

‘Too Many Cooks Spoiling a Soup’? Making Sense of a Distributed, Multi-party IS Project

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Abstract

This paper analyzes collaboration in a distributed, multiparty information system (IS) development and implementation project. Existing research on collaboration in IS projects, and particularly in distributed, multiparty IS projects, is reviewed. In addition, collaboration is empirically analyzed by utilizing a phenomenographic approach. Empirical analysis shows that collaboration as a theme emerged strongly. Different organizations viewed the project and collaboration in the project in divergent ways, but there were also varied and contradictory views within the organizations. Implications both for research and practice are discussed.

1. Introduction

This paper analyzes collaboration in a distributed, multiparty information system (IS) development and implementation project. In this context, it is acknowledged that not only technical, but also the social, organizational, cultural and political aspects should be taken into account [2], [4], [22], [27]. In this paper the research interest is particularly on collaboration in IS development context. In IS research it has been known for decades that collaboration is a challenge, since there are people involved [3], [8], [22]. Collaboration refers to a purposive relationship, having a need to solve a problem, create something or discover something [26]. Collaboration necessitates interaction, which refers to mutual relationship between two or more people that controls behavior so that each individual’s action is reflected by the others’ actions. [11].

This research effort is phenomenographic in nature. Phenomenography is interested in the experience of what people have and in the differences between the “ways of experiencing the same thing” [17]. This paper focuses on different ways of experiencing a distributed, multiparty IS project, and especially on different ways of experiencing collaboration in this

context. Collaboration emerged as an influential theme during the inductive empirical analysis. The qualitative material was not intended for a study of collaboration. Project members’ experiences were collected through open interviews, in which collaboration as a theme emerged strongly. The interviews clearly brought out not only how different organizations viewed the project from their own standpoint, but also how there were varied and contradictory views within the organizations.

In IS research, qualitative inquiries into the IS development process and context have already been carried out, the studies revealing many different kinds of problems in collaboration [1], [2], [12], [20], [24], [27]. Many studies have shown that the position of users might be particularly problematic [1], [2], [12], [24], [27]. This paper contributes by analyzing collaboration in a distributed multiparty IS development project, in which one can assume that the complexities associated with collaboration even increase. In this context, however, there are only few qualitative inquiries investigating this issue in depth.

The paper is organized as follows. The next section reviews existing literature on collaboration and distributed and multiparty IS projects. The third section presents the research method utilized, the case involved in this study and the procedures of data gathering and analysis. The fourth section outlines the results of the empirical examination. The final section summarizes the results, discusses their implications and outlines paths for future work.

2. Theoretical Background

2.1. Collaboration in IS Projects

Collaboration between developers and users has been a popular topic of analysis in IS research. A number of problems related to collaboration have also been outlined. First of all, it has been argued that or-

organizational politics and conflicts between users, developers and managers may cause problems. There may be conflicts prohibiting collaboration between developers and users caused by differences in performance criteria and reward structure, and by ambiguous responsibilities. Differences in organizational structures, agendas and working habits may also cause problems. [4], [12], [16], [24]. In addition, there may be differences in the values, languages, skills and education levels between users and developers causing problems for collaboration [1], [6], [16].

Problems might be caused by the huge quantity of different types of knowledge that is required from both users and developers [2], [6]. Lack of knowledge hinders the problem-solving process at the beginning, when clarification and description of the problem is important [18]. In addition, the developers' limited social skills and knowledge might inhibit collaboration [20]. Another problem is reported as being an overall lack of motivation to collaborate, which applies both to users and developers. It might be difficult to motivate users to participate. [4], [6]. However, also developers' practices and norms might limit interaction; the developers might view themselves as technical experts, and consider interacting with users not to be part of their job [20]. Furthermore, studies show that involving the users is not necessarily a rewarded factor in contracting. User involvement may be viewed as a risk, delay and cost – by both the developers and the clients. [5].

Clearly, there is a number of issues causing conflicts in IS projects. Conflict management is an important issue to be considered [8]. Organizational conflict literature has identified three forms of conflict: relationship conflict, task conflict and process conflict [23]. Relationship conflict reduces open communication and knowledge sharing. However, a well-managed process conflict provides the foundation for relationships and trust between partners to develop. If process conflict is effectively managed, the potential for relationship conflict can be minimized, which enables the benefits of high task conflict to be used for the mutual gain of the alliance and its partners. [23]. Furthermore, task conflict improves group satisfaction when managed with agreeable behavior [8].

