

# Harnessing Human Capital in Large Scale Projects - Towards an Elaborated Model of Organizational Climate for Project Organizations

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## **Abstract**

The aim of the present study was to uncover the important dimensions of organizational climate for project organizations, and to explore which organizational levels are most important, to use this as the basis for developing an elaborated model of organizational climate for project organizations. Interviews with employees in a project organization in the Norwegian oil sector were coded onto two models, the general and validated Organizational Climate Measure (OCM), and the best-practice project-specific Project People Survey (PPS), as well as coded onto six organizational levels. An inductive thematic analysis was conducted to capture dimensions outside the models. The results show that OCM captured 1747 statements, while PPS captured 1900, of the total 2875 statements. The two models had an overlap of 1321 statements, while 549 statements were thematically outside the models. Also, a majority of the statements were found on the levels Organization and Company. Based on the findings, a new model, the Organizational Climate Measure for Projects (OCMP), was proposed. The model was based on the general dimensions of OCM, but also included situation specific dimensions from PPS and the thematic analysis. Whether the OCMP can be statistically validated should be the aim future studies.

Organizing work in matrix- and project organizations has become increasingly popular the last decades, and has been a way for companies to accomplish unique outcomes with less time and resources than earlier. The term matrix organization refers to a mixed organizational design where the traditional vertical hierarchy of the functional organization is overlaid by a horizontal structure of project organizations. The employees work in a structure of multiple lines of authority, responsibility, and accountability (Ford & Randolph, 1992). The project organizations are temporary endeavors undertaken to create a new product or service (Project Management Institute, 2008) and human, material, and financial resources are organized to undertake this unique and novel scope of work. Projects are usually subject to uncertainty and need for integration with the functional organization (Turner & Müller, 2003). They are also subject to severe time, budget and quality constraints (Westerveld, 2003). Cost and staffing varies throughout the life cycle of projects, and so does the related risks. The ability to make changes without significantly impacting costs is high in the beginning of the project, but constantly decreases towards the completion of the project (Project Management Institute, 2008). The project management process therefore needs to be flexible, goal oriented, and staged (Turner & Müller, 2003). The functional organization and the project organizations differ primarily in that functional organizations are ongoing and follow the organizations strategic plans, while projects, along with members, are temporary and terminate when its goals and objectives are met (Project Management Institute, 2008).

Organizing work in projects has gained a lot of attention, and there are numerous examples of extremely large-scale projects like the Space Shuttle program, the Human Genome Project, and the building of the Langede gas pipeline between Norway and the UK. These projects can have a great positive impact on economic and social development. However, these projects also attract a lot of public attention because of the risks related to their substantial impact on people, environment, and budgets. The risks put a lot of pressure on individuals and teams to always perform at their very best. Mistakes can have fatal outcomes, and the skills and competence of employees show every sign of assuming more and more importance as determinants of individual, as well as organizational, performance. Consequently, managing human capital is of great importance in organizations as harnessing their human capital potential in many cases will determine if a project “make it or break it”. In project management the trend is to focus on the technical issues of the project, when in fact, several problems can be traced back

to the organizational culture and other “soft” issues (Sharma & Gupta, 2012). Several examples are found where the organizational context negatively affects the behavior of its members.

An international example is the Deepwater Horizon explosion in April 2010. The explosion led to one of the greatest oil spills in history that killed several people, and resulted in extensive environmental damages, huge economic losses, and a lot of negative publicity. A report by the Center of Catastrophic Risk Management at the University of California Berkeley concluded that several organizational, as well as technical issues, lead to the disaster. The organizational issues were related to workers not following required or accepted operations guidelines, poor communication between operational departments, unawareness of risks, extreme cost and time pressure, lack of appropriate selection and training of personnel, and poor change management (Deepwater Horizon Study Group, 2011).

A recent example in Norway is the Gullfaks incident in May 2010. Between November 2009 and May 2010, a well experienced several control incidents. The incidents were investigated on the initiation of the Norwegian Petroleum Safety Authority and summarized in a report stating that the underlying causes of the near disaster were largely related to the organizational context. The problems were similar to those experienced at Deepwater Horizon. The problems were related to workers not following the governing systems and guidelines, poor interface management with vendors, poor management and decision-making, cost and time pressure, lack of integration between disciplines, poor communication and documentation, discontinuity of personnel, and lack of competence. Only chance prevented the final and most serious incident on May 19, 2010 from becoming a full-scale disaster (Austnes-Underhaug et al., 2011). Although the worst personnel and environmental disasters were prevented, the near disaster caused serious economic problems.

In both examples, the organizational context lead to fatal consequences, and being able to identify the dimensions that affect how project employees behave is of critical importance in projects. Numerous models have been developed in organizational psychology to explain the relationship between the content and context of work and the behavior of employees. However, what term to use when explaining these conceptually integrated dimensions of organizational characteristics has been a problem for many researchers. One term that is often used in the literature is organizational climate. Forehand and von Haller Gimler compare organizational climate with personality and define it as “the set of characteristics that describe an organization

and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization” (Forehand & Von Haller, 1964, p. 361).

Positive organizational climates have been shown to have positive outcomes on organizational success (Patterson et al., 2005). However, there is to this date no consensus regarding how organizational climate should be measured and which dimensions should be included when measuring. Specifically, the debate on which dimensions to include revolve around whether general models capture the important dimensions of organizational climate in different work settings or that situation-specific models are needed, in for example project work. Using the analogy of Forehand and von Haller Gimler (1964), one asks whether there are universal personality traits by which one can characterize people.

Schneider and Reichers (1983), among others, critique general models, and argue that measuring organizational climate without attaching a referent to a specific setting is meaningless. They base their argumentation on the fact that people in organizations encounter several events, practices, and procedures that are perceived in related sets. This implies that there are several climates in every work setting that are there for a specific “something”, e.g. service or safety. This argument has resulted in a recent trend in the climate research with the emergence of situation-specific climate models (James et al., 2008) in several settings, like service (Jong, Ruyter, & Lemmink, 2004), safety (Flin, Mearns, & Bryden, 2000), creativity and innovation (Ekvall, 1996), and team climate (Anderson & West, 1998) among others.

On the other hand, research in organizational psychology repeatedly shows that organizations are not as unique as they tend to believe they are. Many dimensions of organizational climate will therefore likely apply to several organizations across different settings. Van Velhoven and colleagues argue that when studying a new and specific sample, a general model would be the best starting point for developing a situation-specific measure (van Veldhoven, Taris, de Jonge, & Broersen, 2005). Patterson and colleagues (2005) argue for the importance of general models. They acknowledge that situation-specific measures contribute to precise information for use in specific settings, but argue that global measures are important to get an overall picture of the whole organization and to highlight subcultures in the organization. They therefore argue that both approaches, general and situation-specific, are valid as a basis for the investigation of work environment. However, there are to this date few well-validated

measures of organizational climate, and no validated measures were found specifically for project work.

To uncover important dimensions of organizational climate in project organizations, two models were used. The first is the Organizational Climate Measure (OCM) by Patterson and colleagues (2005). OCM should be relevant because it is a general measure argued to be valid across all work contexts. The second model is the best-practice project-specific model Project People Survey (PPS). PPS should be relevant because it is developed in the company under study to relate specifically to the challenges of matrix- and project organizations.

OCM is a global multidimensional measure of organizational climate developed by Patterson and colleagues (2005) to overcome the problems of validity, lack of theoretical basis, and ambiguity regarding level of analysis, that has characterized the organizational climate research (Anderson & West, 1998; Patterson et al., 2005; Schneider & Reichers, 1983). To generate the dimensions of OCM, Patterson and colleagues (2005) reviewed organizational climate literature from 1960 to 2000. The dimensions selected were those most frequently used in the literature. Also, the dimensions had to be thematically inside the Competing Values Model (CVM) framework, as CVM was viewed as a framework of the values that underlie organizational climate. CVM is a theoretical model developed in a series of articles by Quinn and colleagues (Quinn & McGrath, 1982; Quinn & Rohrbaugh, 1983), originally developed to identify and structure organizational effectiveness criteria. Quinn and colleagues (1983) propose that the criteria found in the literature should be organized along the organizational dimensions of flexibility versus control and internal versus external orientation, to form the four quadrants: Human Relations, Open Systems, Rational Goals, and Internal Process.

Based on the selected dimensions, a questionnaire was developed and tested in 55 manufacturing organizations. Using confirmatory factor analysis, Patterson and colleagues (2005) ended up with 17 dimensions, distributed between the four quadrants of CVM. They argue that the model has acceptable psychometric properties, and that the findings indicate concurrent and predictive validity. They further argue that the 17 dimensions constitute a robust and inclusive measure of organizational climate applicable across a large range of work settings and at all employee levels. Studies have found OCM to be relevant to a knowledge-intensive work setting (Hønsen, 2010) and an innovative work setting (Hoff, Flakke, et al., 2009), indicating that OCM is applicable across various settings. Patterson and colleagues (2005) focus on the organizational

level of analysis, arguing that individual perceptions of work environment can be aggregated and treated as a higher-level construct shared between members of the organization.

PPS, on the other hand, is a best practice survey developed in the company under study. It was developed to respond specifically to the challenges of a matrix organization, and can therefore be viewed as a measure of the organizational climate specific to project organizations. PPS is based on a best practice approach and has been developed and improved over several years. It can therefore be argued that this measure has a high relevance to project organizations. However, the measure is not validated, lacks a theoretical basis, and the dimensions are not developed to focus on any specific organizational level.

The two models, OCM and PPS, both have characteristics that make them relevant to project organizations. However, as general models have been criticized for lacking important situation-specific dimensions, and that the situation-specific model in the study lacks a theoretical foundation, it is assumed that there are dimensions relevant to project organizations that are not covered by any of the two models.

In addition to finding the important dimensions that affect employee behavior in project organizations, it is vital for companies to know at which organizational levels the dimensions are located in order for possible interventions to be made at the right level. Projects are increasingly organized in a matrix as a part of the functional organization (Meredith & Mantel, 2012), and it is therefore important to acknowledge that projects and project management take place in an environment broader than that of just the project. Work therefore needs to be carried out in alignment with the established practices and procedures of the company, as well as those specific to the project organization (Project Management Institute, 2008). The distinction between levels is therefore even more crucial in project organizations. However, models of organizational climate often mix the dimensions at different levels of the organization (Hoff, 2008).

### **Present study**

The aim of the present study is to uncover the important dimensions of organizational climate for project organizations, and to explore which organizational levels are most important, to use this as the basis for developing an elaborated model of organizational climate for project organizations. This is examined through interviews with employees in a project organization in the Norwegian oil sector. Their free reflections are used as the standard of what are important

aspects of the organizational climate for projects. The M-SWOT methodology is used, coding the interview statements onto established models. Two models believed to capture salient features of organizational climate in projects are used. The general OCM is used because it is argued to be valid across all work settings, and the situation-specific PPS is used because it is developed specifically for projects. Also, what is thematically outside the two models is explored.

