F10	1	Espoo tech center - CM Execution	Espoo	y	geotechnical engineer	Both	road	B&B	10 to 50	15
S01	3	Trafikverket	Hallandsas	y		Both	rail	D&B - IPT	100 to 500	50 + 15
S02	3	Trafikverket	Sundsvall	y		Both	road	D&B bridge DBO 20 yr	500 to 1 bln	34 + cons, 600 on site
S03	2	Trafikverket	Gothenburg	y		Both	road	16 Design, by now	>2 bln	44 + 200 cons + 600
S04	2	Trafikverket	Gothenburg	y		Both	rail	None - No approval yet	> 1 bln	10 PM + 15 eng
S05	1	Trafikverket	Gothenburg	y		Both	road	D&B	500 to 1 bln	30 + 120 cons + 500
S06	non load	Trafikverket	Solna/ Stockholm	y	degree Constr. Mng.	Both	water	not specified	100 to 500	5 + 10
S07	1	Trafikverket	Solna/ Stockholm	y		Both	rail	8 big contracts	> 1 bln	23 + 100 cons+2000
S08	1	Trafikverket	Solna/ Stockholm	y		Both	rail + road	B&B; D&C detailed	> 1 bln	20PM + 30 cons+1200
S09	1	Trafikverket	Stockholm	y	PHD Rock mechanics	Both	road	B&B, D&B	> 2 bln	40 + 50 cons
S10	1	Trafikverket	Stockholm	y		Both	road	mix	100 to 500	40 + +
S11	1	Trafikverket	Solna/ Stockholm	y		Both	rail + road	D&C	500 to 1 bln	25 full time, + 75
UK01	no	Network Rail - Project sponsor	York	Y	PM evening course	Both	rail	D&B Alliance	100 to 500	2 ,totally 600
UK02	1	Network Rail - Project Director	York	n	chartered mining engineer	Both	rail	D&B Alliance	500 to 1 bln	200 + 400 professional staff
UK03	non load	Network Rail - Project director	Manchester	y	chartered surveyor; MSc in PM	Public	rail	Australian Alliancing Agreement	> 1 bln	50 + 40 cons + 200 operatives
UK04	1	Network Rail - Project Director	Birmingham	Y	chartered surveyor	Both, mostly private	rail station	Design; mix several	500 to 1 bln	160 + 1000 IPT
UK05	1	Network Rail - Project Manager	Reading	y	PM Courses	Public / Army	rail	Design apart; B&B	> 1 bln	
UK06	1	DFT / Network Rail - Project Director	London	n	Chemist	Both	rail	Building contracts	> 10 bln	8 PM + 1500 Nrail + 7000
UK07	1	Network Rail - Project Director	Swindon	y		Public / Army	rail	D&B or D and B&B	> 10 bln	800
UK08	1	Network Rail - Project Director	London	y	Trn quantity surveyor; Lawyer	Both	rail station	Design already in place.	500 to 1 bln	130 + 80 cons + 1000
UK09	no	Network Rail - Route asset mng	Swindon	y	geotechnics & geology	Both, mostly private	rail	D&B or D and B&B	> 1 bln	100 + cons
UK10	3	Network Rail - Project Director	Swindon	n	USA - MBA	Both, mostly private	rail	D&B or D and B&B	> 2 bln	400 + 1200 suppliers

Table 28 - Characteristics respondents - part 1

FTA = Finnish Transport Authority; PM = Project Manager; Cons = consultants;
B&B = Bid and Build contract; D&B = Desing and Build contract;

Code	perspective	Project Complexity			Involved in design	Phase (* = awaits decision; **=political)	(expected) completion	Client	Contact with politicians	politically sensitive	Project level: L=local, N=national
		External	Organizational	Technical							
B01	no	high	high	low/medium	y	completed	2012 M 35yr	gov city	n	n	L
B02	3	medium/high	medium	high	n	completed	2011	gov	y	y	L
B03	no	v high	medium	v high	y	detailed design *	(2016 -) 2022	gov city stk	y	y	L
B04	2	medium/high	high PPP	medium	y	completed	Apr2014 M 30yr	gov city stk	y	n	N
B05	2	medium	medium	low/medium	y	pre-design, wait for decision, preparing tenders		gov city	n	y/n	L
B06	2	high	high	high	y	pre-design, preparing permits *	(2016 -) 2022	gov city stk	n	y	N
B07	2	high	high	high	y	pre-design, wait for decision, preparing tenders*	(2016 -) 2022	gov city stk	y	y	N
B08	no	low/ medium	medium/high ppp	high TBM	n	completed	dec 2012	gov	n	n	L
B09	no	low	medium/high ppp	high TBM, interfaces		completed	dec 2012	gov	n	n	L
D01	1	low/ medium	med/high D&B	low/medium	n	execution	sep-15	gov	y	y	L
D02	2	high all authorities	high overlap D&B	high 4km bridge	y	pre-design, wait for decision*	from 2016 to 2019-21	gov	n	y	N
D03	3	high natura 2000	medium interface	medium/high - bridge	y	pre-design, wait for decision*	2019	gov	y-	y	L
D04	2	medium just 1 city	med/high team spread	high - extension	n	completed**	may-14	gov	y	n	L
D05	2	medium	high - timetable	medium	n	design/ land acquisition/ tendering**	2017/ 2018	gov	y - local	y	L
D06	1	medium/high	medium/high	medium - old road	n	execution		gov	y - local	n	N
D07	2	high - neighbour relations	medium /high matrix org	low/medium no geo	y	design/ land acquisition/ tendering**	apr-17	gov	y - local	y	L
D08	1	medium/high	low - own design	medium/high - bad soil	y	completed	2013	gov	y - local	n	L
D09	no	medium/high	low - own design	medium/high - bad soil	y	completed	2013	gov	y - local	n	L
D10	1	very high – locally	high - no problem	high – tun& bridges	y	execution	2016	gov city	Y - local	Y - local	L
F01	3	medium/high	low	medium - downtown	y	tendering	2018	gov city	y	no	L
F02	2	high - for its scale	medium - 12 contracts	medium - restoration		execution**		city	y	y	L
F03	3	low	low/ medium	medium/ high		execution		gov	n	n	L
F04	1	high	medium	high -tunnels		execution		gov city	y	n/y	N
F05	3	low/ medium	high - twice changed	medium/ high bridge		execution	2014	gov	n	n	L

F06	1	medium	medium	medium busy road	y	tendering		gov city	y		L
F07	3	low/ medium	low/ medium	high - tunnel	y	execution		gov city stk	y	y	N
F08	1	low	medium - interfaces	medium - traffic	y	execution	2016/17	gov city	y - steer g	not now	L
F09	no	medium/ high public	low	medium - high - tunnel	y	pre-design, preparing permits*	2014	city	y - tech board	n	L
F10	1	medium	low – good relations	medium	n	execution	end of 2015	city	y – tech board.	n	L
S01	3	middle now/high	low	high - TBM	n	execution		gov	y	y, very	N
S02	3	medium - co-financing	medium DBO	medium/ high - bridge	y	execution	end of 2014	gov city	y - local	n	L
S03	2	high - financing	medium - 16 contracts	high - clay	y	pre-design, preparing permits*	2026	gov	y	y	L
S04	2	medium	medium	high - first high speed line in SWE	y	pre-design, preparing tenders*	2025	gov city	y	o/y will be	L
S05	1	high - city centre	high - risk sharing, contracts	high - clay	y	design/ tender/ execution	2017brg 2020 tunnel	gov	n (?)	y	N
S06	non load	low/ medium - agreement	low/ medium - 2 contracts	medium/ high - locks not common	y	pre-design, wait for decision*, preparing tenders	from 2015 - 2018	gov	y - local	n	L
S07	1	very high - capital city	high - many parties	high - foreigners	n	execution	2017 (2016)	gov city stk	y	y	N
S08	1	high - city	high – 60 contractors	high - tunnel	y	execution		gov city stk	n	y	N
S09	1	medium/ high	high	high	y	pre-design, wait for decision*, preparing tenders		gov	y	y	N
S10	1	medium 5 cities	low/medium	low	y	execution	end 2014	gov city	y	n	L
S11	1	medium	medium	high - rail	n	tender/ execution	several stages	gov city	y	n	N
UK01	no	medium	high	high - signalling	y	execution	This stage 2014	gov	n	n	N
UK02	1	high	high alliances	medium/ high signalling	y	execution	This stage 2014	gov	yes local	n	N
UK03	non load	high	high alliances	high	y	tender/ execution	dec-18	gov	yes, local	?	N
UK04	1	high - city centre	high - IPT	High atrium	n	execution	sep-15	gov city stk	yes, local	?	N
UK05	1	medium/ high	high	high syst. Integration	n	execution	EI 2014; 2018	gov city stk	yes, local	n	N
UK06	1	very high	medium - volume	high	y	completed	2008	gov	y	y	N
UK07	1	high	high	high signalling	y	design/ tender/ execution	2018	gov	y	y	N
UK08	1	very high	very high	very high	y	completed	2012	gov city stk	y	y	N
UK09	no	very high	very high	very high	y	design/ tender/ execution	2018	gov	y	y	N
UK10	3	high	high	high signalling	y	design/ tender/ execution	2018	gov	y	y	N

Table 29 - Characteristics respondents - part 2

Gov = government; Stk = local stakeholders

Appendix F: Characteristics comparable among perspectives (%)