Regarding successful IS projects, furthermore, commitment to an IS project work has been recognized as a success factor. The level and changes in commitment are significant factors in IS projects. Commitment can even impede progress in certain cases. Erratic commitment can increase the loss in IS projects, e.g. when management does not want to get rid of a project that is failing. However, sustained commitment is a key requirement for completing IS projects successfully. [21].

In all, there clearly are many challenges in collaboration in IS projects. Especially collaboration between users and developers is challenging, but this is further complicated by other stakeholders such as clients and managers. In addition, IS projects nowadays involve even a larger number of different kinds of stakeholders. This is discussed further in the next section.

2.2. Distributed, Multiparty IS Projects

Collaboration is a great challenge when organizations should link with each other in order to perform effectively in present-day environments [7]. The increased number of involved parties implies the need for increased communication and coordination among these groups [25]. Next, studies addressing distributed and multiparty IS projects are discussed.

A characterizing feature of a distributed project is that it is carried out in a situation where actors are located at shorter or longer distances from each other [10]. Challenges of information technology (IT) implementation have been studied in cases where organizations are distributed. In this situation the main challenges are argued to be the initiation of the implementation process, decentralized adoption, establishing connectivity, individual acceptance and establishing collaborative work practices. [19].

Especially in geographically distributed IS projects there is a need to understand whether and how social aspects contribute to successful collaboration. Insufficient trust and poor social relationships may act as barriers to successful collaboration in globally distributed teams, and sufficient trust and well-established social relationships may act as enablers to collaborative work [13]. The importance of trust is emphasized in the management of distributed projects [10]. Without trust, collaboration is less likely to exist. The amount of trust may determine which goals will be given extra weight in situations where there are both competitive and co-operative goals. [10].

A conceptual view of key risk factors in distributed IT projects has been developed [9]. Firstly, the Sponsorship/Ownership risk factor relates to commitment and ownership by the key set of stakeholders. Because of the distances, the project owner may not be able to communicate effectively with the responsible teams. Secondly, Relationship Management risk factor refers to the development and management of user relationships, which can be influenced by unclear roles and expectations among users and other stakeholders. Trust management is part of relationship management and it is an integral part of high-performing distributed projects. User involvement is more difficult in a distributed environment and thus the risk that relationship management may be faulty is increased in

distributed projects. Organizations develop their own corporate culture and approaches to development, thus increasing the possibility of misunderstandings and mistrust between the distributed sub-teams. [9].

Thirdly, in distributed projects Project Management and Planning as a risk factor is multiplied compared to projects without distribution. Fourthly, Scheduling as a risk factor refers to the timing of the tasks and resources required for the successful completion of the project. Even though Scheduling is closely associated with the Project Management and Planning risk factor, it is kept separate due to its focus on the timing and availability of resources. However, the Scheduling risk factor is significant for any kind of distributed or non-distributed project. [9].

Fifthly, Development Processes is connected to a lack of established processes, or the presence of inappropriate processes. Again, the effect is magnified in distributed projects. Finally, the last risk factor is Personnel and Staffing, which refers to the presence of appropriate skills in the development and process management, combined with issues related to staffing levels, changes in personnel and the unavailability of key personnel resources. In all, lack of knowledge about these risk factors may cause project managers to undervalue or ignore their potential effects and thus lead to large losses that could have been avoided. [9].

Collaboration in multiparty IS development projects has been studied by Levina [15], where the target was to find out how people from diverse professions and organizational settings collaborate in IS development projects, and to describe how their diversity influences the IS that they are designing. The case in her paper consisted of two organizations. The starting point for her study was the need to develop a deeper understanding of actual collaborative practices in multiparty IS development. Levina explained how collaboration in multiparty IS development can be understood as a collective reflection-in-action cycle that changes and is changed by versatile organizational and professional stakeholders. [15].

Another view on collaborative development projects comes from Kumar and van Dissel [14] who studied the possible risks of conflict in inter-organizational IS development. The authors notice that the level of structure in the relationship can influence the potential conflict. They continue that the level and type of interdependence between actors affect the structure of the relationship between the actors. They generalize that structure can be interpreted as the ways in which inter-organizational work is divided among the partnering organizations by giving certain roles to them. They summarize four main factors influencing collaboration: environmental forces,

motives of the co-operative parties, supportive role of IT and enabling role of IT. [14].