Most climate research has used quantitatively based questionnaires to develop measures of organizational climate (Patterson et al., 2005). A disadvantage of this approach is that it yields little theoretical progress (Bakker & Demerouti, 2007), and that the dimensions are pre-defined (Sparks & Cooper, 1999). Pre-defined dimensions serve as a trigger for the informants, while in fact these categories may not be relevant to the context studied (Hoff, Flakke, et al., 2009). Qualitative measures, on the other hand, enable identification of new, important dimensions (Sparks & Cooper, 1999). M-SWOT is a qualitative method based on un-assisted reflection through open questions and therefore does not pre-define any dimensions up front. The idea behind M-SWOT is to assess the organization by mapping the informants' reflections onto specific models after the interviews are conducted. This is done by extracting meaningful statements (see methods) from the transcribed interviews and coding each statement according to established models (Hoff, Flakke, et al., 2009). The statements not accounted for by the models give valuable information about dimensions other than the ones defined by the models that are relevant to the setting. By using this method, the descriptive reflections of the informants are seen in relation to the normative dimensions found in OCM and PPS to see if the models capture what project workers regard important in relation to performing their work.

As Patterson and colleagues (Patterson et al., 2005) critique, another common weakness of quantitative work environment research is that the respondents have not been instructed to focus on a specific organizational level. This ambiguity can lead individuals to describe different parts of the organization, some assuming the focus is on group level and others on the organizational level, making it hard to compare the data. A strength of M-SWOT is the possibility of categorization of all statements on organizational levels, in addition to categorization on organizational climate models. The questions asked are open, and do not serve as a trigger for which organizational level the informant should focus on. This gives information about which level is most frequently mentioned in relation to project work, and also which level the informants' attribute to the different dimensions of organizational climate. Most researchers

using the M-SWOT methodology have used four organizational levels, Individual, Group, Leadership, and Organization (IGLO) (Hoff, Straumsheim, Bjørkli, & Bjørklund, 2009; Lone et al., 2011). In project work, we propose using six organizational levels. We add the level Company, as project organizations are usually organized in matrix organizations (Meredith & Mantel, 2012). In other words, we have a project organization within a functional company. Adding a company level is therefore necessary, as it is important to distinguish between the dimensions affecting work environment at the organizational (project) level and at the company level. We also propose to add an External level because project organizations increasingly cooperate with external third parties (Project Management Institute, 2008). Adding an external level therefore seemed necessary. In sum, six organizational levels are included in this study: Individual, Group, Leadership, Organization, Company, and External (IGLOCE).

### **Research Questions**

The aim of the present study is to develop an elaborated model of organizational climate for project organizations. To develop this model, there are two important aspects to consider:

1. Which dimensions of organizational climate are most important for project organizations?
2. Which organizational levels are most important in regards to the organizational climate in project organizations?

## Methods

### Organization and Participants

The organization studied is a project organization within a large, private Norwegian company. The company is organized as a matrix organization, and this particular project is organized in a balanced matrix. A balanced matrix refers to an organizational structure where the project manager only has moderate authority and therefore reports to a functional manager (Ford & Randolph, 1992). The project is currently in the execution phase, carrying out the project plan, as the planning and concept was finished and approved in 2010. About half of the employees have been working on the project since the planning phase, whereas the other half was changed between the planning- and execution phase. The execution phase is scheduled to end with a hand-over to operations in 2014. The project organization works closely with several vendors in the execution phase. The organization is located in several geographical areas in Norway and abroad, and the project organization encompasses about 140 employees. The project manager gave his/her consent, and ensured free access to informants.

A sample was strategically selected based on level in the project organization and geographical dispersion. All informants received a written invitation from the project manager by e-mail (see Appendix A) and the project secretary made all appointments. A week before the interviews, the informants received an e-mail from the author with information about the four main interview questions and information about the interview setting (see Appendix B). The sample consisted of a total of 18 informants (15 male, 3 female) from five different levels and three geographical areas.

### Interviews

Qualitative interviews were carried out at the informants' work place. The interviews were semi-structured, and involved open questions based on the SWOT format (Strengths, Weaknesses, Opportunities, and Threats) (Hoff, Flakke, et al., 2009) that were asked to obtain information concerning the informants' reflection on project work. The interview guide consisted of four main questions:

*“Please tell me about what is going well in relation to the project work here, we call this the strengths of the project work.”*

*“Please tell me about what is not going so well in relation to the project work here, we call this the weaknesses of the project work.”*

*“Please tell me about what you consider to be the possibilities of improving the project work here, we call this the opportunities of the project work.”*

*“Please tell me about what you consider to be the obstacles to improving the project work here, we call this the threats of the project work.”*

The questions above encourage free reflection on the organization’s present strengths and weaknesses, and the organization’s opportunities and threats regarding future work. Additional information was obtained by encouraging informants to respond to supplementary questions, such as: “Are there any other strengths that you see in relation to the project work?”, “You mentioned..., could you elaborate?”.

The interviews were conducted Oct-Nov 2011, and were equally divided between the author and a fellow student. The interviewer is the primary research tool in qualitative research, and training is therefore important (Kvale, Brinkmann, Anderssen, & Rygge, 2009). Before interviewing, both students attended 35 hours of interview training with Professor Roald Bjørklund at the University of Oslo following the PEACE model (Clarke & Milne, 2001). The average duration of the interviews was 48 min, and ranged from 26 min to 76 min (SD=14,52).

### **Data Treatment and Analysis**

**Transcription.** The interviews were tape recorded and later transferred to a PC. The interviews were equally divided and transcribed by the author and two fellow students. Transcription guidelines were formed in advance, as the transcriptions need to entail the same level of detail in order to equally compare and analyze the interviews (Kvale et al., 2009). All interviews were transcribed verbatim, only excluding noises such as “ehm” and “hmm”. After the transcription was complete, all transcriptions were crosschecked. One student’s transcriptions notably varied from the two others in the level of detail, and those interviews were therefore re-transcribed.

**Unitizing.** The interview transcripts were unitized, a systematic conceptualization of statements, which provided an opportunity for quantification of the interview data (Kvale et al., 2009). The author and a fellow student equally divided all transcriptions for unitizing after making a unitizing guide. Transcripts were unitized in a thematic way with focus on meaning and

content (Krippendorff, 1980), and therefore, in this study a statement was defined as “the (smallest) meaningful unit that represent one idea or one information unit. A statement should, to the extent possible, be comprehensive by itself to make sure it is understandable and meaningful, but contain only one piece of information, idea, or evaluation”. The reliability of unitizing was assessed using a variation of percentage of agreement on presence developed by Sasan Zarghooni (2011). After co-coder training, the percentage of agreement on presence was 74%. There is no standard against which to compare this, but the researchers found this an acceptable level of agreement.

**Coding.** The statements were transferred to PASW statistics for coding. Following M-SWOT (Hoff, Flakke, et al., 2009), every statement was tested to see if they could fit onto a predefined category in each of the three models, OCM, PPS, and IGLOCE. All interviews were randomly divided, and coded onto PPS and IGLOCE by the author and fellow student. The author alone coded all interviews on OCM. The models were coded according to the definitions given below (for example statements on all models see Appendix C). Definitions of the OCM Dimensions are based on Patterson et al (2005):

*Autonomy:* designing jobs in ways, which give employees wide scope to do their work

*Integration:* the extent of interdepartmental trust, cooperation, and sharing of information in the project organization and company

*Involvement:* comprised of *Participation:* employees have considerable influence over decision-making and *Communication:* sharing of information throughout the organization

*Supervisory Support:* the extent to which employees experience support and understanding from their immediate supervisor

*Training:* a concern with developing employee skills, competence, and knowledge

*Welfare:* the extent to which the organization values and cares for employees

*Formalization:* a concern with formal rules and procedures

*Tradition:* the extent to which established ways of doing things are valued by the organization and individuals, no or slow change

*Flexibility and Innovation:* an orientation toward change and the extent of encouragement and support for new ideas and innovative approaches

*Outward Focus*: the extent to which the organization is responsive to and understands the needs of the customer, vendor and the marketplace in general

*Reflexivity*: a concern with reviewing and reflecting upon own objectives, strategies, and work processes, in order to adapt to the wider environment

*Clarity of Organizational Goals*: a concern with clearly defining the goals, vision and strategy of the organization

*Efficiency*: the degree of importance placed on employee efficiency and productivity at work through good systems, organization, planning etc.

*Effort*: how hard/enthusiastically people in organizations work towards achieving goals

*Performance Feedback*: the measurement and feedback of job performance

*Pressure to Produce*: the extent of pressure for employees to meet targets e.g. time pressure, work pressure, work load

*Quality*: the emphasis given to quality procedures and products

The PPS dimensions were defined based on the topic of each category in the survey:

*Competence*: a concern with present knowledge, competence, skills, and experience

*Development*: the possibility of developing employee knowledge, competence, and skills

*Goals*: clarity and communication of project goals

*Feedback*: if and how feedback is given

*Leadership*: a concern with how leadership and management is conducted

*Autonomy*: having influence over ones work situation

*Collegial Support*: help and support among colleagues in the project

*Roles and Responsibilities*: clearly defined roles and responsibilities for project and functional organization

*Work Pressure*: a pressure to produce and meet deadlines, and possible health problems related to the work situation

*Work Life Balance*: the relation between work and private life, especially with regards to commuting

*Governing System*: the emphasis given to governing documentation, principles, policies, processes, and requirements from the project organization and the company

*Change Agenda:* a concern with delivering and constantly improving in relation to time, cost, quality, and HSE

*Interface External:* a concern with the vendor organizations work situation and how to develop and cooperate with them

*Interface Internal:* the sharing of information, knowledge, and expertise with other departments in the company

*Communication:* a concern with communication within the project

*Ethical Awareness:* an awareness of ethical considerations regarding the project, and respect between individuals within the project

*Work Environment:* a concern with employee well-being

The first four levels of IGLOCE are based on the definitions by Lone and colleagues (2011), and the two last levels are defined according to project management literature:

*Individual:* Individual perceptions, feelings, and opinions of employees

*Group:* Interaction and cooperation in work groups, teams, and departments

*Leadership:* Behavior of immediate manager, project management, top management, or other leaders

*Organization:* Practices, strategies, organizational goals, and the physical environment of the project organization

*Company:* Practices, strategies, goals, and values of the whole company

*External:* Practices, strategies, organizational goals, and the physical environment of the external vendors, suppliers, customers, and market place

In addition to the model dimensions, a residual category was added to all three models and included the statements not accounted for by the respective model. Inter-rater reliability was tested on a random interview for all three models, using Cohen's Kappa (see results). Inter-rater reliability was tested for PPS and IGLOCE to ensure that the two coders had the same understanding of the model in order not to systematically affect the data. OCM was tested for inter-rater reliability in order to ensure that the author did not have a unique interpretation of the model and its dimensions.