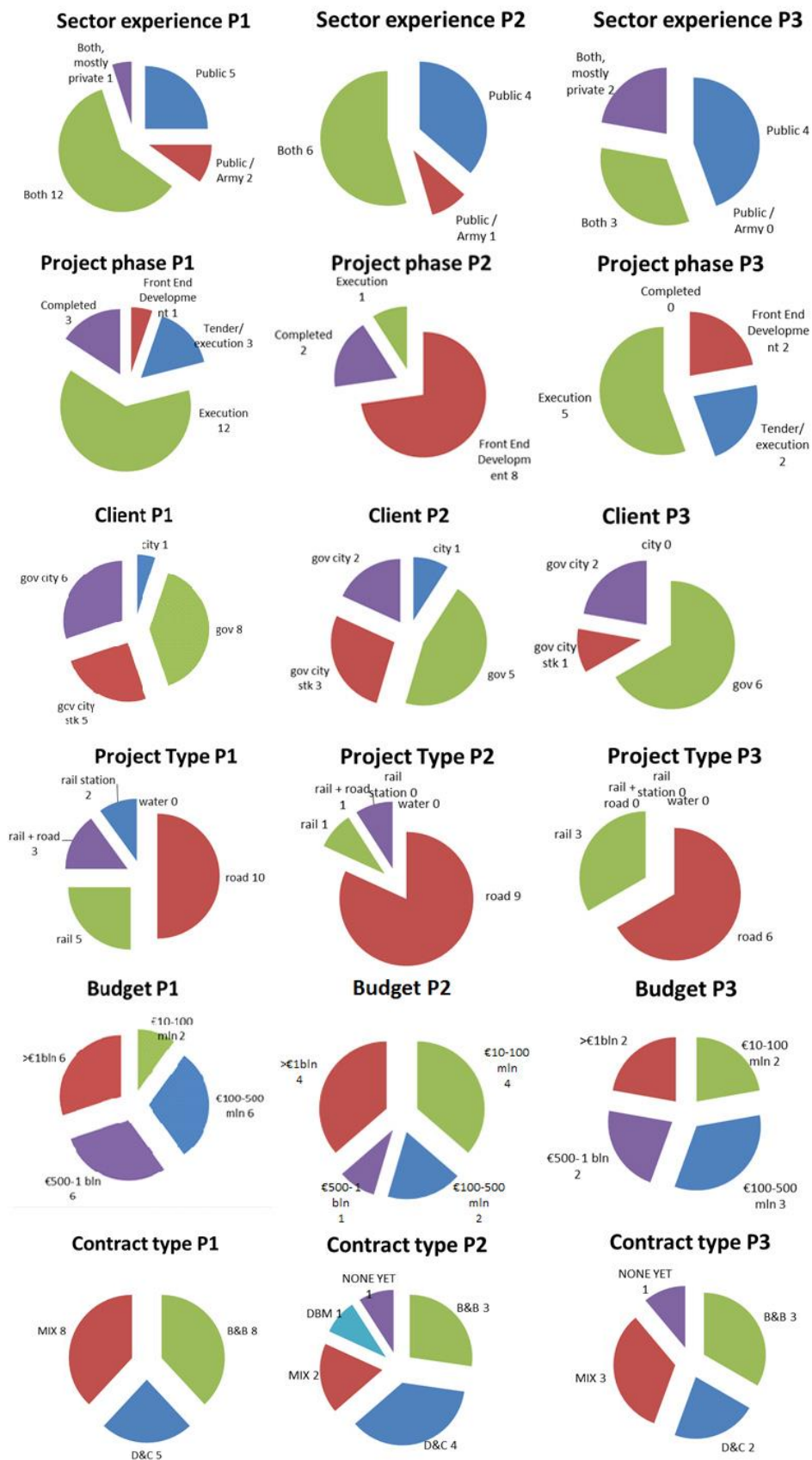


Figure 33 - Characteristics among perspectives

Appendix F': Spread between organizations on each perspective

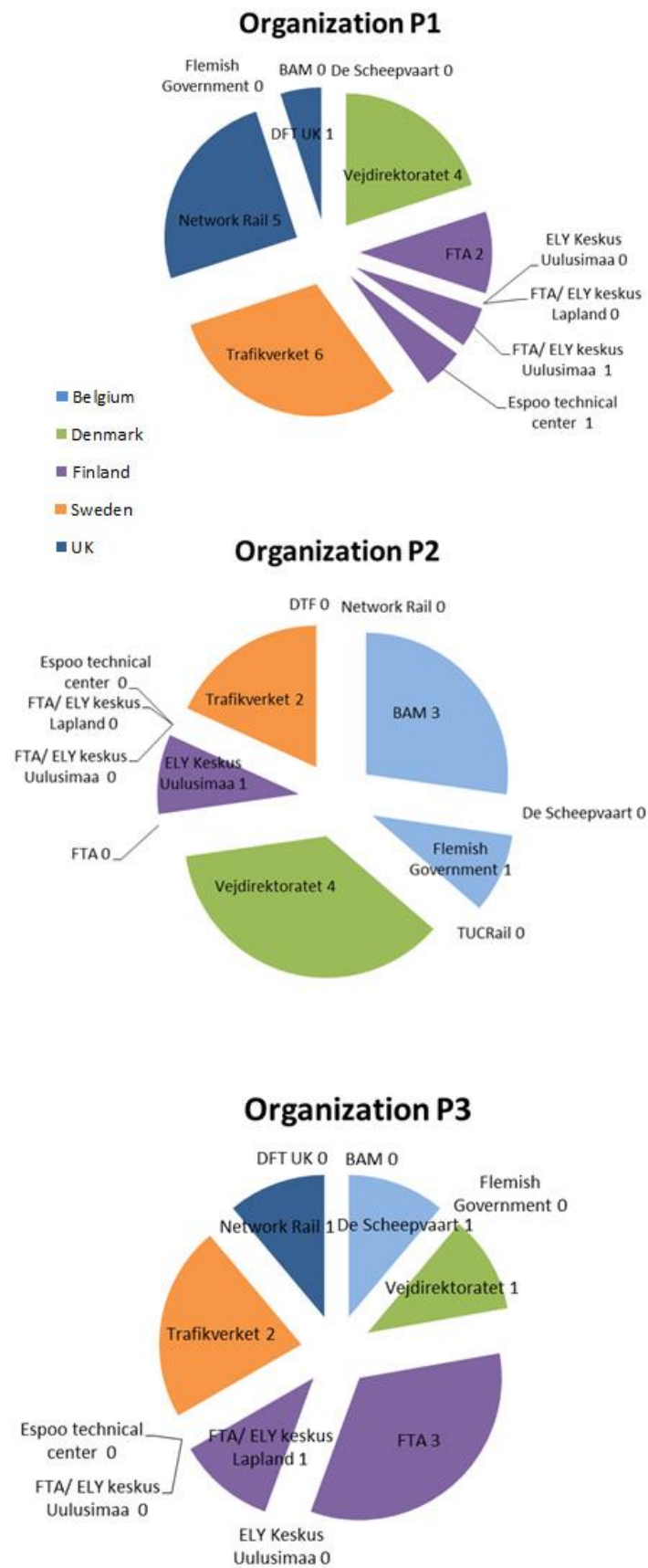


Figure 34 - Spread between organizations per perspective

Appendix F'': perceived complexity and political sensitivity

Perspective 1

Contact with politician y/n	r	Politically sensitive y/n/0	s	External Complexity	t	Organizational Complexity	u	Technical Complexity	v
n	1	y	8	high	8	high	10	high	12
y	11	y - locally	2	medium/ high	4	medium/ high	2	medium/ high	2
y - local authorities	6	y, will be	0	medium	4	medium	5	medium	4
y - steering com	1	no, it was	1	low/ medium	1	low/ medium	1	low/ medium	1
y - technical board	1	n	7	low	1	low	2	low	1
	20	not now	2	very high	2		20		20
			20		20				

Perspective 2

Contact with politician y/n	r	Politically sensitive y/n/0	s	External Complexity	t	Organizational Complexity	u	Technical Complexity	v
n	3	y	7	high	6	high	5	high	6
y	6	y - locally	0	medium/ high	1	medium/ high	2	medium/ high	0
y - local authorities	2	y, will be	1	medium	4	medium	4	medium	3
y - steering com	0	no, it was	0	low/ medium	0	low/ medium	0	low/ medium	2
y - technical board	0	n	3	low	0	low	0	low	0
	11	not now	0	very high	0		11		11
			11		11				

Perspective 3

Contact with politician y/n	r	Politically sensitive y/n/0	s	External Complexity	t	Organizational Complexity	u	Technical Complexity	v
n	2	no, it was	0	high	0	high	2	high	4
y	6	n	4	medium/ high	2	medium/ high	0	medium/ high	3
y - local authorities	1	y	5	medium	3	medium	3	medium	2
y - steering com	0	y - locally	0	low/ medium	1	low/ medium	2	low/ medium	0
y - technical board	0	y, will be	0	low	2	low	2	low	0
	9	not now	0	very high	1		9		9
			9		9				

Table 30 - Perceived complexity and political sensitivity among perspectives

Appendix G: Cultural test 1 – Job aspects – results per perspective

Perspective number	Questions V	Reward by abilities	Network that varies with business needs	A responsible job, where perseverance is valued	Learning new skills, adaptive	A useful job for society and environment	Pleasant, cooperative atmosphere among co-workers	A job in which you can achieve something	Challenge and recognition	Having a say in important decisions	Opportunity to use initiative	Respect for status	More supervisory personnel	Tolerance for ambiguity and chaos	Appreciation for generalists and common sense in	Job security: Steadiness and stability	Clear procedures and rules
V	no. q	43	39	35	47	40	32	44	36	34	46	38	42	37	45	33	41
	Dimen sion	LTO -	LTO -	LTO +	LTO +	MAS -	MAS -	MAS +	MAS +	PD -	PD -	PD +	PD +	UAI -	UAI -	UAI +	UAI +
1	D01	0	0	1	1	1	1	0	1	1	1	0	0	0	0	1	0
1	D06	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0
1	D08	0	0	0	1	1	1	1	0	1	1	0	0	1	1	0	0
1	D10	0	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0
1	F04	0	1	1	1	0	1	1	1	0	1	0	0	0	1	0	0
1	F06	0	1	1	1	0	1	1	0	1	1	0	0	0	1	0	0
1	F08	0	0	1	0	1	1	1	0	1	1	0	0	0	1	0	1
1	F10	1	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0
1	S08	0	1	0	1	1	1	0	0	1	1	0	0	0	1	0	1
1	S09	1	1	0	0	1	0	1	1	1	1	0	0	0	1	0	0
1	S11	0	1	1	1	1	0	1	0	1	1	0	0	0	0	0	1
1	UK02	0	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0
1	UK04	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0
1	UK05	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	0
1	UK07	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0
1	S05	0	1	1	0	0	1	0	0	1	0	0	1	0	1	1	1
1	S07	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0
1	S10	1	0	1	0	1	0	1	1	1	1	0	0	0	1	0	0
1	UK06	0	0	1	0	1	1	1	1	1	1	0	0	0	0	1	0
1	UK08	1	0	0	1	0	1	1	1	1	1	0	0	0	1	0	0
2	B06	0	0	1	1	0	1	1	1	1	1	0	0	0	1	0	0
2	B07	0	1	1	0	1	1	1	0	1	1	0	0	1	0	0	0
2	D02	0	0	1	1	1	1	0	1	1	1	0	0	0	1	0	0
2	D04	0	0	0	1	1	1	1	1	1	0	0	0	0	1	1	0
2	D05	0	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0
2	D07	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0
2	F02	1	0	0	0	1	1	1	1	1	1	0	0	0	1	0	0
2	S03	0	1	0	1	0	1	1	1	1	1	0	0	0	0	0	1
2	S04	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0
2	B04	0	0	1	1	1	1	1	1	0	1	0	0	0	1	0	0
2	B05	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0
3	B02	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0
3	D03	0	0	0	1	1	1	0	1	1	1	0	0	0	1	0	1
3	F01	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1
3	F03	1	1	1	1	0	1	0	1	0	1	0	0	0	0	1	0
3	F05	0	0	1	1	1	1	1	1	0	0	0	0	1	0	1	0
3	F07	0	0	1	0	0	1	0	1	1	1	0	0	1	1	0	1
3	S01	0	1	0	1	1	0	1	1	0	1	0	0	0	1	0	1
3	S02	0	0	0	0	1	1	1	1	1	0	0	0	1	1	0	1
3	UK10	1	1	0	1	0	1	1	1	1	1	0	0	0	0	0	0
	Sum	13	17	23	29	31	34	31	32	32	33	0	2	5	20	8	10
	%	26	34	46	58	62	68	62	64	64	66	0	4	10	40	16	20
	P1	7	9	15	16	19	20	19	17	22	22	0	1	2	14	5	4
	P2	3	4	4	8	8	9	8	8	7	7	0	1	0	3	0	2
	P3	3	4	4	5	4	5	4	7	3	4	0	0	3	3	3	4

Table 31 - Results cultural question set 1

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Appendix G': Frequency analysis for cultural test 1