In all, one can conclude that collaboration between different occupational groups and organizations is very challenging. Collaboration between users and developers has been the topic of analysis in a multitude of studies. However, in addition to users and developers, there is a number of other occupational and organizational stakeholder groups in distributed and multiparty IS projects. For that reason, in these projects there is an increased potential for conflict. Risk factors have also been identified related to these projects. These observations will be utilized, when discussing the results of empirical analysis.

3. Research Design

This study is a phenomenographic study of a distributed multiparty IS project. Generally, phenomenography is interested in the experience of what people have. It focuses on people's conceptions of surrounding world. Different ways of describing, interpreting, understanding and conceptualizing reality are analyzed [17]. The aim is to show the qualitative variation in which a certain population understands something. Irrespective of the fact whether people's ideas are true or correct, they constitute people's reality [28]. The researcher's role is central in the phenomenographic study due to the impact of interpretation.

The project examined is an IS development and implementation project in public sector. It is a very complex one, including a number of different organizations having different kinds of roles in the project (see Table 1).

Table 1. Participating organizations

Alpha	User organization
Beta	User organization
Gamma	User organization
Delta	User organization
Socca	Supplier
Cumma	Supplier
Nofco	Consortium of user organizations
Rhoo	Research organization

Four user organizations (Alpha, Beta, Gamma, Delta) were involved in the project. The goal of the project was that an IS (called ViWo in this paper) would be designed and taken into use by several organizations of the same type. The project aimed to carry out a pilot test of the IS in these organizations before establishing the system at the national level.

In addition, a consortium (called Nofco in this paper) of twenty-one user organizations was involved in

the project. Nofco served as a network organization facilitating the collaboration of the user organizations. Thus, the operation of Nofco was not parallel to that of the user organizations engaged in the project; instead, it enabled joint operation. The basic function of Nofco was to promote and develop locally, regionally, and nationally the utilization of IT and to enhance inter-organizational collaboration in multiple research-related issues and administrative practices.

Nofco was also involved in a previous project (called PreViWo) that carried out the background work for this project. The PreViWo project included a pilot phase that was implemented in three steps (specification, interface pilot and planning). Even if PreViWo was not able to produce its original target, i.e. the actual IS, due to problems with resources, it is worth noticing because it influenced the work and the perceptions of the participants in ViWo.

The project was implemented by two suppliers, Socca and Cumma. The suppliers were changed compared to the previous PreViWo project, because Socca and Cumma won the bidding competition of the ViWo project. Socca was a company that produced browser-related software solutions and it acted as the main supplier in the project. The company focused on the planning and implementation of replicable business solutions. The other supplier, Cumma, was a part of the national research network that developed research and IT based services for the needs of research and education, and the supporting IT administration.

In addition, a research organization (Rhoo) was involved in the project with five researchers. One of them was the responsible leader of the project and another one acted as the project manager of the project. Three researchers also formed the quality assurance group of the project.

The representatives of each of the four user organizations (Alpha, Beta, Gamma, Delta) participated in the project group, added with a representative of Nofco. In addition to the managers representing the user organizations, the project steering group included representatives of the Ministry funding the project, the network organization (Nofco), and the researcher organization (Rhoo). Furthermore, the project personnel included representatives of the supplier (Socca, Cumma) companies. In all, one can conclude that for an IS development project, the venture contained a considerable amount of collaboration.

The empirical materials of the study were collected using various qualitative methods such as unstructured interviews, observation, and field notes kept by researchers. In addition, e-mail messages (approximately 500 items) sent by the members of the project to one another, and various kinds of project materials were included in this study. The project materials in-

cluded documents such as the memos of project group and steering group meetings. The observational material was collected from project meetings where the observer recorded her observations. A total of 29 project group meetings took place during the 3-year period of the study and the researcher who conducted the interviews was present at 20 of them.

The primary data of the study was collected by interviewing members of the project group and the steering group. The interview-based materials consisted of 12 open-ended interviews. On ten occasions out of twelve the interviews were administered to a single subject. Two interviews were conducted jointly with two subjects at their own request. Accordingly, a total of 14 project members were interviewed. The interviews lasted from 45 minutes to two and a half hours. No framing questions were drafted for the interviews; the researcher only asked the subject to report on his or her experiences and views of the project and its progress. Among the interviewees there were managers who acted in steering group, representatives of suppliers, members of research organization, representatives of Nofco and users active in the project.

Through phenomenographic analysis we found that different organizations viewed the project and collaboration in divergent ways, but there were also variations within the organizations. That was the reason why we see it is sensible to classify the results according to the different actors present in the project.