**Statistical analysis.** In order to conduct statistical analyses, the number of statements for each of the 18 informants was aggregated. The first research question, of which dimensions of organizational climate are important to project organizations, was investigated using paired t-tests and thematic analysis (see below). The second research question, of which organizational levels are important in regards to organizational climate in project organizations, was investigated using multivariate tests (Wilk's Lambda) to examine the interaction between the organizational climate models and organizational levels. MANOVA was used as the data violated the assumption of sphericity, and these tests are known to be more robust than ANOVAs (Field, 2009). Effect sizes were calculated using partial eta squared. Cohen (1988) classifies effect sizes smaller than .01 as a small effect, between .01 and .06 as a moderate effect, and effect sizes larger than .14 as a large effect. Several post-hoc tests were computed. To reduce the possibility of Type-I errors Bonferroni correction with alpha level .05 was used.

**Thematic analysis.** A thematic analysis was conducted to explore the statements that were thematically outside OCM and PPS. A theme is defined as "something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006, p. 10). In this context, the residual statements that represented a pattern were coded into categories that had a relation to organizational climate. The difference between the inductive thematic analysis of residuals and the preliminary coding process onto established models is that the preliminary coding involves classification onto pre-defined categories, whereas inductive thematic analysis involves building new categories bottom-up, based on the content of the residual.

### **Ethical Considerations**

All informants were informed before the interview that participation was voluntary, that they could withdraw their participation at any time, that the interview was tape-recorded, and that their anonymity would be ensured. All informants signed an informed consent (see Appendix D). The Norwegian Social Science Data Service has approved the study.

## Results

### Descriptive Statistics

The transcripts of the interviews (N=18) were unitized into a total of 2875 meaningful statements (M = 160.70, SD = 74.41) and were coded onto OCM, PPS, and IGLOCE.

**OCM.** A total of 1747 (60.75%) statements were coded onto the 17 dimensions of OCM. The distribution is presented in Table 1. Statements were distributed across all 17 dimensions. The highest number of statements was identified in the category Outward Focus with a total of 300 (10.43%) statements. Next, the category Integration captured 213 (7.41%) statements and the category Efficiency captured 199 (6.92%) statements. The lowest number of statements was found in the category Supervisory Support with a total of 12 (0.42%) statements. Inter-rater reliability was calculated for one random interview and a Cohen's kappa of .62 was achieved. According to Landis and Koch's (1977) article on observer agreement on categorical data, agreement between .61 and .80 is substantial.

Table 1

*Distribution of Statements on OCM (N=18)*

| Category                            | Count | Percent | M     | SD    |
|-------------------------------------|-------|---------|-------|-------|
| 1. Autonomy                         | 55    | 1.91    | 3.06  | 3.89  |
| 2. Integration                      | 213   | 7.41    | 11.83 | 8.64  |
| 3. Involvement                      | 104   | 3.62    | 5.78  | 6.13  |
| 4. Supervisory Support              | 12    | 0.42    | 0.67  | 0.97  |
| 5. Training                         | 53    | 1.84    | 2.94  | 3.86  |
| 6. Welfare                          | 98    | 3.41    | 5.44  | 6.78  |
| 7. Formalization                    | 165   | 5.74    | 9.17  | 8.98  |
| 8. Tradition                        | 127   | 4.42    | 7.06  | 7.88  |
| 9. Flexibility and Innovation       | 49    | 1.70    | 2.72  | 6.61  |
| 10. Outward Focus                   | 300   | 10.43   | 16.67 | 14.83 |
| 11. Reflexivity                     | 95    | 3.30    | 5.28  | 4.56  |
| 12. Clarity of Organizational Goals | 48    | 1.67    | 2.67  | 2.93  |
| 13. Efficiency                      | 199   | 6.92    | 11.06 | 7.83  |
| 14. Effort                          | 34    | 1.18    | 1.89  | 2.35  |
| 15. Performance Feedback            | 32    | 1.11    | 1.78  | 2.88  |
| 16. Pressure to Produce             | 106   | 3.69    | 5.89  | 6.94  |
| 17. Quality                         | 57    | 1.98    | 3.17  | 3.50  |
| Total OCM                           | 1747  | 60.75   | 5.71  | 5.86  |
| Residual                            | 1128  | 39.23   | 62.67 | 34.02 |
| Total                               | 2875  | 100.00  | 8.88  | 7.42  |

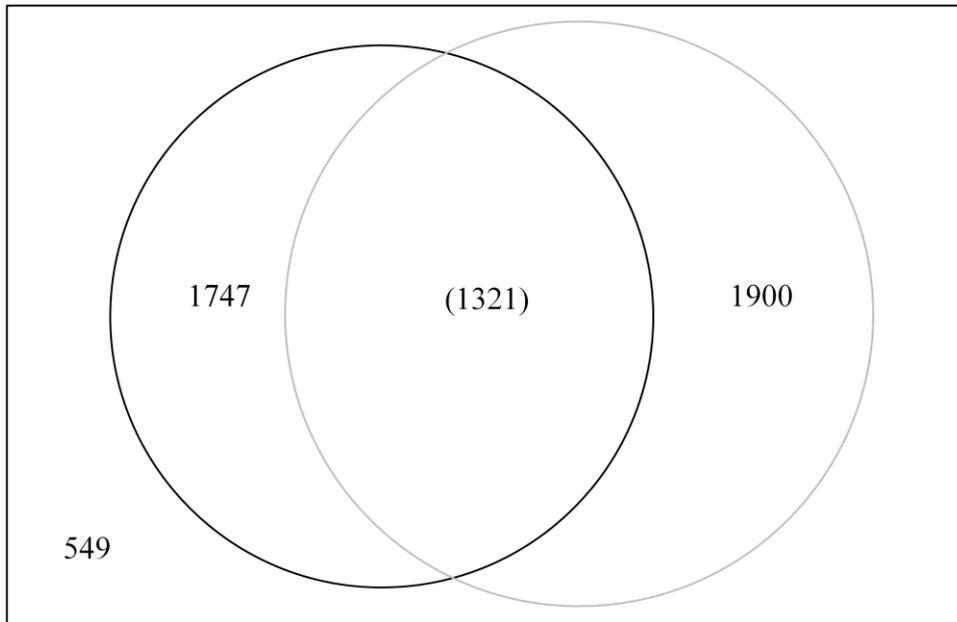
**PPS.** A total of 1900 (66.09%) statements were coded onto the 17 dimensions of PPS. The distribution is presented in Table 2. Statements were distributed across all 17 dimensions. The highest number of statements was identified in the category Interface External with a total of 387 (13.46%) statements. Next, the category Change Agenda captured 263 (9.15%) statements and the category Interface Internal captured 230 (8.00%) statements. The lowest number of statements was found in the category Ethical Awareness with a total of 14 (0.49%) statements. Inter-rater reliability was calculated for one random interview and a Cohen’s kappa of .79 was achieved.

Table 2  
*Distribution of Statements on PPS (N=18)*

| Category                      | Count | Percent | M     | SD    |
|-------------------------------|-------|---------|-------|-------|
| 1. Competence                 | 106   | 3.69    | 5.89  | 6.10  |
| 2. Development                | 55    | 1.91    | 3.06  | 4.93  |
| 3. Goals                      | 42    | 1.46    | 2.33  | 3.05  |
| 4. Feedback                   | 35    | 1.22    | 1.94  | 3.69  |
| 5. Leadership                 | 86    | 2.99    | 4.78  | 6.35  |
| 6. Autonomy                   | 42    | 1.46    | 2.33  | 3.29  |
| 7. Collegial Support          | 20    | 0.70    | 1.11  | 1.88  |
| 8. Roles and Responsibilities | 89    | 3.10    | 4.94  | 7.56  |
| 9. Workload                   | 75    | 2.61    | 4.17  | 5.98  |
| 10. Work Life Balance         | 30    | 1.04    | 1.67  | 2.63  |
| 11. Governing System          | 161   | 5.60    | 8.94  | 9.88  |
| 12. Change Agenda             | 263   | 9.15    | 14.61 | 14.60 |
| 13. Interface External        | 387   | 13.46   | 21.50 | 20.49 |
| 14. Interface Internal        | 230   | 8.00    | 12.78 | 9.45  |
| 15. Communication             | 144   | 5.01    | 8.00  | 9.36  |
| 16. Ethical Awareness         | 14    | 0.49    | 0.78  | 2.34  |
| 17. Work Environment          | 121   | 4.21    | 6.72  | 7.45  |
| Total PPS                     | 1900  | 66.09   | 6.21  | 7     |
| Residual                      | 975   | 33.91   | 54.17 | 30.47 |
| Total                         | 2875  | 100.00  | 8.87  | 8.31  |

**OCM and PPS.** PPS captured 153 more statements than OCM. A graphical representation is shown in Figure 1. As seen in Table 3, there are several overlaps between the dimensions of the two models. Autonomy (OCM) has an overlap with Autonomy (PPS), Integration (OCM) overlaps with Interface External (PPS), Involvement (OCM) with Communication (PPS), Training (OCM) with Development (PPS), Welfare (OCM) with Work

Environment (PPS), Formalization (OCM) with Governing System (PPS), Outward Focus (OCM) with Interface External (PPS), Clarity of Organizational Goals (OCM) with Goals (PPS), Performance Feedback (OCM) with Feedback (PPS), Pressure to Produce (OCM) with Workload (PPS), and finally Quality (OCM) overlaps with Change Agenda (PPS).



*Figure 1.* Graphical Representation of Statements on OCM and PPS. Box = Total statements. Black circle = OCM statements. Grey Circle = PPS Statements.