Job aspect (gray = opposite views)	Respect for status	More supervisory personnel	Tolerance for ambiguity and chaos	Job security; Steadiness and stability	Clear procedures and rules	Reward by abilities	Network that varies with business needs	Appreciation for generalists and common sense in decision making	A responsible job, where perseverance is valued	Learning new skills, adaptive	A useful job for society and environment	A job in which you can achieve something	Challenge and recognition	Having a say in important decisions	Opportunity to use initiative	Pleasant, cooperative atmosphere among co-workers
aspect no.	38	42	37	33	41	43	39	45	35	47	40	44	36	34	46	32
Cult dim	PD +	PD +	UAI -	UAI +	UAI +	LTO -	LTO -	UAI -	LTO +	LTO +	MAS -	MAS +	MAS +	PD -	PD -	MAS -
B02						X	X			X	X	X	X	X		X
B04								X	X	X	X	X	X		X	X
B05									X	X	X	X	X	X	X	X
B06								X	X	X		X	X	X	X	X
B07			X				X		X		X	X		X	X	X
D01				X					X	X	X		X	X	X	X
D02								X	X	X	X		X	X	X	X
D03					X			X		X	X		X	X	X	X
D04				X				X		X	X	X	X	X		X
D05		X					X		X	X	X	X		X		X
D06								X		X	X	X	X	X	X	X
D07						X				X	X	X	X	X	X	X
D08			X					X		X	X	X		X	X	X
D10							X		X	X	X		X	X	X	X
F01				X	X	X	X		X	X	X		X			
F02						X		X			X	X	X	X	X	X
F03				X		X	X		X	X			X		X	X
F04							X	X	X	X		X	X		X	X
F05			X	X					X	X	X	X	X			X
F06							X	X	X	X		X		X	X	X
F07			X		X			X	X				X	X	X	X
F08					X			X	X		X	X		X	X	X
F10						X			X	X	X	X	X		X	X
S01					X		X	X		X	X	X	X		X	
S02			X		X			X			X	X	X	X		X
S03					X		X			X		X	X	X	X	X
S04							X		X	X	X	X	X		X	X
S05		X		X	X		X	X	X					X		X
S07						X				X	X	X	X	X	X	X
S08					X		X	X		X	X			X	X	X
S09						X	X	X			X	X	X	X	X	
S10						X		X	X		X	X	X	X	X	
S11					X		X		X	X	X	X		X	X	
UK02							X		X	X	X	X	X	X	X	
UK04						X				X	X	X	X	X	X	X
UK05				X				X			X	X	X	X	X	X
UK06				X					X		X	X	X	X	X	X
UK07						X			X		X	X	X	X	X	X
UK08						X		X		X		X	X	X	X	X
UK10						X	X			X		X	X	X	X	X
selected _ times	0	2	5	8	10	13	17	20	23	29	31	31	32	32	33	34
% who selected it	0	4	10	16	20	26	34	40	46	58	62	62	64	64	66	68

Table 32 - Frequency of selection job aspects - from least to most frequently selected job aspects

Appendix H: Cultural test 2 Question results

(mirrored scores for Q 21,22,25,26, 29 and 31, to fit high range on perspective)

No.	20	21	22	23	24	25	26	27	28	29	30	31
	PD +	PD +	PD +	UAI +	UAI +	UAI +	MAS +	MAS +	MAS +	LTO +	LTO +	LTO +
B01	3	1	2	4	4	4	1	2	1	3	3	2
B02	2	2	1	3	4	3	2	1	2	1	3	1
B03	2	2	2	3	4	3	2	2	3	3	2	2
B04	3	1	2	4	2	3	2	2	1	2	2	2
B05	1	1	2	3	3	2	1	1	2	2	3	2
B06	1	1	1	1	3	2	2	1	2	4	3	2
B07	1	2	2	3	3	1	1	2	2	2	3	2
B08	4	1	2	3	4	2	2	3	2	2	2	2
B09	3	1	2	3	1	3	2	2	3	4	2	2
D01	4	1	2	3	3	3	2	2	2	3	2	2
D02	3	1	1	4	3	2	1	1	2	2	3	1
D03	3	2	1	2	4	3	1	2	3	1	2	2
D04	3	2	2	3	2	3	1	2	2	2	3	2
D05	3	2	2	2	2	2	2	2	2	2	2	2
D06	2	1	2	4	3	2	1	2	2	2	3	2
D07	3	2	2	3	2	2	3	2	3	2	3	2
D08	3	1	2	3	3	2	3	2	2	2	3	1
D09	4	2	2	2	4	3	1	2	2	3	2	1
D10	3	1	1	3	3	3	1	2	2	2	3	3
F01	3	1	2	4	3	3	2	2	2	2	3	2
F02	2	1	2	3	2	3	2	1	2	2	3	2
F03	3	1	2	3	2	2	1	3	4	3	3	2
F04	1	1	1	4	2	2	1	2	1	4	3	1
F05	2	1	2	4	3	2	1	3	3	1	3	1
F06	3	1	1	4	3	3	2	2	1	2	3	3
F07	2	2	1	3	2	1	2	2	3	3	3	2
F08	4	1	2	4	3	4	1	2	2	3	4	2
F09	2	1	2	3	4	3	1	3	4	4	4	2
F10	3	2	2	3	2	2	1	2	2	3	2	1
S01	3	1	1	4	2	2	2	3	1	3	2	2
S02	2	1	1	4	1	3	1	1	1	3	2	1
S03	1	1	2	4	1	1	2	1	3	1	4	2
S04	3	1	1	4	3	3	2	2	2	3	3	2
S05	2	1	2	4	2	2	2	2	2	1	4	2
S06	2	1	2	1	1	3	1	3	2	3	4	2
S07	3	1	2	3	4	1	2	2	2	2	2	3
S08	2	1	2	3	3	2	2	2	3	2	3	2
S09	3	1	2	4	2	1	2	2	1	1	3	2
S10	2	1	2	3	2	1	3	1	2	1	2	2
S11	1	2	1	3	2	3	2	1	3	3	3	2
UK01	2	1	1	4	2	2	1	2	2	3	3	3
UK02	2	1	1	2	2	4	2	2	2	2	3	1
UK03	1	1	1	4	1	1	3	1	3	2	4	3
UK04	3	1	1	4	4	3	3	2	3	3	3	2
UK05	3	4	1	3	2	3	2	1	1	3	3	1
UK06	4	1	2	4	3	3	2	2	3	3	3	3
UK07	3	2	3	4	4	1	2	1	2	3	4	2
UK08	3	1	2	4	4	3	3	2	2	3	3	3
UK09	4	2	1	4	4	4	2	2	2	2	2	2
UK10	2	2	2	3	2	3	2	1	2	2	3	2
Aver	2,54	1,34	1,66	3,28	2,68	2,44	1,76	1,86	2,16	2,4	2,86	1,94
dev	0,89	0,59	0,52	0,78	0,96	0,86	0,66	0,61	0,74	0,83	0,64	0,59

Table 33 - Results cultural question set 2

Appendix I: Discussion over cultural question set 1

To have a clearer view on the subject, we can investigate deeper, at the level of the 16 items, to try to capture slight differences between perspectives. The following table shows the percentage of people from each perspective, which chose as important the job item on the x-axis.

Power distance (PD) – related job aspects

34 – Having a say in important decisions (PD-)

80-90 % of the respondents on P1 and P2 want a job where they have a say in decision making. **P3 scores remarkably lower, only 56% of the managers considering this job aspect important.** P1 and P2 respondents might be more interested in taking part in the decision making arena, either due to the character of their projects (P2), or due to their goal orientation. Social – oriented P3 know that other parties need to be listened to in the decision making process, and show less inclination towards having their way.

Country wise, Finnish managers were the only nation that showed a lower inclination for this job aspect – just 4 out of 10 managers, thus expressing the opposite dimension – high power distance. All of the Danish and UK respondents scored positive on this item.

46 – Opportunity to use initiative (PD-)

There are bigger differences in percentage among the different perspectives, for this particular job aspect. 95% of the respondents loading on P1 considered using initiative attractive – all of the Belgians, British and the Finn managers, plus most of the Swedes. **P1 managers appear to operate their projects on isolated environments, and have more opportunity to use initiative,** compared to their colleagues scoring on P2 and P3. P3 managers scored the lowest on this perspective – process managers do not expect to always have the chance to use initiative.

Country wise, all countries had exceptions from selecting this aspect, but for the British: all UK managers want a job where they can use initiative. For the other countries, around 80% of respondents opted for this job aspect, with the Finns scoring again lower (thus higher power distance)

38 – Respect for status (PD+)

No manager of the batch of 40 considered this job aspect relevant. Either they take respect for status, for granted, or they consider it politically incorrect to manifest interest for status. This confirms the expected country orientation towards low Power Distance – and even more so, for the case of decision makers.

42 – More supervisory personnel (PD+)

Only two managers out of 40 wanted more supervisory personnel on their team, to better manage the project: D05 and S05. They don't have anything in common in terms of country, background, experience or perspective. It must be a personal inclination.

Uncertainty avoidance (UAI) – related job aspects

37 – Tolerance for ambiguity and chaos (UAI-)

Only 5 people out of 40 considered this item important – they are spread along different countries, but 3 of them score on P3. Managers who are used to dealing with people develop tolerant attitudes.

45 – Appreciation for generalists and common sense in decision making (UAI-)

Among all the items related to uncertainty avoidance, this aspect received the highest appreciation: around half of the managers across all perspectives (44-55%) showed preference for this job aspect.

Country wise, Swedes scored in the highest number on this aspect – 60%. Half of the Belgian, Finn and Danish did the same; whilst only 2 British managers are inclined to this aspect. The issue of lack of trust in common sense, on behalf of the UK respondents, repeats itself in the second set of cultural questions, item 25. It seems they really distrust people's common sense, or the common understanding of what common sense really is, among the British society.

33 – Job security; steadiness and stability (UAI+)

Only 6 people out of 40 considered this item important – with the mention that 3 of them were P3 Finns. It is a job aspect less valued by managers – they are people that know their own worth and are at a level where a stable job is taken for granted.

42 – Clear procedures and rules (UAI +)

Respondents scored generally low on Uncertainty Avoidance items. **For this aspect, P3 managers had a higher preference: 56% of P3 people**, compared to 20% of P1 and 1 person on P2. It is clear that **P3 managers play by the (project management) book, and thus prefer to have clear rules to fall back on, as to validate the legitimacy of their process. P1 confirm their low inclination for the right process, whilst P2 managers, although process oriented, have a more flexible approach.**

Country wise, no Belgian or UK manager manifested interest in this aspect – showing low uncertainty avoidance (unexpected for Belgium). Swedish managers were the most prone to rules.

Masculinity (MAS) – related job aspects

32 –Pleasant, cooperative atmosphere among colleagues (MAS-)

All of the P2 managers agreed that it is very important to have a nice job atmosphere – a well-bonded team might be more desirable when the external project environment is unstable. On the other hand, it is maybe because these managers are people- and team- oriented, that they were put in charge of challenging projects. P1 and P3 respondents also scored high on this item – around 80%. **However, this preference is not reflected in the scoring of the success criteria, where criteria 15 – project team needs, is scored as average to low, behind external factors that were prioritized.**

Country wise there are no big differences – a minority of participants considered item 32 not important. Belgians and Danish appreciated it the most, whilst Swedes showed a colder, more business-like approach.

40 – Useful job for the society and the environment (MAS-)

Managers across all perspectives considered imported to do social service through your job as a public manager. P2 respondents showed a slightly higher preference for this aspect - it is probably important for politically challenged projects, to be proven useful for society in order to proceed with them.

Country wise, Danes and Swedes showed high preference for this item, and thus a Feminine (MAS-) orientation, as expected. Belgians go along the same lines, but it is because the necessity to get social acceptance for their projects, rather than the country orientation (Hofstede sees it as more masculine). Unexpectedly, only half of the Finns (and British) mentioned this item, appreciating the social service done by their job.

36 –Challenge and recognition (MAS+)

All respondents appear oriented towards a job that provides challenge and recognition – only 23% of the respondents do not report it as important. P3 agrees in proportion of 100%, whilst for P2 and P1, around 80% of respondents showed inclination towards this item. It might be that P3 managers prefer to take on challenges and seek recognition, as they believe they can handle a lot and get acknowledgement for their worth. However, strangely enough, this is not paired with the achievement orientation, for P3.

Country wise, all of the British and Belgian respondents checked this item, confirming their masculine orientation. The other countries had several outliers on this aspect.

44 –A job in which you can achieve something (MAS+)

P1 and P2 respondents ranked considerably high this job aspect – between 80 and 90%. There are no large differences among perspectives. **P1 are achievement oriented**, regardless of their national culture (feminine or masculine), and they strive towards their final purpose. **P2 score the highest – the challenge seekers were put ahead of challenging projects. P3 score remarkably lower – only 56% are achievement oriented, and, rather than the final goal, focus on the right way to achieve it.**

Country wise, Belgium and UK are, as expected, more masculine oriented. On the other hand, only half of the Danes and Finns consider achievement important. Swedes score is in between these.

Long term orientation (LTO) – related job aspects

39 – Network that varies with business needs (LTO-)

Preferences for this item were **proportional along all perspectives** – average to low, less than half of the respondents per perspective considered it important. P3 respondents scored it higher - 56% - underlining their people-orientation and interest in process and networking.