Table 3

*Crosstab of OCM and PPS (N=18)*

| OCM          | PPS |           |           |           |    |           |    |    |           |    |           |           |            |            |           |    |           | R   | Total |
|--------------|-----|-----------|-----------|-----------|----|-----------|----|----|-----------|----|-----------|-----------|------------|------------|-----------|----|-----------|-----|-------|
|              | 1   | 2         | 3         | 4         | 5  | 6         | 7  | 8  | 9         | 10 | 11        | 12        | 13         | 14         | 15        | 16 | 17        |     |       |
| 1            | 1   | 0         | 0         | 0         | 3  | <u>32</u> | 0  | 3  | 0         | 0  | 2         | 0         | 1          | 8          | 0         | 0  | 1         | 4   | 55    |
| 2            | 7   | 1         | 0         | 0         | 1  | 0         | 3  | 7  | 1         | 0  | 2         | 0         | 11         | <u>145</u> | 7         | 0  | 0         | 28  | 213   |
| 3            | 0   | 0         | 1         | 0         | 2  | 0         | 1  | 1  | 0         | 0  | 0         | 4         | 4          | 5          | <u>75</u> | 1  | 2         | 8   | 104   |
| 4            | 0   | 0         | 0         | 3         | 1  | 0         | 2  | 1  | 1         | 0  | 0         | 0         | 0          | 0          | 0         | 0  | 0         | 4   | 12    |
| 5            | 0   | <u>44</u> | 0         | 1         | 0  | 0         | 0  | 0  | 0         | 0  | 0         | 1         | 1          | 1          | 2         | 0  | 0         | 3   | 53    |
| 6            | 0   | 0         | 0         | 0         | 1  | 0         | 0  | 0  | 0         | 1  | 0         | 3         | 1          | 1          | 0         | 0  | <u>80</u> | 11  | 98    |
| 7            | 2   | 0         | 0         | 0         | 1  | 2         | 0  | 3  | 0         | 1  | <u>97</u> | 7         | 9          | 5          | 1         | 0  | 0         | 37  | 165   |
| 8            | 1   | 0         | 0         | 0         | 5  | 0         | 0  | 0  | 1         | 0  | 5         | 24        | 13         | 9          | 1         | 1  | 0         | 67  | 127   |
| 9            | 0   | 1         | 1         | 0         | 8  | 0         | 0  | 0  | 0         | 0  | 4         | 9         | 1          | 2          | 0         | 0  | 0         | 23  | 49    |
| 10           | 3   | 0         | 0         | 0         | 0  | 0         | 0  | 0  | 0         | 0  | 6         | 5         | <u>227</u> | 1          | 2         | 0  | 2         | 54  | 300   |
| 11           | 2   | 0         | 1         | 2         | 6  | 2         | 0  | 3  | 0         | 0  | 5         | 21        | 13         | 1          | 14        | 0  | 0         | 25  | 95    |
| 12           | 1   | 1         | <u>36</u> | 0         | 1  | 0         | 0  | 0  | 0         | 0  | 0         | 2         | 2          | 0          | 0         | 0  | 0         | 5   | 48    |
| 13           | 0   | 0         | 1         | 0         | 1  | 1         | 1  | 5  | 2         | 5  | 15        | 12        | 22         | 12         | 4         | 0  | 3         | 115 | 199   |
| 14           | 6   | 0         | 0         | 0         | 3  | 0         | 0  | 0  | 0         | 1  | 0         | 2         | 0          | 0          | 0         | 0  | 5         | 17  | 34    |
| 15           | 0   | 0         | 0         | <u>26</u> | 1  | 0         | 0  | 0  | 1         | 0  | 0         | 0         | 0          | 1          | 1         | 0  | 0         | 2   | 32    |
| 16           | 1   | 0         | 0         | 0         | 0  | 1         | 1  | 0  | <u>62</u> | 4  | 1         | 19        | 0          | 0          | 2         | 0  | 1         | 14  | 106   |
| 17           | 0   | 0         | 1         | 0         | 0  | 0         | 0  | 0  | 0         | 0  | 1         | <u>39</u> | 5          | 1          | 0         | 0  | 1         | 9   | 57    |
| <b>R</b>     | 82  | 8         | 1         | 3         | 52 | 4         | 12 | 66 | 7         | 18 | 23        | 115       | 77         | 38         | 35        | 12 | 26        | 549 | 1128  |
| <b>Total</b> | 106 | 55        | 42        | 35        | 86 | 42        | 20 | 89 | 75        | 30 | 161       | 263       | 387        | 230        | 144       | 14 | 121       | 975 | 2875  |

Note: The numbers in the table refer to the numbers in Table 1 (OCM - vertical) and Table 2 (PPS - horizontal). The OCM dimensions where <50% of the statements overlap with dimensions of PPS are highlighted.

**IGLOCE.** A total of 2837 (98.68%) statements were coded onto the six levels of IGLOCE. The distribution is presented in Table 4. The highest number of statements was found on the Organizational level with 1325 (46.09%) statements, before the Company level with 852 (29.63%) statements. The lowest number of statements was found on the Leadership level with

113 (3.93%) statements. Inter-rater reliability was calculated for one random interview and a Cohen's kappa of .79 was achieved.

Table 4

*Distribution of Statements on IGLOCE (N=18)*

| Category        | Count | Percent | M     | SD    |
|-----------------|-------|---------|-------|-------|
| 1. Individual   | 179   | 6.23    | 9.94  | 7.86  |
| 2. Group        | 156   | 5.43    | 8.67  | 8.94  |
| 3. Leadership   | 113   | 3.93    | 6.28  | 6.48  |
| 4. Organization | 1325  | 46.09   | 73.61 | 46.54 |
| 5. Company      | 852   | 29.63   | 47.33 | 30.01 |
| 6. External     | 212   | 7.37    | 11.78 | 11.96 |
| Total IGLOCE    | 2837  | 98.68   | 26.27 | 18.63 |
| Residual        | 38    | 1.32    | 2.11  | 2.27  |
| Total           | 2875  | 100.00  | 22.82 | 16.29 |

Table 5

*Distribution of OCM Statements at IGLOCE (N=18)*

|                               | I   | G   | L   | O    | C   | E   | R  | Total |
|-------------------------------|-----|-----|-----|------|-----|-----|----|-------|
| 1. Autonomy                   | 5   | 1   | 3   | 19   | 24  | 0   | 3  | 55    |
| 2. Integration                | 8   | 5   | 3   | 86   | 110 | 0   | 1  | 213   |
| 3. Involvement                | 12  | 10  | 2   | 56   | 22  | 1   | 1  | 104   |
| 4. Supervisory Support        | 2   | 4   | 3   | 2    | 1   | 0   | 0  | 12    |
| 5. Training                   | 6   | 0   | 0   | 29   | 18  | 0   | 0  | 53    |
| 6. Welfare                    | 4   | 40  | 2   | 47   | 4   | 1   | 0  | 98    |
| 7. Formalization              | 7   | 0   | 2   | 62   | 87  | 5   | 2  | 165   |
| 8. Tradition                  | 5   | 1   | 7   | 69   | 39  | 2   | 4  | 127   |
| 9. Flexibility and Innovation | 3   | 2   | 6   | 23   | 15  | 0   | 0  | 49    |
| 10. Outward Focus             | 1   | 4   | 1   | 129  | 29  | 134 | 2  | 300   |
| 11. Reflexivity               | 1   | 5   | 7   | 51   | 28  | 3   | 0  | 95    |
| 12. Clarity of Org. Goals     | 4   | 5   | 1   | 30   | 7   | 1   | 0  | 48    |
| 13. Efficiency                | 10  | 3   | 0   | 74   | 107 | 5   | 0  | 199   |
| 14. Effort                    | 4   | 5   | 3   | 19   | 3   | 0   | 0  | 34    |
| 15. Performance Feedback      | 1   | 1   | 4   | 5    | 21  | 0   | 0  | 32    |
| 16. Pressure to Produce       | 16  | 8   | 3   | 57   | 18  | 3   | 1  | 106   |
| 17. Quality                   | 1   | 2   | 1   | 37   | 10  | 6   | 0  | 57    |
| Total OCM                     | 90  | 96  | 48  | 795  | 543 | 161 | 14 | 1747  |
| Residual                      | 89  | 60  | 65  | 530  | 309 | 51  | 24 | 1128  |
| Total                         | 179 | 156 | 113 | 1325 | 852 | 212 | 38 | 2875  |

**OCM and IGLOCE.** Table 5 shows that most OCM statements are on the Organization (795) and Company (543) levels. The lowest number of OCM statements is on the Leadership (48) level. Company captures most statements on Integration (110), Efficiency (107), and Formalization (87). Organization captures most statements on Outward Focus (129), Integration (86), and Efficiency (74). On the Individual level the highest number of statements was on the category Pressure to Produce, still with only 16 statements. On the Group level, Welfare captured 40 statements, whereas the next was Involvement with only 10 statements. On the Leadership level the highest number of statements was found in Tradition and Reflexivity with only seven statements each. On the External level Outward Focus captures 134 statements, and Quality captures second most, with only six statements.

**PPS and IGLOCE.** Table 6 shows that most PPS statements are on the Organization (904) and Company (512) levels. The lowest number of PPS statements is on the Leadership (101) level. Company captures most statements on Internal Interface (133) and Governing Systems (86). Organization captures most statements on Interface External (187), Change Agenda (185), and Interface Internal (89). On the Individual level the highest number of statements was on the category Communication, still with only 20 statements. On the Group level, Work Environment captured 50 statements, and the next was Communication with only 21 statements. On the Leadership level the highest number of statements was found on Leadership with 71 statements, and next was Change Agenda with only 14 statements. On the External level Interface External captures 128 statements, and Governing Systems captures second most, with only five statements.

Table 6

*Distribution of PPS Statements at IGLOCE (N=18)*

|                               | I   | G   | L   | O    | C   | E   | R  | Total |
|-------------------------------|-----|-----|-----|------|-----|-----|----|-------|
| 1. Competence                 | 9   | 5   | 2   | 50   | 39  | 0   | 1  | 106   |
| 2. Development                | 5   | 0   | 0   | 35   | 15  | 0   | 0  | 55    |
| 3. Goals                      | 3   | 5   | 0   | 29   | 5   | 0   | 0  | 42    |
| 4. Feedback                   | 3   | 0   | 3   | 6    | 23  | 0   | 0  | 35    |
| 5. Leadership                 | 5   | 0   | 71  | 6    | 3   | 0   | 1  | 86    |
| 6. Autonomy                   | 4   | 0   | 1   | 14   | 19  | 0   | 4  | 42    |
| 7. Collegial Support          | 4   | 6   | 0   | 6    | 4   | 0   | 0  | 20    |
| 8. Roles and Responsibilities | 2   | 3   | 1   | 48   | 34  | 1   | 0  | 89    |
| 9. Workload                   | 10  | 4   | 4   | 43   | 13  | 1   | 0  | 75    |
| 10. Work Life Balance         | 8   | 3   | 0   | 15   | 4   | 0   | 0  | 30    |
| 11. Governing System          | 12  | 0   | 0   | 57   | 86  | 5   | 1  | 161   |
| 12. Change Agenda             | 4   | 4   | 14  | 185  | 50  | 3   | 3  | 263   |
| 13. Interface External        | 7   | 16  | 2   | 187  | 42  | 128 | 5  | 387   |
| 14. Interface Internal        | 5   | 3   | 0   | 89   | 133 | 0   | 0  | 230   |
| 15. Communication             | 20  | 21  | 2   | 72   | 25  | 2   | 2  | 144   |
| 16. Ethical Awareness         | 0   | 1   | 0   | 11   | 2   | 0   | 0  | 14    |
| 17. Work Environment          | 4   | 50  | 1   | 51   | 15  | 0   | 0  | 121   |
| Total PPS                     | 105 | 121 | 101 | 904  | 512 | 140 | 17 | 1900  |
| Residual                      | 74  | 35  | 12  | 421  | 340 | 72  | 21 | 975   |
| Total                         | 179 | 156 | 113 | 1325 | 852 | 212 | 38 | 2875  |

**Investigating the Research Questions**

**Central characteristics.** The first research question of which dimensions of organizational climate are most important to project organizations was investigated by using three paired t-tests and inductive thematic analysis.