Country wise, **the Swedes** showed particular predilection for this item - 70%, whilst on the opposite pole, just two Danes considered it important. For the rest, half of the Belgians, Finns and Danish considered the variable network important.

43 - Reward by abilities (LTO-)

Managers across perspectives manifested a relatively low preference for this job aspect. **The lowest preference was manifested by respondents loading on P2.** Only 2 out of 10 managers considered it important – and those had their projects approved. In politicized environments, the abilities appear to matter more than the decision making power.

Out of all the countries, UK managers were the ones that opted in larger number for this item – 3 on P1 and 3 on P3. It's to be expected to reward by ability, as UK is a country low term oriented (LTO-). Finland also recorded 4 options of this item. Only 3 Swedes, one Belgian and one Danish respondent considered important to get or give reward according to abilities.

35 – Responsible job, perseverance (LTO+)

Among P1 and P2 managers, 60% considered responsibility and perseverance important. For the **P3 the percentage is lower – following the line of low achievement orientation. If several parties are strongly involved in projects, it is more likely that responsibility is spread.**

Country wise, Belgians and Finns manifested high preference for this aspect – 80%, showing a higher long term orientation. Only 40% of the respondents from each of the other 3 countries thought along the same lines.

47 – Learn new skills, adaptive (LTO+)

Whilst 82% of P2, and 78% of P3 managers considered this job aspect important, **only 65% of the P1-loading managers considered the same. This might be because they are more experienced, have already the ensemble view and analytical skills and don't consider that they have to always adapt, and they can take on any challenging situation. P2 and P3 are more flexible and willing to learn – however, the success criteria related to personal development is not ranked high by them in the q-sort.**

Country wise, all 10 Danish people agreed that this item is important – showing a high LTO. Same was true for 80% of the Belgians, while just 60% of the Finns, Swedes and British preferred this item – showing shorter term orientation and less proneness to learn.

Appendix J: Discussion over cultural question set 2

PD 20. I am working in a centralized organization, with several supervision levels	Q20	BE	DK	FI	SE	UK	Q26 -	BE	DK	FI	SE	UK	MAS 26(-). Last time facing a decision, I DECIDED ALONE rather than strive for consensus.
	avr >	1,6	3,0	2,6	2,2	2,9	avr >	1,6	1,7	1,4	2,0	2,3	
	1 str diss	60	0	11	20	0	1 str diss	40	56	56	10	0	
	2 diss	40	11	33	40	29	2 diss	60	22	44	80	71	
	3 agr	20	78	44	40	57	3 agr	0	22	0	10	29	
PD 21(-).When delegating a task to the team, a good manager NEEDS TO supervise all details.	4 str agr	0	11	11	0	14	4 str agr	0	0	0	0	0	MAS 27. In my project, the appreciation of excellence is individual rather than on team.
	Q21 -	BE	DK	FI	SE	UK	Q27	BE	DK	FI	SE	UK	
	avr >	1,4	1,4	1,2	1,1	1,7	avr >	1,4	1,9	2,1	1,7	1,6	
	1 str diss	60	56	78	90	57	1 str diss	60	11	11	40	43	
	2 diss	40	44	22	10	29	2 diss	40	89	67	50	57	
PD 22(-). Last time I disagreed with the management above, I DID NOT expressed it OR presented the issues.	3 agr	0	0	0	0	0	3 agr	0	0	22	10	0	MAS 28. I chose to be decisive in case of a conflict, rather than negotiate.
	4 str agr	0	0	0	0	14	4 str agr	0	0	0	0	0	
	Q22 -	BE	DK	FI	SE	UK	Q28	BE	DK	FI	SE	UK	
	avr >	1,6	1,7	1,7	1,6	1,7	avr >	1,8	2,2	2,2	2,0	2,1	
	1 str diss	40	33	33	40	43	1 str diss	20	0	22	30	14	
UAI 23. After this project, I wish to continue my career within this organization.	2 diss	60	67	67	60	43	2 diss	80	78	44	40	57	LTO 29(-). I AM feeling ashamed for not performing, RATHER THAN worry about our image as professionals.
	3 agr	0	0	0	0	14	3 agr	0	22	22	30	29	
	4 str agr	0	0	0	0	0	4 str agr	0	0	11	0	0	
	Q23	BE	DK	FI	SE	UK	Q29 -	BE	DK	FI	SE	UK	
	avr >	2,8	3,0	3,6	3,6	3,4	avr >	2,2	2,0	2,6	2,0	2,7	
UAI 24. A great level of scope definition should be used before tendering.	1 str diss	20	0	0	0	14	1 str diss	20	11	11	40	0	LTO 30. To adapt to future needs and circumstances, we have embedded flexibility in the scope.
	2 diss	0	22	0	0	29	2 diss	60	78	33	20	29	
	3 agr	60	56	44	40	57	3 agr	0	11	56	40	71	
	4 str agr	20	22	56	60	0	4 str agr	20	0	11	0	0	
	Q24	BE	DK	FI	SE	UK	Q30	BE	DK	FI	SE	UK	
UAI 25 (-). Rules ARE necessary, EVEN IF IT can be dealt with by common sense.	avr >	3,0	2,8	2,4	2,2	3,0	avr >	2,8	2,7	3,0	2,8	3,1	LTO 31(-) . For project goals I am NOT prepared to jeopardize my relationship with the contractors.
	1 str diss	0	0	0	20	43	1 str diss	0	0	0	0	0	
	2 diss	20	33	56	50	14	2 diss	20	33	11	40	0	
	3 agr	60	56	44	20	43	3 agr	80	67	78	40	86	
	4 str agr	20	11	0	10	0	4 str agr	0	0	11	20	14	
	Q25 -	BE	DK	FI	SE	UK	Q31 -	BE	DK	FI	SE	UK	
	avr >	2,2	2,4	2,4	1,9	2,9	avr >	1,8	1,9	1,8	2,0	2,0	
	1 str diss	20	0	11	40	14	1 str diss	20	22	33	10	29	
	2 diss	40	56	44	30	0	2 diss	80	67	56	80	43	
	3 agr	40	44	33	30	71	3 agr	0	11	11	10	29	
	4 str agr	0	0	11	0	14	4 str agr	0	0	0	0	0	

Figure 35- Culture set 2, percentage agreement to statements per perspective

Power distance (PD) items

20. I am working in a centralized organization, with several supervision levels.

Although the spread of the answers covers the whole scale, on this first question, a significant percentage of respondents across all perspectives scored on the positive side of power distance. Half of the managers acknowledge their organization to be quite hierarchical, scoring 3. This makes sense, considering we are dealing mostly with governmental organizations. The answer to this question describes a de facto situation within the mother-organizations of the respondents, and does not align with the responses to the other two PD-related items. Finnish and Swedish managers were the ones that considered their organizations the least hierarchical.

Perspective-wise, P1 shows a good spread on this question along the 4-point scale, inclining on the med-high side of PD – thus more managers perceive their organization as centralized. P3 managers are going for the middle way – not extremely hierarchical, neither too independent. For P2, the

average score is particularly low due to the different circumstances: 4 people (from BAM) see themselves in a free, horizontal organization – SPV-like, whilst 6 mentioned a slightly more centralized structure. **Thus, the first perspective includes more people who perceive their organizations as centralized. In P3 there is a more balanced view, whilst P3 managers see their organization either as highly decentralized or horizontal, or as medium centralized.**

Country-wise, it was expected to see more horizontal structures in Denmark, but this was not actually the case – the mode for this country was 3, and the average was the highest – 3. Finland and Sweden scored mostly on 2 and 3, and Belgium scores the lowest, divided between BAM employees that scored low – seeing their organization as an SPV, and the rest appreciated their organizations medium-high hierarchical, confirming Belgium's high PD inclination. UK also scored relatively on the high side.

21. When delegating a task to the project team, a good manager does not need to supervise all the details –he can rely on his subordinates. (Mirrored scores - 4321)

The vast majority of the respondents scored, (as expected from managers), on Low PD (1 or 2) – thus they trust and delegate responsibility to their employees. The general mode is 1. P1 shows the lowest average scores – 1.3 - and a very low standard deviation. 16 out of 20 people *strongly* agreed that employees can (and should be) relied upon – “else why would I want them in my team?” **P1 managers trust the technical capacities of their team, suppose unconditional collaboration, and need to delegate tasks their subordinates in order to maintain their bird's eye view on the project.**

Country wise, UK scored higher than the rest. Only one manager (P1, UK) scored on high PD, manifesting distrust and mentioning that he prefers to keep the situation in control. His younger age and lack of experience could be the explanation for this tight approach.

22. Last time I did not agree with the management level above me, within this project, I expressed my disagreement and presented them the issues.

Irrespective of the country, 39 out of 40 managers scored on the low side of PD, declaring that they would express their disagreement towards superiors, and expect their subordinates to do the same. However, the mode to this question tends towards 2 – thus they would not strongly express their opinion, but do so in a moderate way. The standard deviation of this question is small compared to other questions – people had quite similar opinions in this case.

P3 respondents might take a stronger stance in expressing their opinions (56% scored 1) – and this is points to their soft skills and inclination to communicate. To be able to maintain trust relations, one should be able to speak his mind. P2 managers, still caught in decision making, were more moderate towards disagreeing, 73% scored 2 (not strongly, but agree to disagree). There was only one exception to the rule: he is a former army engineer, this can explain his attitude: orders are not to be discussed.

Conclusions PD: managers from all the countries incline to low power distance on a personal level. However, although they come from countries scoring low on PD, they can perceive their mother organizations as centralized (higher PD scores on question 20).

Uncertainty avoidance (UAI) items

23. After this project, I wish to continue my career within this organization.

Managers mostly agreed or strongly agreed that they want job continuity, irrelevant of perspective or country. There was a bias in the response, as there were several managers on the verge of retirement. They were asked to answer as if that were not the case. There were 4 exceptions, mostly young managers willing to shift jobs, spread across all perspectives. Two of them were Danish, one Belgian and one British. The propensity to continue with the same organization appears lower for Belgium and Denmark.

24. A great level of detail should be used in the project scope definition before tendering the contract.

The feedback on this question was related to the projects discussed during the Q-sort, and managers acknowledged that, in different circumstances, different approaches towards the level of detail for tenders would be appropriate. **Thus, answers on item 24 are highly circumstantial, and don't necessarily relate to the country positioning on UAI.**

Perspective-wise, there are no high differences. P1 managers score slightly higher, and have a remarkably large standard deviation. P1 people feel at ease when having a better defined scope. **That could explain their product-oriented approach and preference for a fit for purpose project.**

Country-wise, UK and Belgium score on the high side of UAI, Sweden – relatively low, and Finland and Denmark are in the middle area (split between 2 and 3) – depending on the project type. **It is the UK and Danish managers that incline the P1 balance on the “safe” side of UAI.**

25. In the project's context, no rules are necessary for what can be dealt with by common sense. (-)

P2 and P3 managers show a higher predilection for no rules, and belief in common sense and the power of negotiation (low UAI) – explaining their people orientation in ranking success criteria. Managers in charge of politically sensitive projects should be more flexible in challenging environment. P1 incline slightly towards more UAI – process rules are good to have, regardless of people's common sense.

Country wise, Swedes show less propensity towards rules, whilst Belgians, Finns and British in particular tend to favor them. The UK managers in particular expressed their distrust in people's common sense, and belief that – although the red line strangles projects – rules are useful at times. Danish showed moderated views, divided among 2 and 3 scores.

Conclusions UAI: Although most managers agreed that they want to continue with their current job, Q-sort results show low rankings across all perspectives, of the success criteria *C1.continuity of client organization*. This can be because they are generally part of large governmental organizations, whose continuity is generally not an issue. The level of detail in scope depends upon the type of project. For P2 and P3, the UAI scores were slightly lower – either the managers in charge know that they need to be flexible, whilst awaiting the decisions, or they were chosen for politically challenged projects because of their flexibility in front of unexpected situations. When it comes to rules in a project context, P1 respondents showed appreciation for their existence. This is infirming their low positioning of criteria *C13. Right process is followed*. P2 on the other hand prefers to rely on common sense, whilst the ranking of C13 is higher.