A paired t-test was carried out to compare the number of identified statements on OCM ( $M = 97.056$ ,  $SD = 43.487$ ), and the total number of statements ( $M = 159.72$ ,  $SD = 74.26$ ). The results revealed a significant difference between OCM and the total,  $t_{(17)} = -7.82$ , 95% of difference  $[-79.59, -45.75]$ ,  $p = .000$  indicating that the model did not account for all of the statements.

A paired t-test was carried out to compare the number of identified statements on PPS ( $M = 105.56$ ,  $SD = 47.12$ ), and the total number of statements ( $M = 159.72$ ,  $SD = 74.26$ ). The results revealed a significant difference between PPS and the total,  $t_{(17)} = -7.54$ , 95% of difference  $[-69.32, -39.02]$ ,  $p = .000$  indicating that neither this model accounted for all of the statements.

A paired t-test was then carried out to compare the number of identified statements on PPS and OCM combined ( $M = 129.22$ ,  $SD = 59.57$ ), and the total number of statements ( $M = 159.72$ ,  $SD = 74.26$ ). The results revealed a significant difference between the combined model and the total,  $t_{(17)} = -7.44$ , 95% of difference  $[-39.15, -21.85]$ ,  $p = .000$  indicating the combined model of OCM and PPS nor accounted for all of the statements.

The models did not account for a significant amount of statements, nor did the combined model. Therefore, the residuals of the models were explored. Combining the two work environment models yielded 549 residual statements of both models, meaning that there were several statements that were thematically outside both OCM and PPS. An inductive thematic analysis of the 549 residual statements from the combined model was therefore conducted and uncovered eight themes, displayed in Table 7. Manning captured most statements, with 137 (24.95%) statements. Next, Project Premises was mentioned 88 (16.03%) times, and Internationalization was mentioned 63 (11.48%) times. The category Miscellaneous refers to statements that were not relevant to work environment in project organizations, mostly technical specifications. Below, the dimensions are described in further detail.

Table 7

*Distribution of Residual Statements from Combined Model on Categories (N=18)*

| Category                | Count | Percent of Residual |
|-------------------------|-------|---------------------|
| 1. Manning              | 137   | 24.95               |
| 2. Team                 | 28    | 5.10                |
| 3. Internationalization | 63    | 11.48               |
| 4. Tools                | 18    | 3.28                |
| 5. Obstacles            | 35    | 6.38                |
| 6. Project Premises     | 88    | 16.03               |
| 7. Organization         | 35    | 6.38                |
| 8. Identification       | 32    | 5.83                |
| Miscellaneous           | 113   | 20.58               |
| Total                   | 549   | 100.00              |

The first theme, *manning* was mentioned several times, in the form of having enough people and being able to keep the right people. *Team* referred to cooperation within work groups and a concern with team building. *Internationalization* was referred to as moving parts of the project abroad and the problems that arise in regards to this, especially in relation to cultural issues. *Tools* were related to a concern with having the right project tools, especially IT software.

*Obstacles* were the risks and obstacles in relation to delivering on time and cost. *Project Premises* was referring to the conditions affecting the project like economy of company, amount of other projects in company, the standing of projects in company etc. *Organization* was a concern with how the project was organized. Last, *Identification* was a concern with everyone in the project identifying themselves with the project organization.

As seen in Table 8, the residual statement categories were also mainly on the Organization (201) and Company (145) levels.

Table 8

*Distribution of Residual Statement Categories at IGLOCE (N=18)*

|                      | I  | G  | L | O   | C   | E  | R  | Total |
|----------------------|----|----|---|-----|-----|----|----|-------|
| Manning              | 16 | 4  | 4 | 64  | 43  | 5  | 1  | 137   |
| Team                 | 4  | 15 | 0 | 6   | 1   | 0  | 2  | 28    |
| Internationalization | 1  | 0  | 0 | 15  | 26  | 19 | 2  | 63    |
| Tools                | 4  | 0  | 0 | 3   | 11  | 0  | 0  | 18    |
| Obstacles            | 0  | 0  | 0 | 21  | 10  | 3  | 1  | 35    |
| Project Status       | 1  | 0  | 0 | 12  | 3   | 0  | 0  | 16    |
| Project Premises     | 0  | 0  | 1 | 41  | 37  | 6  | 3  | 88    |
| Organization         | 0  | 2  | 0 | 21  | 12  | 0  | 0  | 35    |
| Identification       | 9  | 2  | 0 | 18  | 2   | 0  | 1  | 32    |
| Total Residuals      | 35 | 23 | 5 | 201 | 145 | 33 | 10 | 452   |
| Miscellaneous        | 17 | 2  | 0 | 43  | 28  | 0  | 7  | 97    |
| Total                | 52 | 25 | 5 | 244 | 173 | 33 | 17 | 549   |

**Organizational levels of analysis.** The second research question, of which organizational levels are most important in relation to organizational climate in project organizations, was explored by using multivariate tests (MANOVA), in a repeated organizational climate model (2) x organizational levels (6) design. The MANOVA indicated a significant main effect of models, Wilk's lambda = 0.64,  $F(1,17) = 9.77$ ,  $p = .006$ , partial eta squared = .37, meaning there was a significant difference between the number of statements captured by the two models across the levels of IGLOCE. The post-hoc analysis revealed that PPS captured significantly more statements than OCM also when including organizational levels ( $p = .006$ ).

The MANOVA revealed a significant main effect of organizational levels, Wilk's lambda = 0.15,  $F(5,13) = 14.64$ ,  $p = .000$ , partial eta squared = .85. The results indicate that there are significant differences between the numbers of statements captured by the six different

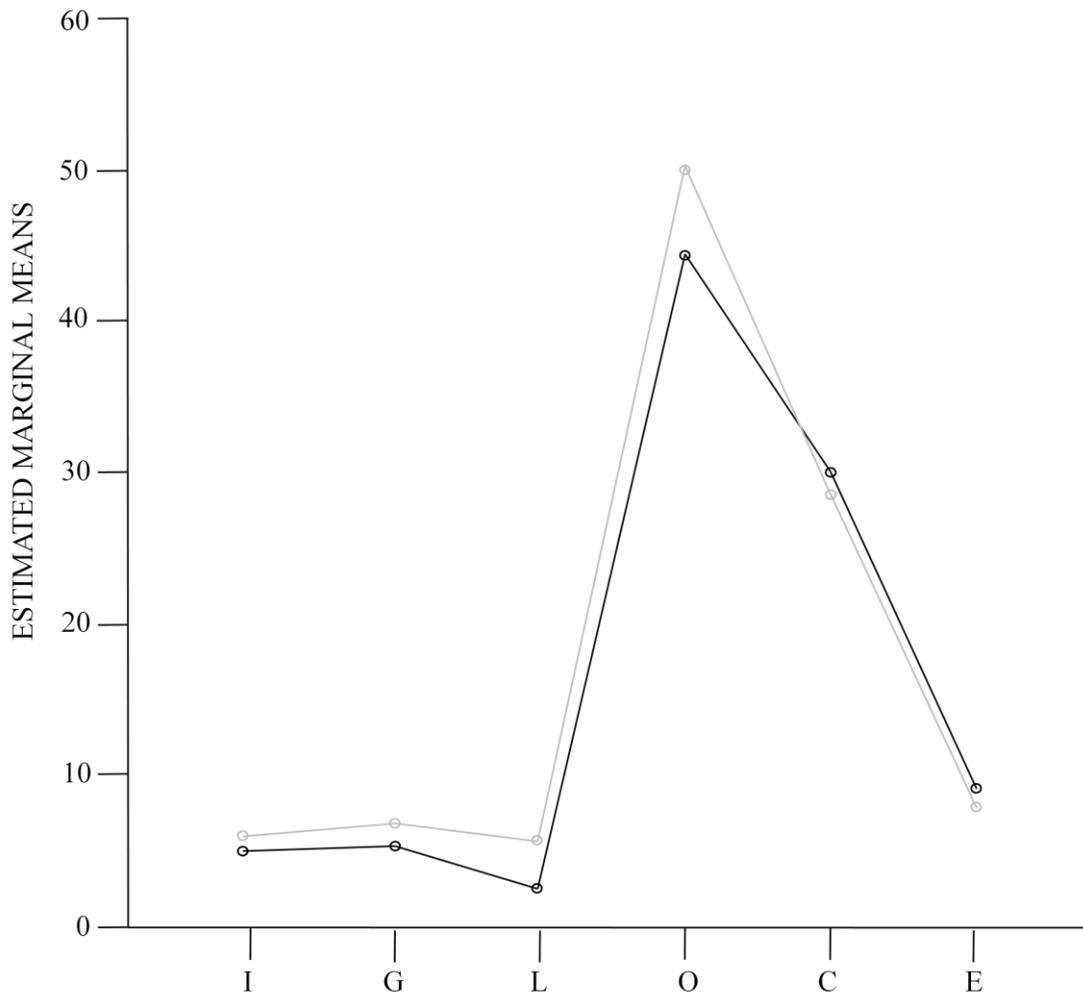
organizational levels, across the models. The post-hoc analyses demonstrated that the organizational level captured significantly more statements than the individual, group, leadership, and external levels (all differences  $p = .000$ ). The company level also captured significantly more statements than the individual ( $p = .000$ ), group ( $p = .002$ ), leadership ( $p = .000$ ), and external ( $p = .009$ ) levels. However, there was no significant difference between the organizational and company levels ( $p = .513$ ), or between any of the four other levels.

The MANOVA also revealed a significant interaction effect between the models (2) and organizational levels (6), Wilk's lambda = 0.39,  $F(5,13) = 4.05$ ,  $p = .019$ , partial eta squared = .61. Table 9 shows descriptive statistics for the models at the six organizational levels. The results indicated that there was a significant interaction effect between PPS and OCM on IGLOCE (see Figure 2), meaning that the effect of the models on the total number of statements is dependent on the effect of organizational levels.

Table 9

*Descriptive Statistics for OCM and PPS on IGLOCE (N=18)*

| Organizational Level | OCM   |      | PPS   |      |
|----------------------|-------|------|-------|------|
|                      | M     | SD   | M     | SD   |
| Individual           | 5.00  | 0.91 | 5.83  | 1.04 |
| Group                | 5.33  | 1.81 | 6.72  | 1.90 |
| Leadership           | 2.67  | 0.70 | 5.61  | 1.37 |
| Organization         | 44.17 | 6.72 | 50.22 | 7.19 |
| Company              | 30.17 | 4.30 | 28.44 | 4.30 |
| External             | 8.94  | 2.03 | 7.78  | 1.87 |



*Figure 2.* Graphical Representation of Interaction Effect Between OCM and PPS on IGLOCE  
 Note: Black line = OCM. Grey line = PPS. This graph does not illustrate a trend, as IGLOCE is comprised of categories.