Masculinity (MAS) items

26. Last time I was facing a decision for this project, I strived for consensus in the group, rather than make the decision only by myself.(-)

The general range is on the low side, meaning most of the managers favour reaching consensus within their groups. There were 5 exceptions from this – people with a score of 3, thus preferring to decide themselves. **As seen in the table, on P1, a higher percentage chose to take decisions without much group discussion - 4 out of 20 respondents, of which 2 were British, one Swede and one Danish.**

27. In my project, the appreciation of excellence is on individual basis rather than team achievement.

The table shows clearly the inclination of all interviewed managers towards appreciating the achievements of the team, not of specific individuals. The standard deviation of this question is quite small. **P3 respondents appear to slightly incline on appreciating individuals – maybe as motivational strategy to perform.** No one scored on the high side within P1 and p2, and no respondent agreed strongly with individual appreciation.

Country wise, it might be worth to mention that all but one Danish people scored 2 – agree with team appreciation, and that 3 out of 10 Finns, unexpected for a feminine society, considered showing individual appreciation.

28. I choose to be decisive in case of a conflict, rather than negotiate.

Answers to this item ranged across the whole scale, from 1 to 4 – with a higher range for Finns and Swedish, and the others gravitating around 2- showing the inclination towards negotiation.

P1 and P2 have similar averages, whilst P3's average is slightly higher – there were 4 people willing to exert a stronger position in order to calm the conflict. People with soft skills know to tune their behavior so as to resolve the conflict as efficient as possible.

Conclusions MAS: Most of the managers agreed on inclining to reach group consensus, on the appreciation of the team as a whole and on favouring negotiation during conflicts. However, they still chose to rank criteria related to their team's needs (C15) low during their Q-sort, prioritizing other social aspects. P3 managers inclined towards slightly higher MAS, and contradict their higher ranking in their Q-sort of criteria related to relations with contractors (C6) and to needs of the project team (C15), relative to the other two perspectives. It might be the case that, although they value and seek collaboration, they are still unable to drive it unconditionally, and at times need to show a stronger stance in order to get things done the way they plan.

Long term orientation (LTO) items

29. When I have difficulties in accomplishing project promises, I worry more about the effect on our image as professionals, than feeling ashamed of not performing. (-)

Opinions were spread along the whole scale for this question also. Within P1 and P3, half of the respondents affirmed they worry about the effect of failures on the external image, scoring 2. **For P2, this percentage is lower – 82% of the people mentioned they worry about the image rather than**

going through an internal conscience process for not performing. Obviously, in a politicized context, the image projected to the media is more important than in other situations.

Country wise, the Danish and the Swedes inclined mostly to care about external image, whilst UK people had more people scoring 2, which means processing failure internally.

30. To adapt to future needs and circumstances, we have embedded flexibility in scope.

The answers to this question, as in the case for question 24, did not reflect an overall preference of managers, but a situation-specific approach – since they were requested to give examples from their on-going project. Several mentioned that other projects might allow for a different flexibility with regard to future improvements.

That being said, it can be seen that a large percentage scored on the high side, embracing flexibility. **P2 respondents show the largest percentage** (and the lowest standard deviation – thus clearly future oriented), followed by P1. **It makes sense that, for P2 - projects pending decision/ approval, the project scope would be more flexible. Infra projects have a long expected lifetime, thus necessity to adapt to future developments is to be expected.** P3 managers scored similar to P1 managers, but there were no extreme positions registered.

Country-wise, UK and Finland showed higher inclination towards flexibility, with a score mode of 3. Less flexible was the approach in the cases of Belgium, Denmark and Sweden: in each of these countries, about 40% of the respondents scored 2 – disagreeing with the existence of flexibility embedded in their project⁶. However, Belgian and Danish managers having the P2 perspective all scored 3 - maybe because the project's politicized background.

31. Considering a high pressure situation, in order to achieve the required project goals I am prepared to jeopardize my relationship with the contractor. (-)

Regarding the aspect of damaging relations with contractors, (five) P1 and (three) P3 managers show a high propensity in this sense. In the traditional management view, the state/ client has the privilege in front of contractors. However, five other P1 managers inclined on the other side, showing less will to get into arguments with contractors. P2 managers were a bit more moderate, with a score mode of 2 (very low standard deviation) acknowledging the importance of dealing well with the contractors, as they have a strong influence of the project. No – one of the managers strongly disagreed with the question 31.

However, the results to this question do not correlate well with the ranking of the success criteria *6. good working relations with contracting partners*! P1 and P3 ranked the criteria higher (positive z-scores, rank 0, respective 1 on the scale from +3 to -3), whilst P2 ranked it lower (rank -1, negative z-score – see chapter 7.2.) – However, it is precisely P2 who showed less interest to argue with contractors. Perhaps they value the criterion less because they know how to deal with them.

Conclusions UAI: Managers tend to care more about the external image their organization projects, especially those loading on P2 – in politicized context, image in front of external influencers is more important. Criteria related to right process (C13), to politics (C11), to shareholders (C17) and stakeholders (C18) score higher. However, the positioning of criteria related to the professional image of the client organization (C3) ranks similar as in the other perspectives. The purpose is to

maintain the trust of involved parties, not to save one's back. Scope flexibility is situational; however managers of undecided projects – P2 – showed more inclination towards it. They are ranking high time and budget success criteria (C2 and C19), but quite low the fitness for purpose (C5) – this could be an expression of the scope flexibility and adaptability. When it comes to relations with contractors, managers see them as contractual, not long-term oriented, and are ready to get into arguments. This attitude is infirmed by the higher ranking in the Q-sort of the criteria related to *good working relationships with contracting partners*, but is aligned with the low ranking of *C10 - Profitability for the contractor*.

Appendix K: Theories on cultural differences

Hofstede's Cultural theory – cultural dimensions

Hofstede presents the relationship among culture, values and practices as an “onion diagram”, with the values at the core of it all, determining culture and practices. The definition given by Hofstede to culture is “the collective programming of the mind that distinguishes members of one group or category of people from another”(Hofstede, 2001, p. 9), and values as states of affairs preferred by groups of people, invisible parts of culture that manifest into behaviour.

Hofstede founded the cultural dimension paradigm, based on a large empirical study via a questionnaire, performed on IBM employees from 50 countries. He conceptualized the results of factor analysis by defining initially four cultural dimensions: Masculinity/ Femininity (emotional gender roles), Individualism/ Collectivism (linked to interpersonal relations), Power distance (linked to inequality), Uncertainty avoidance (linked to dealing with uncertainty). In later versions, he added Long/short term orientation or Pragmatism (linked to gratification postponed), and, based on Minkov's study, he recently integrated Indulgence/Restraint (linked to the gratification of human drives). The influence of national wealth on several dimensions is emphasized in his study – especially the Power Distance and Individualism dimensions.

The following paragraphs will reproduce Hofstede's dimensions explaining values, attitudes and behaviours, their definitions' being retrieved from Hofstede's updated web page(<http://geert-hofstede.com/dimensions.html>). These bipolar dimensions are “as much as possible supported by empirical data”(Hofstede, 2001, p.84).

Power Distance Index (PDI) (Manual VSM08 Hofstede)

Power distance expresses “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.”(Hofstede et al., 2005, p. 46). “Power distance between boss B and subordinate S in a hierarchy is the difference between the extent to which B can determine the behaviour of S and S the behaviour of B.”(Hofstede, 2001, p. 83)

“The fundamental issue here is how a society handles inequalities among people. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low power distance, people strive to equalise the distribution of power and demand justification for inequalities of power.” (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Individualism Index (IDV)

“Individualism is the opposite of Collectivism. Individualism pertains to a society in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty.”(Hofstede et al., 2005, p. 76)

“The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of I or WE.” (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Uncertainty Avoidance Index (UAI)

“Uncertainty Avoidance is defined as the extent to which the members of a culture feel threatened by ambiguous or unknown situations.” (Hofstede et al., 2005, p. 167) This is expressed through high stress levels and a need for (un)written rules leading to more predictability.

“The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.” (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Masculinity Index (MAS)

“Masculinity is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life.” (Hofstede et al., 2005, p. 120)

“The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented.” (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Pragmatic vs Normative (PRA) – previously Long Term Orientation Index (LTO)

In 1991, Hofstede added a fifth dimension was added in 1991 based on research by Michael Harris Bond developed in collaboration with Chinese professors. This dimension, called Long-Term Orientation (LTO) based on Confucian thinking, was verified in 23 countries. “**Long Term Orientation** is the opposite of Short Term Orientation. Long Term Orientation stands for a society which fosters virtues oriented towards future rewards, in particular adaptation, perseverance and thrift. Short Term orientation stands for a society which fosters virtues related to the past and present, in particular respect for tradition, preservation of “face”, and fulfilling social obligations.” (Hofstede et al., 2005, p. 210). In 2010, research by Michael Minkov generated other dimensions using recent World Values Survey data, and the second was strongly correlated, but not really identical to, Hofstede's fifth dimension, LTO. Hofstede included Minkov's input, and reformulated LTO into **Pragmatic versus Normative (PRA)**. The national scores for this last dimension were extended by

Minkov's research to 93, and it is based on these that appear on Hofstede's updated web page, and in the scores overview within this chapter.

"This dimension describes how people in the past, as well as today, relate to the fact that so much that happens around us cannot be explained. In societies with a *normative orientation* most people have a strong desire to explain as much as possible. People in such societies have a strong concern with establishing the absolute Truth and a need for personal stability. They exhibit great respect for social conventions and traditions, a relatively small propensity to save for the future and a focus on achieving quick results.

In societies with a *pragmatic orientation*, most people don't have a need to explain everything, as they believe that it is impossible to understand fully the complexity of life. The challenge is not to know the truth but to live a virtuous life. In societies with a pragmatic orientation, people believe that truth depends very much on situation, context and time. They show an ability to accept contradictions, adapt according to the circumstances, a strong propensity to save and invest, thriftiness and perseverance in achieving results." (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Recently, Hofstede's web page was modified to include one more of the dimensions described by his pupil, Minkov – Indulgence vs Restraint. This sixth dimension will be described in more detail in the paragraph 4.5 on Minkov.

"*Indulgence* (low index score) stands for a society which allows relatively free gratification of some desires and feelings, especially those that have to do with leisure, merrymaking with friends, spending, consumption and sex. Its opposite pole, *Restraint*, stands for a society which controls such gratification, and where people feel less able to enjoy their lives." (Retrieved from <http://geert-hofstede.com/dimensions.html>).

Theory assessment - country scores on Hofstede's dimensions

Below, an overview on the national scores of the target countries on Hofstede's 6 dimensions is reproduced below. Note that this study's target countries tend to score similar on dimensions like Individualism(high) and Restraint(medium), but there are large variances for Power distance, Masculinity (mostly feminine, but with exceptions), Uncertainty avoidance and Long term orientation/ Pragmatism. Paragraph 4.10 will give deeper insight into these four dimensions, in order to put national differences up for assessment during the interviews. Although Hofstede's data can be criticized on its age and lack of national representativeness (only IBM employees), we have to admit his pioneering job in cross-cultural studies. He acknowledged that World Value Survey data, if existent at the time he stated his theory, would have been ideal for the scope of his research. However, his theory is widely spread and acknowledged, there are rich literature sources and, over time, the validity of these dimensions has been confirmed by many studies (e.g., Van Oudenhoven, 2001; for an overview of earlier replications, see Søndergaard,1994). We can conclude from this, that we can use within our research Hofstede's theory and his dimensions that show large variations among target countries. We will use them to formulate questions by which we can give more insights into cultural practices and differences, and possibly explain certain specific rankings of success criteria.

Minkov's cultural theory – building upon Hofstede

Minkov adds to the basic 4 cultural dimensions of Hofstede, another 3 dimensions extracted from the latest wave of the World Values Survey, validating them by comparing to other cross-cultural data (Minkov, 2007).

The indexes of Hofstede's collectivism vs. Individualism, - Inglehart's "self-expression versus survival values" - and the one described by Project GLOBE ad societal in-group collectivism, are closely correlated (Minkov, 2007, p. 54). However, Minkov considered these dimension's correlation misleading, as there was only one factor behind both happiness, and wealth and westernization. This aspect was not confirmed by the happy yet poor West-African and northern Latino American countries. Therefore, based on World Value Survey items, Minkov determined two sets of bipolar dimensions, describing differences between the west and the rest - Exclusionism versus Universalism, and about happiness and subjective well-being – Indulgence versus restraint. The last dimension, Monumentalism versus Flexumility, deals with aspects like pride, self-enhancement and self-consistency, as opposed to a tendency to humility and self-flexibility.

Besides beliefs and values, these dimensions relate to differences in real-life occurrences like corruption, product quality, income inequality, performance on IQ tests and GD-per-person growth. The following paragraphs contain short introductions to Minkov's dimensions and salient features that could be related with our previously enounced success criteria.

Exclusionism versus Universalism

"Exclusionism" is the cultural tendency to treat people on the basis of their group affiliation and reserve favours, services, privileges and sacrifices for relatives, friends, or other groups that one identifies with, while excluding outsiders from the circle of those who deserve such privileged treatment.

Universalism is the opposite cultural tendency: treating people primarily on the basis of who they are as individuals, and disregarding their group affiliation." (Minkov, 2007, p. viii)

Exclusionism	Universalism
Sharp distinctions in- and out-groups	Blurred distinctions in- and out-groups
Preferential treatment of in-group members	Nepotism is immoral; meritocracy
Rejection of Western 'rule of law'	'rule of law' – rules are same for everybody, regardless of group
Agreements not necessarily kept	Agreements are kept
Higher corruption	Lower corruption
Little concern for the environment	Higher concern for the environment
Little concern for safety measures	Higher concern for safety measures
Low product quality and more frequent cheating of customers	Higher product quality and infrequent cheating of customers

Table 34 - Exclusionism vs Universalism characteristics

This cultural dimension contrasts the practices of the West with those of the rest of the world – with many societies in-between. The extremes are the Universal Scandinavian states, and at the opposite pole, the exclusionist African, and many Asian, states (Minkov, 2007). Exclusionism is intended as the

non-western tendency to strong in-group cohesion and exclusion of out-group member from preferential treatment. Minkov considered that individualist–collectivist does not properly explain the West-and-rest differences; and that Hofstede’s questions do not address in-group-out-group questions.

Indulgence versus Restraint Index (IVR)

“**Indulgence** is a tendency to allow relatively free gratification of some desires and feelings, especially those that have to do with leisure, merrymaking with friends, spending, consumption, and sex. Indulgence boosts happiness and creates a perception of freedom, health, and life control.

Cultural restraint stands for the opposite. It depresses happiness and the perceptions that life events can be controlled, and makes people feel relatively unhealthy.” (Minkov, 2007, p. ix)

Indulgence	Restraint
A feeling of personal freedom and life control.	A feeling that one’s freedom of action is severely restrained by various social norms.
Thrift is not considered important; savings rates are low even if there is a disposable income.	Thrift is considered important; savings rates are high when there is a disposable income savings rates are high.
Work is considered very important, but not far more important than leisure.	Work is considered very important, but it is much more important than leisure.
High happiness and positive feelings	Low happiness and infrequent positive feelings

Table 35 - Indulgence vs Restraint characteristics

Monumentalism vs Flexumility Index (MON)

“**Monumentalism** stands for pride and high self-regard, demonstration of status and generosity, interpersonal competition, absolutist thinking, religiousness, and modest or poor educational performance. In monumentalist cultures, the human self is like a monument: proud and monolithic (consistent and inflexible). The Monumentalism Index will probably be negatively correlated with the Long Term Orientation Index, but it includes aspects not covered by the latter.”

Cultures at the opposite end – **Flexhumility** (Self-effacement) are characterized by the opposite characteristics. – stands for a society which rewards humility and flexibility are characterized by the opposite characteristics.”(Minkov, 2007, p. x)

Monumentalism	Flexhumility
Demonstration of personal superiority and international competitions are allowed	Keeping a low profile is the norm; interpersonal competition is discouraged
Service to others and helping others are very important	Service to others and helping others are not very important
Absolutist thinking	Dialectical thinking
Immutable values and beliefs	Flexible values and beliefs

Table 36 - Monumentalism vs Flexhumility characteristics

Theory assessment

The target countries tend to have low indexes on exclusionism (thus highly universalistic, especially the Netherlands and Sweden), average on indulgence (with Belgium the most indulgent of the batch) and low on monumentalism (thus incline towards flexumility). There are little differences among the target country indexes to be accounted for by further questioning during the interviews; furthermore, besides concern for the environment and for safety, these three dimensions do not yield aspects easily linked to our concourse of success criteria. Therefore, these dimensions will not be operationalized into questionnaire items. The theory will however be used, if found conspicuous, at the time of the data analysis.

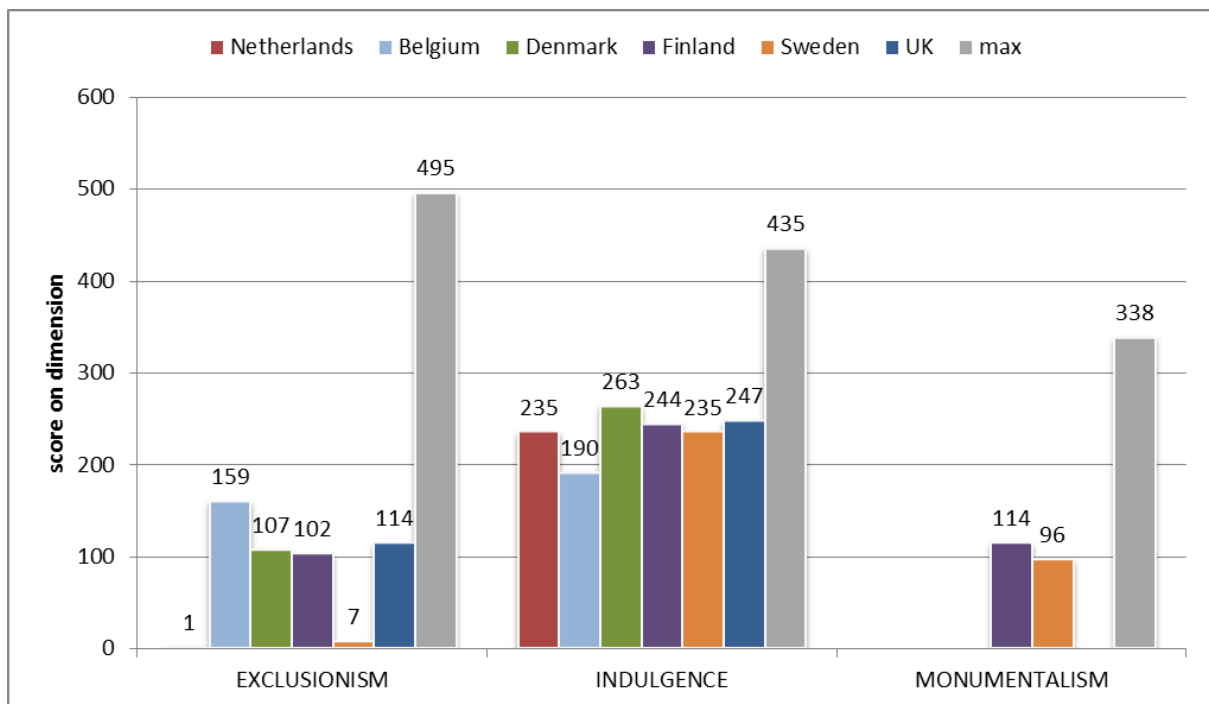


Figure 36 - Minkov's country scores for EXCL, IND, MON; source: Minkov, 2007

Inglehart is the director of world value survey, a project undertaken by a global array of social scientists that do surveys in more than 90 societies, to assess values and cultural changes over the world, in several waves. WVS is the most extensive and updated data sets for cross-cultural studies, usable to extract national dimensions. Minkov, another scholar in cross cultural studies, extracted his own cultural dimensions based on WVS questionnaires items.

Data is obtained via face-to-face interviews with 250-item questionnaires. Inglehart used factor scores based on 22 item variables, and identified two dimensions were found out, reflecting cross-national polarization between traditional versus secular-rational orientation to authority, and survival versus self-expression values.

Traditional vs secular-rational values

In traditional societies, religion and authority are important and there is deference to God, Nation and Family. There is respect and acceptance for power holders, and rejection of divorce, abortion, euthanasia and suicide. Secular-rational values, thriving in advanced industrial societies, have the emphasis on opposite preferences (less religious or with less emphasis on authority and more on the individual).

Self-expression vs Survival values

Self-expression thrives in advanced industrial countries, with high levels of security and individual autonomy. Their values shift from security, taken for granted, towards quality of life. There is tolerance of diversity, trust, civic activism, emphasis on subjective well-being and environmental protection. At the opposite pole, where there is existential insecurity and constraints in autonomy, survival values - physical and economic security, are paramount. Distrust, intolerance and xenophobia are common, and politics are authoritarian. Ethnic diversity and cultural change are seen as threats. There is little emphasis on environmental protection.

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National scores evolved during different WVS research waves during 1981-1998, as shown by a study realised by Maleki (Maleki, 2010). According to Inglehart and Baker, this is true in particular for the survival dimension, as changes in socioeconomic development led to more security and autonomy. In the traditional dimension, however, changes were not significant. But socioeconomic factors are shorter term, situational factors, and cultural aspects refer to a longer time scope and, possibly, to longer-term situations that shape values and practice.

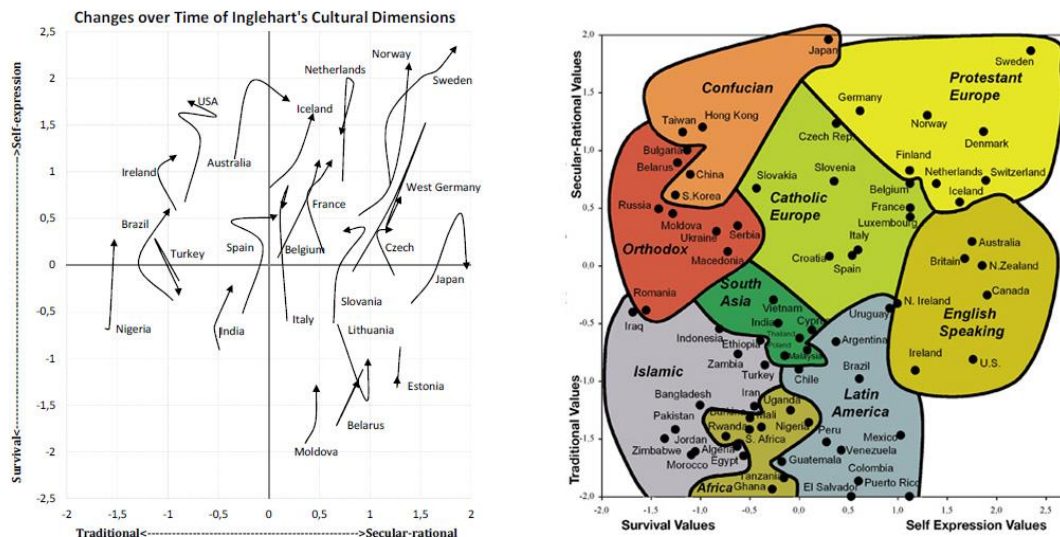


Figure 37 - Changes over time in Inglehart's cultural dimensions, Maleki, 2010; WVS cultural map - retrieved from <http://www.worldvaluessurvey.org>

Theory assessment

Among the countries included in this study, variations on both of Inglehart's dimensions were at a small scale – all of them are developed, democratic, Western-European countries. Besides Belgium and UK/Britain, most of them are included in the same cultural zone, based on Huntington's guide (1993, 1996). Although there are some numeric differences, as seen in the diagram below, the countries envisaged incline to self-expression values, and to a secular-rational orientation to authority, thus **there is little scope for questioning cultural differences based on these two dimensions**. However, the extensive questionnaire of WVS can prove useful insights for survey questions formulation, as it taps issues related to other values relevant for our criteria, like trust or environmental protection.