## **Discussion**

The aim of the present study was to uncover the important dimensions of organizational climate for project organizations, and to explore which organizational levels are most important, to use this as the basis for developing an elaborated model of organizational climate for project organizations. Two models argued to be relevant for organizational climate in projects, the general and validated OCM, and the situation-specific best-practice model PPS, were assessed using the M-SWOT methodology, as well as exploring what was thematically outside the two models.

The findings show that all dimensions of OCM captured statements from the interviews. However, OCM did not capture a significant amount of the total number of statements from the informants. The same result was found for PPS. However, the results show that PPS captured more of the total amount of statements than OCM, indicating that the situation-specific model better captured the important dimensions of project work. Interestingly, several dimensions of the two models had a considerable overlap of statements, indicating a large similarity between the two models. However, the inductive thematic analysis showed that the statements that were not covered by any of the two models included eight themes perceived important to the project workers in the study.

OCM and PPS both captured statements across all levels of IGLOCE. Surprisingly, PPS captured more statements on Individual, Group, Leadership, and Organization, the original levels of organizations, whereas OCM captured more statements on the specific project levels, Company and External. It was also found that the levels Organization and Company captured significantly more statements on the models than the rest of the organizational levels. An interaction effect was found between the models and organizational levels, indicating that organizational level affects the number of statements accounted for by the models.

### **Important Dimensions of Project Organizations**

Van Veldoven and colleagues (2005) argued that a general model is a good starting point for developing a situation-specific view, and in this study, OCM was found to be a good starting point for a situation-specific model. The findings indicate that general aspects of organizational climate are relevant to project work, but that there are situation-specific characteristics important to project work as well. OCM actually covered more than 60 percent of the total amount of

statements, indicating that the model has a high relevance to project organizations. The fact that OCM had an overlap of 1321 statements with PPS also illustrates this relevance. Studies in other settings have also found OCM to be a relevant measure. Hønsen (2010) found that OCM captured 50 percent of the total amount of statements from interviews in a knowledge-intensive work setting, and Hoff, Flakke and colleagues (2009) found OCM to be highly relevant in an innovative work setting, covering 86 percent of all statements from 15 informants. Schneider and Reichers' (1983) view that measuring organizational climate without attaching a referent to a specific setting is meaningless, therefore seems to be too rigid. However, PPS had a slightly higher relevance, and captured 153 more statements than OCM. This result indicates that the situation-specific model better captured the important dimensions of project work. However, the difference between OCM and PPS, although significant, is quite small.

As OCM is a valid measure, that has been shown to be relevant in project work, as well as other work settings, the 17 dimensions of OCM is considered a good basis for the model. OCM has been modified to a specific work setting earlier. Lone and colleagues (2011) found that a modified OCM model including teamwork and modifying the dimension Outward Focus was relevant in a knowledge-intensive setting. Similarly, in this study modifying and adding dimensions is proposed to better capture dimensions of organizational climate important to project work.

### **Organizational Climate Measure of Projects**

A modified version of OCM is proposed for use in project organizations, the Organizational Climate Measure of Projects (OCMP). The 17 general dimensions of OCM serve as the basis for the new model. However, the findings from the study indicate that there are also situation-specific dimensions that are important to project work. Based on the findings from the coding of PPS and the thematic analysis, two dimensions, Supervisory Support and Quality, are proposed to be modified, and three dimensions, Human Capital Resources, Roles and Responsibilities, and Project Premises, are suggested to be added to the original model. It was considered to remove the dimensions with the lowest scores. However, the dimensions were covered to some degree, indicating that it is important to the employees. Also, several of the dimensions with a low number of statements had a thematic overlap with dimensions of PPS, further indicating their relevance to the organization.

## **Existing Dimensions**

15 dimensions of OCM are kept unchanged. It is important to note that PPS captured more statements than OCM, and PPS also captured more statements within most of the categories that were thematically similar to dimensions of OCM (e.g. Outward Focus and Interface External). This is most likely due to the fact that the PPS terminology has a higher relevance to the data studied. It is therefore suggested to keep some flexibility in mind when it comes to wording of questions. For example, in the outward focus part, "vendors" and "suppliers" could replace "market place" and "customers" if this is more relevant.

## **Modified Dimensions**

**Supervisory Support modified to Project Management.** The first dimension suggested to be modified is Supervisory Support. In projects, the project manager is assigned by the company to achieve the project goals and objectives, and is the main point of contact between the project organization and all project stakeholders (Project Management Institute, 2008). The project manager should guide the rest of the project organization in relation to the goals and objectives, as well as motivate the project members (Turner & Müller, 2003). Projects are limited in time and are set up to deliver on a specific goal and set of objectives. Consequently, the guidance towards the goal might be of as much importance to project workers as the support and motivation.

The results show that the dimension Supervisory Support included only 12 of the total 2875 statements. However, the thematically similar, but broader category, Leadership from PPS, captured 86 statements. The dimension in PPS was perhaps too broadly defined, and included leadership on all levels, as well as all aspects of leadership. However, most of the statements referred to project management. Examples of statements are "The management team is very hands-on and know the details, and that is positive", "The management team send out signals of optimism and they believe we can make this", and "Sometimes I wish the management team was a little more decisive". *Supervisory Support* is therefore suggested to be modified and renamed Project Management. Project Management is defined as a concern with how project management is conducted.

**Quality modified to Project Objectives.** The second dimensions suggested to be modified is Quality. The results indicate that in project work this dimension is too narrowly

defined as it captured only 57 statements. The thematically similar PPS dimension Change Agenda captured 263 statements. Change Agenda was defined as a concern with delivering and constantly improving in relation to time, cost, quality, and HSE. In other words, Change Agenda is a broader category, and included more characteristics of project work. Typical statements within this category are "For the management, it is important to stay on budget," and "Maybe the most important thing for us is being on schedule." In the literature cost, time, and quality are almost inextricably linked together (Atkinson, 1999; Meredith & Mantel, 2012; Westerveld, 2003), and are frequently referred to as "The Iron Triangle" of project objectives (Atkinson, 1999). These objectives are as important as the overall project goal. Delivering a product too late, without the right specifications, or with an exceeded budget is not satisfactory (Meredith & Mantel, 2012). It seems that a concern with quality is not adequate in relation to project work. Based on the findings from the study, and the frequency of cost, time, and quality in the project management literature, the dimension Project Objectives is suggested to replace Quality in OCMP. HSE is not included in the dimension, as this is not linked with cost, time, and quality in the literature. However, in projects where this is considered very important it is rather suggested that this could be added as an extra dimension. *Project Objectives* is defined as the emphasis given to delivering, and continuously improving, on time, cost, and quality.

### **New Dimensions**

**Human Capital Resources.** In the residual statements from OCM, the PPS dimension Competence captured 89 statements, and the inductive thematic analysis revealed the dimension Manning capturing 137 statements. These two dimensions combined are suggested to form the dimension Human Capital Resources, as they combined refer to a concern with having the right person, at the right place, and to the right time. It also refers to a concern with continuity of people, as continuity of knowledge and experience is important to projects. Typical statements are "Our biggest strength in this project is our competence", "Top management needs our competent resources in other projects, and that is working against us" "Continuity, having people 100 percent dedicated to one project, and not having several other projects to worry about, is a clear advantage to every project", and "That would make it easier to get the right people working on projects". These statements refer to the advantages and disadvantages of matrix organizations. An advantage of matrix organizations is the possibility of moving people around in the

organization where needed, and that specialists can be assigned to several projects at the time (Ford & Randolph, 1992). On the negative side, projects are usually set up with limited resources, also in the form of human resources (Meredith & Mantel, 2012), affecting the work situation of individuals. In the project studied, it seems like there is too much internal flexibility in terms of human resources, making the continuity of knowledge and experiences a problem for the project. However, it is also regarded positive for the individuals, as this statement illustrates “It is a great advantage working in a company like this, if I get tired of what I do, I can just do something completely different”. This internal mobility is seen as an advantage for individuals in matrix organizations, as they are able to take on a variety of tasks and responsibilities (Ford & Randolph, 1992). Based on the findings and the literature referred to above, the dimension Human Capital Resources is suggested to be added to OCMP. *Human Capital Resources* is defined as having the right people, at the right place, to the right time.

**Roles and Responsibilities.** Another dimension that is closely linked to a matrix organization is Roles and Responsibilities. As described in the introduction, in matrix organizations the employees work in a structure of multiple lines of authority, responsibility, and accountability (Ford & Randolph, 1992). Properly defining the roles and responsibilities is therefore of great concern to project workers. This dimension was referred to 89 times by the informants, and typical statements are “It is not always clear who owns the decision”, “There are very many reporting lines”, and “A key to success in a matrix organization is that everyone knows their roles and responsibilities”. Adding a dimension with this focus is therefore suggested. *Roles and Responsibilities* is defined as having clearly defined roles and responsibilities between the project organization and the functional organization, as well as between employees within the project organization.

**Project Premises.** Project Premises was another dimension found in the residuals of OCM that is suggested to be added to OCMP. This dimension mainly reflects how the company situation determined the project organization and the amount of project resources available. The dimension captured 88 statements, and typical statements are “The company is in a situation where there are many simultaneous projects affecting the manning situation”, and “My perception is that projects do not have a high standing in the company, but projects should be of great priority”. In line with this, Amabile and colleagues write that in projects, resource allocation has practical limitations on peoples’ possibility of accomplishing their work, but it also affects

people psychologically by leading to beliefs about the intrinsic value of the projects that they have undertaken (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Based on the amount of statements and the relevance in the literature, Project Premises is suggested to be added. *Project Premises* is defined as the overall premises imposed by the company.

The last dimension that was frequently mentioned in the residuals was Internationalization. This dimension is seen as a specific issue regarding this project, and not necessarily an issue for projects in general. However, the world is becoming more global so this dimension could be added in relevant cases.

To sum up, Supervisory Support is modified and suggested to be a more broadly defined dimension called Project Management. Project Objectives is suggested to replace Quality, and include time and cost in addition to quality. Three new dimensions are suggested as additions to the existing dimensions of OCM, Human Capital Resources, Roles and Responsibilities, and Project Premises.

### **The Organizational Levels of Project Organizations**

As was argued in the introduction, in addition to finding the important dimensions that affect employee behavior in project organizations, it is vital for companies to know at which organizational levels the dimensions are located. This is because possible interventions must be made at the right level. This is especially true in the complex structures of project organizations. Therefore, an extended framework for organizational levels, IGLOCE, was proposed for project organizations.

Organizational level was found to have an effect on the models under study. This is indicated by the interaction effect that was found between the models and IGLOCE. This interaction effect indicated that organizational level has an effect on how many statements the models capture. For example, excluding the Company level would affect OCM more than PPS.