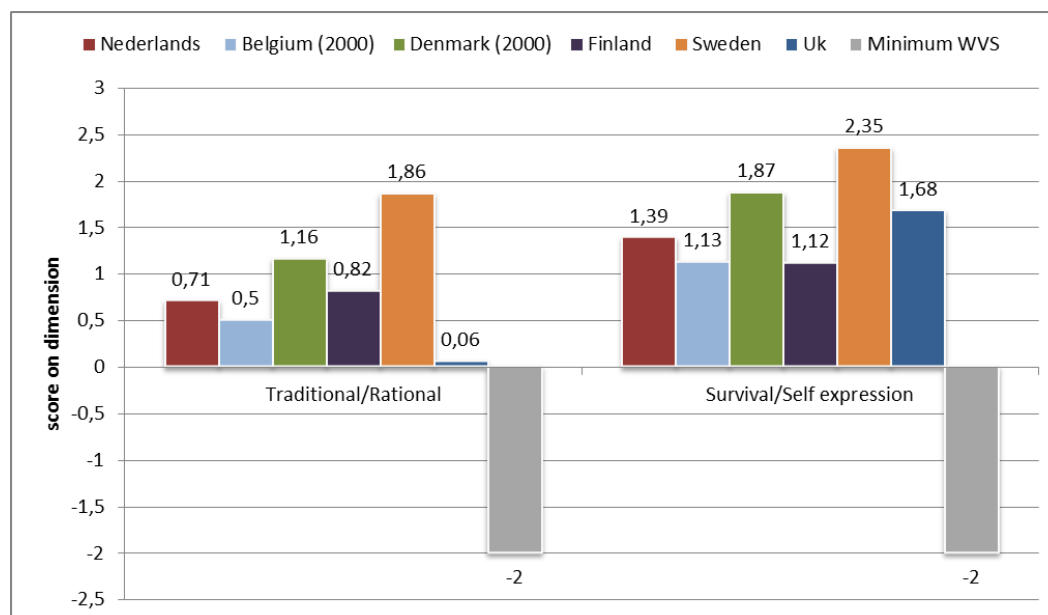


Figure 38 - WVS Scores per dimensions of target countries - 2006 (except for Belgium and Denmark – 2000; source: www.worldvaluessurvey.org)

A cross-cultural researcher and social psychologist, Shalom Schwartz, sees values as guiding principles in life, self-ordered by importance, used by actors to select and explain actions and evaluate people (Schwartz, 1999b). He acknowledges the possibility that values change within history, due to exogenous factors. His method is based on priorities of values, where values are seen as beliefs and/or reference to desirable goals, transcending actions and situations. Values serve as standards, are ordered by importance and their relative importance for each individual guides action (Schwartz, 1999b)

The theoretical framework used by Schwartz was built upon results from his own survey – SVS, containing 45 basic values to be prioritized as guiding principles in the personal life of respondents. These values appear as abstract items, their further meaning being briefly explained. Using ‘multidimensional scaling technique’ and ‘multivariate technique of smallest-space analysis’, Schwartz produced bi-dimensional maps of values, where he considered values not independent, like Hofstede, but interrelated based on compatibility, in a circular structure (see image below). This circular display allows to see how adjacent/compatible, or distant/incompatible, two cultural orientations are.

Schwartz extracted results from similar target groups (school teachers) – 122 samples from 49 nations, and tested results for robustness on college students. However, cultural value orientations were reached, like in the previous theories, by making an average of priorities in values, of matching samples of respondents.

Focusing on three structural issues that all societies confront, Schwartz pointed to seven bi-dimensional dimension poles and associated values, as follows (definitions from Schwartz, 1999a):

I. The relationship group-individual discussed two themes: whose interests prevail (the group’s or the individual’s), and if people are autonomous or embedded in their group. This resulted in the polar dimensions of conservatism versus autonomy.

Conservatism: “A cultural emphasis on maintenance of the status quo, propriety, and restraint of actions or inclinations that might disrupt the solidary group or the traditional order.” This dimension represents individuals embedded in their societal group; therefore it is also labelled **Embeddedness**. Basic Values related: forgiving, wisdom, preserving public image, devout, respect for tradition, moderate, politeness, obedient, self-discipline, honouring parents and elders, family security, national security, social order, clean, reciprocating favours.

Intellectual Autonomy: “A cultural emphasis on the desirability of individuals independently pursuing their own ideas and intellectual directions.” Basic Values related: broad mindedness, freedom, creativity, curiosity.

Affective Autonomy: “A cultural emphasis on the desirability of individuals independently pursuing affectively positive experience.” Basic Values related: a varied life, pleasure, self-indulgence, an exciting life, enjoying life.

II. To guarantee responsible behaviour that will preserve the social structure, people must manage social interdependencies, by either a hierarchical or an equalitarian system.

Hierarchy: “A cultural emphasis on the legitimacy of an unequal distribution of power, roles and resources.” Values related: humbleness, authority, wealth, social power, influence.

Egalitarianism: “A cultural emphasis on transcendence of selfish interests in favour of voluntary commitment to promoting the welfare of others.” Values related: accepting own portion in life, equality, social justice, helpfulness, honesty, responsibility, loyalty.

III. The relation of humankind to the natural and social world can be dealt by control, exploitation and mastery, or by accepting it as it is and fitting harmoniously in.

Mastery: “A cultural emphasis on getting ahead through active self-assertion.” Basic Values related: capable, ambitious, successful, daring, independent, choosing own goals, social recognition.

Harmony: “A cultural emphasis on fitting harmoniously into the environment.” Basic Values related: unity with nature, protecting the environment, a world of beauty, a world of peace.

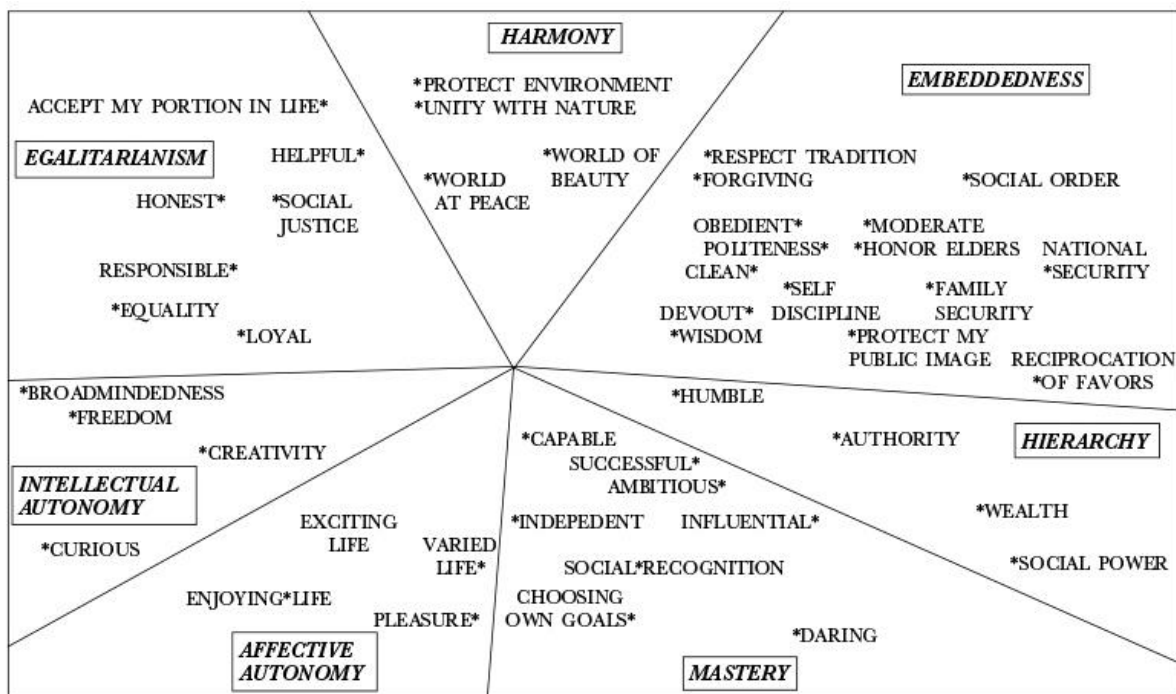


Figure 39 - Cultural dimensions and corresponding values according to Schwartz; source

Although no individual country scores could be encountered during the literature survey, the orientation of the target countries on Schwartz's value map was found. Schwartz compared in terms of importance ascribed to each value type alone national cultures. By using the co-plot technique of Raveh (1993), he represented graphically (dis)similarities among different country samples simultaneously, in a 2D space. It produces a matrix of profile differences between samples, against the 7 dimension-vectors. The value type names on the figure indicate the increased importance of that particular value (Schwartz, 1999b). In the map, reproduced below, it can be seen that the target Western European countries are grouped towards the egalitarianism, intellectual dimensions, and low on hierarchy and embeddedness. The value ascription Schwartz gives to the West Europe country group fits their character of democratic, welfare states with real concern for the environment. UK, as other English-speaking countries, is found to be scoring higher in affective

autonomy and mastery, and less in egalitarianism. Its cultural orientation is more assertive, pragmatic and entrepreneurial. Because of these differences, Schwartz considers thus ‘individualism’ an improper term to describe both North-European and English speaking cultures (Schwartz, 2009).

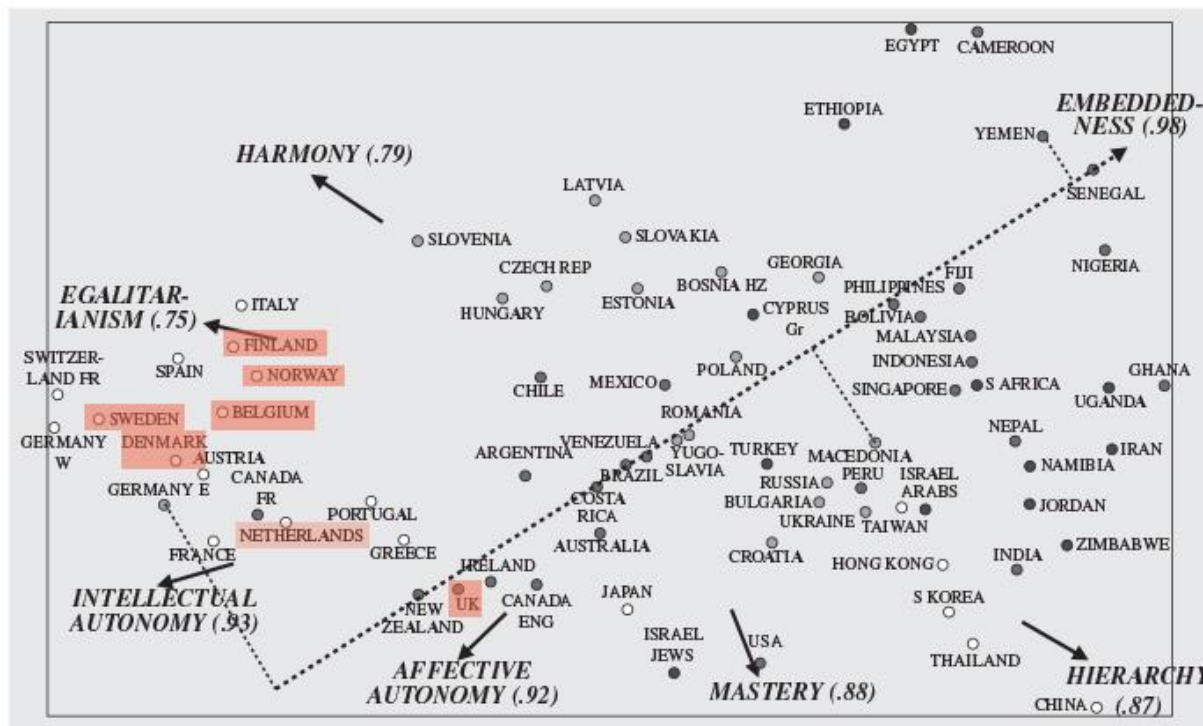


Figure 40 – Schwartz’s cultural dimensions and positioning of target countries on them; source:

Dimension	Basic value linkable to success criteria	Relevant success criteria
Egalitarianism	Responsible	16. shareholders 18. users
	Helpful (working for the welfare of others)	15. project team 17. stakeholders
	Loyal (faithful to group)	15. project team 11. political/social factors
	Equality (equal opportunity for all)	10. profitability for contractor
Mastery	Capable (competent, effective, efficient)	2.on time; 4.use of resources; 12.quality; 19.within budget
	Successful (achieving goals)	5.fit for purpose
	Social recognition (respect, approval by others)	3. Effect on image of client organization
Intellectual autonomy	Curious (interested In everything, exploring)	8.learning opportunities for client organization
Harmony	Protecting the environment	7.impact on environment, sustainability

Table 37 - Schwartz's work-related dimensions

Based on this dimension mapping of the countries, we will link the work-related values that might influence the success criteria mentioned in the concourse, by the researcher's judgement. The description of basic values given by Schwartz is too general, making them difficult to properly interpret and assess in relation to the concourse.

Theory assessment

Scores of some particular countries do not match some recognized stereotypes on the countries. For example, US are found to be more conservative than Japan (politeness, honouring elders), while Germany and Italy score at the top, respective bottom, of the scale for Affective Autonomy (Enjoying life, varied life, and exciting life). These rankings were found insensible and puzzled scientists (Heine, Lehman, Peng and Greenholtz, 2002)ADD.

More detailed background data, like the questionnaire used by Schwartz in his survey, SVS, as well as the country scores per each dimension, could not be retrieved. Because of this aspect, and since there are no major differences on their plotting on dimensions (but for UK), as mentioned above, **it was decided not to include in the interview survey questions based on these dimensions, but just consider** Schwartz's theory during the final data analysis of the q-sorts.

Via the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) research program, a network of researchers located worldwide examined links - between cultural values, societal / organizational practices, and leadership (House et al., 2002). From 1993 on, more than 150 scientists conducted a long-term series of cross-cultural studies, by delivering surveys among 62 societies (on an average of 251 respondents per country, from the middle management sector). In the Globe project, culture is seen as “shared motives, values, beliefs, identities and interpretations or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations” (House et al., 2002, p. 5).

“The GLOBE research program is directed toward filling a substantial knowledge gap concerning the cross-cultural forces relevant to effective leadership and organizational practices.” (House et al., 2002)

An important characteristic of this theory is the distinction it makes between cultural practices and cultural values. Practices are associated with societal phenomena (human development index, health, national competitiveness), whilst values, with attributes of leadership. To make this distinctions, respondents had to fill in two sets of rankings, showing not their personal view, but their perceptions of society - “as it is” (practices) and “as it should be”(values). Statistical data showed negative correlation of cultural practices and values. This was explained by the fact that societies deprived of a certain value are pursuing it more vigorously (House et al., 2002). The values to be employed in further studies should be those closer related to the issue at hand – practices for societal aspects, and values for effective leadership.

Globe project labels and describes **nine dimensions of culture**, based on previous literature study (mainly Hofstede’s theory), as follows:

- “1. Uncertainty Avoidance is defined as the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events.
2. Power Distance is defined as the degree to which members of an organization or society expect and agree that power should be unequally shared.
3. Societal Collectivism reflects the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.
4. In-Group Collectivism reflects the degree to which individuals express pride, loyalty and cohesiveness in their organizations or families.
5. Gender Egalitarianism is the extent to which an organization or a society minimizes gender role differences and gender discrimination.
6. Assertiveness is the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships.
7. Future Orientation is the degree to which individuals in organizations or societies engage in future-oriented behaviours such as planning, investing in the future, and delaying gratification.

8. Performance Orientation refers to the extent to which an organization or society encourages and rewards group members for performance improvement and excellence.

9. Humane Orientation is the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others" (House et al., 2002, p. 25)

These cultural dimensions were measured separately for values and practices and their scores for each country has been calculated and tabulated in the GLOBE book. Higher scores indicate higher range in this dimension. Response bias corrected scores for cultural scales. Range of responses varies from 3.70 up to 6.25.

Six of these cultural dimensions have their origin in Hofstede's work, whilst the remaining Gender Egalitarianism and Assertiveness substituted Hofstede's Masculinity dimension. Collectivism was measured with two, rather than one, scale. Values, attitudes and behaviors are associated with the GLOBE dimensions, just as in Hofstede's case, and Future Orientation. Values, attitudes and behaviors are associated with the GLOBE dimensions, just as in Hofstede's case. As expected, there are strong correlations found (Javidan, 2006) between most of Hofstede's dimensions and the GLOBE cultural practices (not values). Uncertainty avoidance is an exception, as they measure different aspects: tendency to avoid uncertainty by making rules (Hofstede) versus how many rules, norms and order are there in society (GLOBE).

The last three additional dimensions that were derived from Kluckhohn and Strodtbeck's work (Future orientation); Kluckhohn and Strodtbeck's, Putnam and and McClelland's ideas (Humane orientation) and from McClelland's work on need for achievement (Performance orientation).

Theory assessment

The weak points of the GLOBE study are the limited number of samples (250 per nation) compared to those employed in other theories. Also, they are criticized for their interrelations – they are derived from literature study, most from Hofstede's dimensions, some of which are divided in different aspects - "similar facets of one dimension" (Minkov, 2007)- like Uncertainty Avoidance vs. Future Orientation. Hofstede saw the exogenous definition of culture (preference on behaviour of others) as illogical for value comprehension: if one takes risk, or likes to act forceful, it does not mean that he prefers others to do the same (Hofstede, 2006). This would imply that GLOBE values are not comparable with those determined via other theories, whilst GLOBE practices could be.

Besides these aspects, one major impediment in interpreting the results is the fact that the extensive questionnaire developed in the first stage of the (ongoing) study was not yet published. Country scores on various research items are also unpublished. Furthermore, one of the countries targeted in this paper – Belgium – was not included in the study. These shortages in literature and the dimension similarities to a more extensive, documented and referenced study such as Hofstede's are aspects in favour on focusing the survey questions on the latter's original cultural dimension descriptions.

Appendix L: Cultural Question formulation process

The tables below reproduce work-related aspects of the cultural dimensions (Hofstede et al., 2005/2010). Some of these aspects from the table will be further operationalized in questions.

Power distance Index (PDI)

Small power distance	Large power distance	Relevant criteria
Hierarchy means inequity of roles, established for convenience; Privileges/status frowned upon	Hierarchy reflects inequity between high and low levels; Privileges/status symbol normal/popular	
Decentralization is popular	Centralization is popular	11 Project specific political/social factors 13 Right process is followed
Fewer supervisory personnel	More supervisory personnel	4 Efficient use of available resources 6 Good working relations with contracting partners
Narrow salary range top-bottom org	Wide salary range top-bottom org	
Managers rely on own experience and subordinates	Managers rely on superiors and formal rules	11 Project specific political/social factors 15 Satisfies needs of project team
Subordinates expect to be consulted	Subordinates expect to be told what to do	
influencing by bargaining and reasoning	influencing by formal authority and sanctions	6 Good working relation with contracting partners 11 Project specific political/social factors
Ideal boss – resourceful democrat; practical, orderly, relying on support Subordinate/superior relations pragmatic	Ideal boss – benevolent autocrat/ decision maker; good father Subordinate/superior relations emotional	15 Satisfies needs of project team
Freedom more important than equality	Equality more important than freedom	
Reward legitimate, expert power	Reward coercive, referent power	6 Good working relation with contracting partners
All should have equal rights	Power holders entitled to privileges	
Openness with information, even to subordinates	Information constrained by hierarchy	6 Good working relation with contracting partners 11 Project specific political/social factors

Table 38 - Power distance characteristics

Uncertainty Avoidance Index (UAI)

Weak uncertainty avoidance	Strong uncertainty avoidance	Relevant criteria
More changes of employer, shorter service, achievement	Less changes of employer, longer service, security	1 Continuation of client organization
No more rules than strictly necessary	Emotion need for rules, even if they don't work	12 Quality 13 Right process is followed 14 Safety
Hard working only when needed	Emotional need to be busy and inner urge to work hard	2 Delivered in time
Time is a framework for organization	Time is money	2 Delivered in time 19 Within budget
Tolerance for ambiguity and chaos	Need for precision and formalization	5 Fit for purpose 13 Right process is followed
Belief in generalists and common sense	Belief in experts and technical solutions	9 Personal growth and development
Top managers concerned with strategy	Top managers concerned with daily operations	

Focus on decision process	Focus on decision content	13 Right process is followed
Better at invention, worse at implementation	Worse at invention, better at implementation	

Table 39 - Uncertainty avoidance characteristics

Masculinity Index (MAS)

Feminine	Masculine	Relevant criteria
Relationships and quality of life are important.	Challenge, earnings, recognition and advancement are important.	
People work in order to live	People live in order to work	
More leisure time preferred over money	More money preferred over leisure time	
Management is ménage: intuition and consensus;	Management is manage: decisive and aggressive	6 Good working relations with contractors 15,16,17,18 Satisfies needs of team/ shareholders/ stakeholders/ users
Resolution of conflicts by compromise and negotiation	Resolution of conflicts by letting the strongest win	6 Good working relations with contractors 11 Project specific political/social factors
Preference for smaller organizations	Preference for larger organizations	
Humanization of work by contact and cooperation	Humanization of work by job content enrichment	9 Personal growth and development
The environment should be preserved: small is beautiful	The economy should continue growing: big is beautiful	7 Impact on the environment, sustainability
Careers are optional for both genders;	Careers are compulsory for men, and optional for women	
High share of women in professional jobs	Lower share of women in professional jobs	

Table 40 - Feminine/ masculine characteristics

Long Term Orientation Index (LTO) – now Pragmatic vs Normative (PRA)

Short-term orientation/ Normative	Long-term orientation/ pragmatic	Relevant criteria
Main work values – freedom, rights, achievement, thinking for oneself	Main work values – learning, honesty, adaptiveness, accountability, self-discipline	8 Learning opportunities for client org 9 Personal growth and development 17 Satisfies needs of stakeholders
Efforts should produce quick results	Perseverance, sustained effort towards slow results	
Concern with personal stability	Concern with personal adaptiveness	
Focus is bottom line	Focus is on market position	
Respect for traditions	Respect for circumstances	
Concern with social and status obligations, with ‘not losing face’	Willingness to subordinate oneself for a purpose; sense of shame	1 Continuation of client organization 3 Effect on professional image of client organization
Importance of this year’s profits	Importance of profits 10 years from now	
Managers and workers are in two camps	Managers and workers share aspirations	15 Satisfies needs of project team
Meritocracy, reward by abilities	Wide social and economic differences undesirable	
Personal loyalties vary with business needs	Invest in lifelong personal networks	6 Good working relation with contracting partners 15 Satisfies needs of team
Spending; Small savings quote, money for investment mutual funds	Thrifty; Large savings quote, funds available for investment (real estate)	4 Efficient use of available resources 19 Within Budget
Short term decisions, rewards by bottom line	Managers allowed time and resources to make a contribution	

Table 41 - Short vs Long term orientation characteristics