Organization was found to capture more statements than all other organizational levels. However, the difference was not significant between the levels Organization and Company. This implies that the two levels, Organization and Company, are the most important levels of analysis in project organization, and in fact these two levels covered 75.72% of the total amount of statements. One might argue that these levels could be combined, as the organization is a part of the company, and therefore could constitute what has been referred to as Organization earlier.

However, project organizations are fairly autonomous (Ford & Randolph, 1992), and project workers relate to practices and procedures that are specific to the project organization, as well as practices and procedures imposed by the company. Distinguishing between these levels would therefore make possible interventions more accurate. Based on these results, these two levels should be the focus of measures of project organizations.

OCM is focused on the organizational level of analysis (Patterson et al., 2005). OCM does, however, seem to be sensitive to both Organization and Company. One reason might be that the organizational level of OCM refers to companies, rather than an organization within a company. It was also found that all the dimensions of OCM, except Outward Focus, had most statements on Organization or Company. This is another indication that OCM is relevant to projects. Also, the new dimensions from PPS and the thematic analysis have most statements on the Organization and Company levels, with one exception, Project Management. This dimension, not surprisingly, has several statements on the Leadership level. However, as the literature and the findings show, Project Management is such an integrated part of project work that this dimension should be included.

### **Conclusion**

Companies are increasingly organizing work in projects, and this organizational form has gained a lot of attention. Especially large-scale projects have gained the public's attention because of the risks they impose on people, environment, and budgets. Project management tends to focus mainly on the technical aspects of these risks. However, organizational issues are often found to be underlying causes of major accidents, in addition to technical issues. It is therefore important to assess the organizational context and the dimensions that affect employee behavior, not only the technical aspects.

A new model of organizational climate in project organizations, the Organizational Climate Measure for Projects, is proposed based on a systematic qualitative analysis of employees' reflections regarding project work. The dimensions of the general and validated model OCM are used as a basis of the new model, as it captured a large amount of the total number of statements from the informants and was therefore considered relevant to project organizations. However, situation-specific dimensions were also found through an analysis of the situation-specific PPS and an inductive thematic analysis. The new model is suggested to include

the 20 dimensions: Autonomy, Integration, Involvement, Training, Welfare, Formalization, Tradition, Flexibility and Innovation, Outward Focus, Reflexivity, Clarity of Organizational Goals, Efficiency, Effort, Performance Feedback, Pressure to Produce, Project Management, Project Objectives, Human Capital Resources, Roles and Responsibilities, and Project Premises.

The new model, OCMP, is an empirically based model, but the project management literature supports the inclusion of the new dimensions, as well as the general OCM dimensions. Interestingly, several of the dimensions from OCMP are also mentioned as areas of concern in reports from the two accidents described in the introduction, Deepwater Horizon and Gullfaks. Integration, Involvement, Project Objectives, Training, Management, Formalization, Outward Focus, and Human Capital Resources were all mentioned as problem areas. Being able to measure these dimensions regularly could create early awareness of organizational issues of concern. However, OCMP is only a proposed model of dimensions important to project organizations. The model needs to be validated in other project organizations. Then the model needs to be further developed to a measurement instrument. A validated instrument would be a way for projects to measure how they are performing in relation to important dimensions affecting employee behavior in such organizations. One could create a database for companies to benchmark themselves against similar project organizations to find areas of improvement, and to get early warnings of organizational problems. In order to improve and make possible interventions in the workplace, it is important to know which organizational levels to focus on. For OCMP with the focus on project organizations it is proposed to focus mainly on the Organization and Company levels, and to make clear distinctions between the two.

### **Limitations**

There are at least three limitations to this study, whether it is a representative sample, the issue of reliability and validity, and whether the reflections from the interviews can be viewed as the most important dimensions of organizational climate related to project work. Qualitative studies in organizational psychology have been criticized for using unrepresentative samples and to not emphasize inter-rater reliability (Mazzola, Schonfeld, & Spector, 2011). In this study the sample was selected strategically based on level and geographical area, to be as representative to the organization studied as possible. However, this organization might not be representative of

project organizations in general. Further studies on organizational climate in project organizations are therefore needed.

To reduce the problem of reliability, co-rater training was emphasized in the interview-, transcription-, and coding phase. After training, inter-rater agreement was tested using percentage of agreement for the transcriptions, and Cohen's Kappa for the coding. The problem of validity, on the other hand, is harder to overcome. Even though the inter-rater reliability is high, this is no guarantee for validity (Krippendorff, 1980). The agreement might be a common interpretation between the two raters, rather than reflecting the truth. Too much focus on reliability might actually be a threat to validity, as the raters might get so caught up in getting a high inter-rater agreement that they diverge from the original definitions of the categories studied (Krippendorff, 1980). However, as the researchers were aware of the issue they focused on staying as close to the original definitions as possible.

The informants were asked to talk about strengths, weaknesses, opportunities, and threats related to project work. However, their free reflections might not be representative to what is actually most important to the organizational climate of projects (Lone et al., 2011). Yet, the project management literature supports the inclusion of the dimensions of OCMP.

### **Future Studies**

The OCMP is a model suggested for use in project organizations. However, the model needs further development. First of all, the 20 dimensions need to be developed into an instrument for use in project organizations. Most dimensions are already validated, as they are kept unchanged from OCM. However, the questions need to be flexible in wording to fit the challenges of project organizations. Also, the new and modified dimensions need to be developed and subjected to a factor analysis. Last, the new model needs to be validated in different project organizations.

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## Appendix A – E-mail from the Project Manager

Hei,

Gudrunprosjektet er så heldige at 3 stk mastergradstudenter ved UIO ønsker å bruke oss som case for sine masteroppgaver.

Tema for oppgavene er Prosjektorganisering

- Styrker, svakheter
- Muligheter og trusler

Det er en masteroppgave med faglig forankring innen sosiologi (Julie Thue Bø) og 2 innen organisasjonspsykologi (Martine Hannevik og Marina Kristiansen).

Mastergradstudentene vil jobbe sammen og gjennomføre ett stk intervju med personell på ulike nivå i Gudrun prosjektet. Jeg henstiller alle som blir forespurte om å sette av tid til intervju (maks 1,5 time). Jeg synes det er spennende og aktuelt at noen fra utsiden ser på hvordan prosjektet er organisert.

Med en vennlig anmodning

## Appendix B – E-mail from the Author

Hei,

Tusen takk for at du tar deg tid til å stille til intervju ...dag kl. .... Det er ... som kommer til å intervju deg. Intervjuet kommer til å ta mellom 1 og 1,5 timer og vi vil stille deg følgende spørsmål:

1. Fortell om det i dag som fungerer godt ved prosjektarbeidet her, vi kaller det styrken i prosjektarbeidet.
2. Fortell om det som i dag ikke fungerer godt ved prosjektarbeidet her, vi kaller det svakheten i prosjektarbeidet.
3. Fortell om det du i dag ser som muligheter for å forbedre prosjektarbeidet her. Det er det vi kaller mulighetene.
4. Fortell om det du i dag ser som hindringene mot å forbedre prosjektarbeidet her. Vi kaller det for truslene i prosjektarbeidet.

Mvh

Martine Hannevik

## Appendix C – Examples of Statements

### Dimensions of Organizational Climate Measure (OCM)

1. *Autonomy*: designing jobs in ways, which give employees wide scope to do their work

“Det å få ansvar og få lov å ta ansvar og bli delegert utfordringer det tror jeg, i hvert fall en sånn bedrift som vi er i nå, høytutdannede stort sett, er det en forutsetning for å trives.”

“Vi må få mye mer beslutninger inn i oppgaveaksen ellers så kan dette her umulig gå.”

2. *Integration*: the extent of interdepartmental trust, cooperation, and sharing of information in the project organization and company

“Der er vi ekstra bra på vil jeg si på (prosjekt) i forhold til tidligere prosjekter, for drift inngår som en integrert del av bemanningen.”

“Så finnes det også mange andre avdelinger i (selskap) man har ikke så mye kontakt med. Det er kanskje negativt.”

3. *Involvement*: comprised of *Participation*: employees have considerable influence over decision-making and *Communication*: sharing of information throughout the organization

“Det er korte avstander i kommunikasjonsveier.”

“Det blir jo prøvd at folk blir kjent med det og det har vært godt med informasjon og sånn. Så det har jo egentlig fungert veldig bra, synes jeg.”

4. *Supervisory Support*: the extent to which employees experience support and understanding from their immediate supervisor

“Så det å bruke tid på ledelse, bruke tid på å finne ut hvor man skal sette innsatsen hen. Bruke tid på folk sånn at vi og sørger for at folkene blir sett.”

“At alle skjønner sin oppgave og blir verdsatt for det de gjør, det er viktig.”

5. *Training*: a concern with developing employee skills, competence, and knowledge

“Også synes jeg vi burde ha mer opplæring i arbeidsrutiner.”

“Kan lissom utvikle deg etter eget ønske, det er ganske, det er veldig bra.”

6. *Welfare*: the extent to which the organization values and cares for employees

“At folk trives er veldig viktig. Det legger vi stor vekt på.”

“Det er jo veldig stort fokus på i form.”

7. *Formalization*: a concern with formal rules and procedures

“Vi har krav og regler å forholde oss til og noen ganger så er det at det glipper litt, at man ikke klarer å få med seg alt.”

“Det vi kanskje og kan forbedre det tror jeg at mye godt på gang og ift dette her med å kanskje ha enklere krav. Kravdokumenter.”

8. *Tradition*: the extent to which established ways of doing things are valued by the organization and individuals, no or slow change

“Så det med å holde kontroll på endringer det er ofte det som styrer om det er vellykket eller ikke.”

“Det er vel en generell sak at ikke alle liker endringer.”

9. *Flexibility and Innovation*: an orientation toward change and the extent of encouragement and support for new ideas and innovative approaches

“Det er en kontinuerlig endringsprosess i et prosjekt. Det endrer seg hele veien, enten det kommer ny personer inn og ut, eller at fasene endrer seg og da reorganiserer vi bare og det er befriende enkelt”

“Det å sette sammen gode team som på en måte etablerer, som leverer kollektivt og får til en innovasjon og gjør hverandre gode, det har vi fått til ganske bra.”

10. *Outward Focus*: the extent to which the organization is responsive to and understands the needs of the customer, vendor and the marketplace in general

“Vi har leverandører som vi har et tillitsfullt samarbeidsforhold til. Altså, de kjenner kravene våre og vi kjenner deres kompetanse og svakhet og styrke og, så vi jobber bra sammen”

“Vi har greid å få til en organisasjon som kommuniserer bra med omverdenen.”

11. *Reflexivity*: a concern with reviewing and reflecting upon own objectives, strategies, and work processes, in order to adapt to the wider environment

“Så må jo vi tilpasse oss de da. Men det er jo et sånn stadig forbedringspunkt.”

“Mens enn så lenge så snakker vi bare om forenkling, men vi gjør ikke noe med det.”

12. *Clarity of Organizational Goals*: a concern with clearly defining the goals, vision and strategy of the organization

“Alle har felles mål.”

“For vi har jo masse grep med måltavle.”

13. *Efficiency*: the degree of importance placed on employee efficiency and productivity at work through good systems, organization, planning etc.

“Det er jo masse støttesystemer som gjør at vi har en ganske problemfri hverdag utover det vi skal holde på med.”

“Systemene må være godt tilrettelagt for det å kunne kjapt hive over fra egen mailboks og inn i storsystemene.”

14. *Effort*: how hard/enthusiastically people in organizations work towards achieving goals

“Det er folk som virkelig vil levere og som du føler virkelig gir mye av seg selv for å få levert et godt prosjekt.”

“Det er gjort en stor innsats.”

15. *Performance Feedback*: the measurement and feedback of job performance

“Og dette med tilbakemelding er vi nok ikke så flinke til. Tror ikke vi er vant med å gi tilbakemelding.”

“Det er og gjort helt systematisk her på hver enkelt ingeniør, altså fra engineeringleder til altså, en vet hva en skal levere og får tilbakemelding på det en leverer.”

16. *Pressure to Produce*: the extent of pressure for employees to meet targets e.g. time pressure, work pressure, workload

“Jeg synes en svakhet er at vi har vanligvis veldig høy belastning.”

“Jeg liker godt å ha kontroll på alle ting og det har man bare ikke tid til å få, få det gjort.”

17. *Quality*: the emphasis given to quality procedures and products

“Det skal være rett kvalitet.”

“Det må være rett kvalitet altså, for det står vi ansvar for.”

### **Dimensions of Project People Survey (PPS)**

1. *Competence*: a concern with present knowledge, competence, skills, and experience

“Nå har vi mange som er veldig dyktige på fagområdene og at de kommer inn og assisterer det tror jeg er bra.”

“De har mye teknisk kompetanse.”

2. *Development*: the possibility of developing employee knowledge, competence, and skills

“Kompetanseutvikling er viktig.”

“Vi er flinke til å, med relativt, vi er ganske flinke til å frem talenter.”

3. *Goals*: clarity and communication of project goals

“Vi kan vel kanskje si at vi har nokså tydelige mål, eller forventningene våre.”

“Der hadde vi et veldig klart sterkt fokus og klare mål som ble rullet ut tidlig i prosjektfasen.”

4. *Feedback*: if and how feedback is given

“Det er ekstremt viktig at folk føler seg viktige og at de får anerkjennelse for jobben de gjør.”

“Dette med tilbakemeldingskultur og tror jeg er noe som er viktig for oss som selskap at vi blir flinkere på. Klarere og tydeligere.”

5. *Leadership*: a concern with how leadership and management is conducted

“Det betyr at prosjektleder han bestemmer, han har ansvaret for å få oppgaven gjort.”

“Der er det en sånn hands on i fra ledelsen, altså de, de er på, de er med i detaljene når det trengs. De er liksom hands on og det er bra.”

6. *Autonomy*: having influence over ones work situation

“Jeg ville nok foretrukket at man delegerte vesentlig mye mer myndighet til prosjektet på fagdisiplinnivå”

“Men man delegerer jo ikke all myndighet.”

7. *Collegial Support*: help and support among colleagues in the project

“Det å tenke kan jeg gjøre noe for å hjelpe han, sant osv.”

“Jeg skal bare være med å støtte opp så du kommer i mål på en god mate”

8. *Roles and Responsibilities*: clearly defined roles and responsibilities for project and functional organization

“Videre nøkkel til suksess er roller og ansvar. At det er kjent.”

“Hvis folk ikke har forstått sin rolle og sitt ansvar og liksom ser sin brikke i totaliteten så vil det jo bli mye knuffing.”

9. *Work Pressure*: a pressure to produce and meet deadlines, and possible health problems related to the work situation

“Altså jeg står jo da som nevnt under et press fra min prosjektledelse hvor kostnadene er der og for all del ikke forsink prosjektet.”

“Problemene er at den enkelte blir veldig høyt belasta.”

10. *Work Life Balance*: the relation between work and private life, especially with regards to commuting

“Og så må man jo finne seg på seg selv at man må gå hjem en eller annen gang også. Så da har man de timer man har på jobb og må bare få gjort så mye unna som mulig.”

“Mye reisevirksomhet ofte på mange.”

11. *Governing System*: the emphasis given to governing documentation, principles, policies, processes, and requirements from the project organization and the company

“For det første så har jo selskapet gode spesifikasjoner eller godt innarbeidet spesifikasjoner som vi bruker da og som er felles for oss alle og som vi har eierskap til.”

“Med andre ord vi er en ekstremt kravorientert bedrift, ønsker at det ble veldig mye en ensretting på måten å gjøre ting på.”

12. *Change Agenda*: a concern with delivering and constantly improving in relation to time, cost, quality, and HSE

“At ting skal jo gjøres på en sikker måte. Det er, det er jo det vi må ha som hovedfokus.”

“Ofte er forbedring veldig vanskelig til å få til for du vet at det koster enten i schedule, weight, eller cost.”

13. *Interface External*: concerns with the vendor organizations work situation and how to develop and cooperate with them

“Og vi har faktisk en bra kontraktør som er veldig etterrettelig og som ikke vil eller ønsker endringer.”

“Men vi hadde noe teambuilding med leverandøren også. Man blir litt kjent i hvert fall med ansiktene, så man vet også fra andre disipliner hvem man kan spørre eller hvor sann ca de sitter i bygget, så kan man bare stikke innom der og så bli henvist til riktig person.”

14. *Interface Internal*: the sharing of information, knowledge, and expertise with other departments in the company

“Jeg ser ikke basis som hindring. Jeg ser det som en styrke for vi har utrolig mye kompetanse der som vil det beste for vårt selskap, isteden for å gå utomhus for ekspertise som ikke kjenner settingen hver gang det er noe.”

“Altså basisorganisasjonen hos meg fungerer som mine rådgivere. Altså, jeg innhenter kunnskap hvor det skal løses et problem. De har vært veldig greie for meg å ha i dette prosjektet.”

15. *Communication*: a concern with communication within the project

“Ja, det, vi har jo som sagt den her, dem her samlingene som vi er på, vi kan jo, vi kan jo gi videre erfaringer innspill vi har til andre deler av prosjektet når vi har litt kommunikasjon eller vi prater jo litt, du blir jo litt kjent med de folka etter hvert.”

“Det er viktig at at du forstår hvem som trenger den informasjonene som du sitter på selv.”

16. *Ethical Awareness*: an awareness of ethical considerations regarding the project, and respect between individuals within the project

“Man respekterer hverandre og hverandres mening.”

“Tenkte og på det med etikken.”

17. *Work Environment*: a concern with employee well-being

“Vi har og fokus på at personer skal trives i org. De som trives gjør en bedre jobb og leverer bedre.”

“Det er kjekt å jobbe her.”

### **Organizational Levels (IGLOCE)**

1. *Individual*: Individual perceptions, feelings, and opinions of employees

“Jeg som lavest på rangstigen trenger ikke å gjøre så fryktelig mye.”

“Ja, det er jo, hvis du ser på muligheter, hvis jeg ser på muligheter for meg selv, så lærer jo jeg noe hele tiden.”

2. *Group*: Interaction and cooperation in work groups, teams, and departments

“Det har blitt en veldig god gruppe synes jeg. Det er vel det som fungerer best..”

“Det har blitt en trivelig gjeng.”

3. *Leadership*: Behavior of immediate manager, project management, top management, or other leaders

“Prosjektledelsen er veldig tydelig på at de ønsker ikke for mye endringer.”

“Men ledere oppover de er veldig, de har veldig variabel risiko villighet.”

4. *Organization*: Practices, strategies, organizational goals, and the physical environment of the project organization

“Der har vi kanskje ikke vært gode nok til å lære opp nye som er med i prosjektet på rammer.”

“Vi skal bygge det og det produktet innenfor den og den tida, en tidsplan.”

5. *Company*: Practices, strategies, goals, and values of the whole company

“Så risikovilligheten den er veldig variabel og der bør selskapet ta et oppgjør med seg selv.”

“For vi er ofte strukturert sånn at du har flere i ledelsen vår som må godkjenne det, som må godkjenne det. Og da kan det være at beslutninger som må tas kjapt tar litt tid. For å få det gjennom systemene.”

6. *External*: Practices, strategies, organizational goals, and the physical environment of the external vendors, suppliers, customers, and market place

“For det har da igjen medført at leverandøren her har måttet sende sine, eller en god del av sine folk, til utlandet for å lære de rett og slett hvordan de skal få dette til.”

“Leverandøren har sin modell å kjøre etter, så de kan ikke ta så mange shortcuts.”

## Appendix D – Informed Consent

### Forespørsel om å delta i intervju i forbindelse med masteroppgave høsten 2011

Vi er tre masterstudenter i sosiologi og arbeids- og organisasjonspsykologi ved Universitetet i Oslo og holder nå på med den avsluttende masteroppgaven. Temaet for oppgaven er prosjektorganisering. Vi skal undersøke hvordan det oppleves å arbeide i prosjekt. For å finne ut av dette, ønsker vi å intervju ulike aktører innenfor et spesifikt prosjekt i denne bedriften. Spørsmålene vil dreie seg om dine opplevelser og erfaringer i forhold til prosjektarbeidet. Vi vil bruke båndopptaker og ta notater mens vi snakker sammen. Intervjuet vil ta omtrent 1,5 timer, og vi blir sammen enige om tid og sted.

Det er frivillig å være med og du har mulighet til å trekke deg når som helst underveis, uten å måtte begrunne dette nærmere. Dersom du trekker deg vil alle innsamlede data om deg bli slettet og ikke være en del av studien. Opplysningene vil bli behandlet konfidensielt, og ingen enkeltpersoner vil kunne gjenkjennes i den ferdige oppgaven. Opplysningene anonymiseres og opptakene slettes når oppgaven er ferdig, innen høsten 2012.

Dersom du har lyst til å være med på intervjuet, er det fint om du skriver under på den vedlagte samtykkeerklæringen. Samtykkeerklæringen kan bringes til oss enten til intervjuet eller ved å sende den.

Hvis det er noe du lurer på kan du ringe Julie på xx xx xx xx, eller sende en e-post til x@x.uio.no. Du kan også kontakte fagligveileder Fredrik Engelstad ved institutt for sosiologi og samfunnsgeografi på telefonnummer xx xx xx xx.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste A/S.

Med vennlig hilsen

Martine Hannevik,  
Marina Kristiansen og  
Julie Thue Buø

Samtykkeerklæring:

Jeg har mottatt informasjon om studien om prosjektarbeid og ønsker å stille på intervju.

Signatur ..... Telefonnummer .....