There were differences in the eagerness of the suppliers' representatives to participate in the interviews, due to which the suppliers' viewpoints are not equally represented. All the same, the additional empirical material complemented our understanding.

4. Empirical Illustrations

"Now that the system is ready, we can commit a mass suicide..." (laughter) (Lisa). This is the way a user representative summarized the project in one of the last project meetings (Nov 2, 2006). However, towards the end of the project this user described the IS development project in public as follows: *"The development and introduction process of ViWo has been a success story..."*. In the interview, she felt collaboration was very challenging and required patience due to the variety of actors and the physical distance between them. She felt collaboration became easier as she got to know the people better.

The forms of collaboration included informal (e.g. exchanges of e-mail) and established networks (e-mail list) of staff members and project meetings. Project work consisted primarily of collaboration in the project meetings. Nevertheless, a representative of

Nofco pondered if project meetings are the correct place for decision-making. A representative of the supplier Cumma emphasized their importance in stating they were a tool that enabled the collaboration in the project. A member of the project's management, however, argued that the project lacked correct agreements for functional collaboration: *"Management of the war was placed on the wrong shoulders"*. Furthermore, project members and the steering group had different understanding of the functionality of collaboration: the members of the steering group had a more positive view of collaboration. The members of steering group felt that there were no conflicts. Thomas (member of project management) suspected that the steering group's understandings resulted from how the project manager presents the matter to them.

In all, one can conclude there were very different experiences about collaboration within the project. Next these will be discussed separately in relation to each stakeholder group.

4.1. Suppliers' Experiences

In this project, collaboration between the suppliers (Socca, Cumma) proved to be challenging. The suppliers experienced collaboration in different ways. There were also differing views on collaboration within Cumma's organization. According to Jack (supplier, Cumma), all possible work belonging to the suppliers was given to them in the project, while according to John (supplier, Cumma) they could have put more effort in some matters: *"Of course these suppliers are a little like puppies, in that they sure notice if (laughter), if they can cut a corner a little, then they will definitely do it (laughter)..."*.

According to Jack, collaboration did not function at all in the project, because there was no common language; no readiness for communication existed between different representatives. Jack also thought they as a supplier were given an interpreter's role in the project. Jack felt they had to act as an interpreter especially between the project manager, the other supplier (Socca) and the users: *"So I feel it's a completely unnecessary discussion and probably one thing is that I felt I was sitting at a meeting where they mainly spoke of matters that don't concern them (the users), even though they really did concern them very closely, and this interpretation, this translation, we felt it is a big job, but at that time no one did it..."* (Jack, supplier, Cumma).

According to Jack, problematic in collaborating with the users was that the users gave unclear, ambiguous answers to questions: *"Sometimes it comes to my mind that I don't know if these people had a mandate to speak, that what role they have there, like the*

representatives of the educational administration. So certain people say they can't say anything, they can't decide anything. On the other hand, did they see this as such a project ... did they just consider this as some kind of group work where we meet every now and then and discuss about matters..." On the other hand, Jack felt that this project was users' *"barrel of wishes"* related to the system.

Cumma's other representative, John, felt that collaboration with Socca was close. Despite that, he felt that disagreements were frequent and faults were dealt with by tattling to the project manager. In John's opinion this way they (Cumma) sought background support for their work: *"We always tattled about all faults to the project manager (laughter), because we didn't want to start speaking directly about everything..."* (John, supplier Cumma).

Cumma's third representative, Daniel, considered Socca to be a professional software producer that did a respectful tailoring job in the project. According to Daniel, Socca was able to *"squeeze"* necessary information from the client. On the other hand, Daniel felt that Socca's *"bluntness"* hindered collaboration.

Socca's representative, on the other hand, had criticized that for some reason Cumma wanted to emphasize their expertise. Socca's representative had indignantly called after one project meeting to the project manager to talk about that issue (Field notes, project meeting May 6, 2004). Neither was it clear to Socca's representative what Cumma actually did or planned to do in the project.

Socca's representative, Walter, was also troubled because they were not able to make decisions in the project. With this he referred to the fact that, although decisions were made at project meetings, it was often necessary to return to them again and again. The field notes indicate (Aug. 30, 2004) how Walter asked: *"How does decision-making progress? Who decides and on what? It would be good to know so that matters do not need to be hashed over unnecessarily at meetings..."* It was often necessary to return to decisions due to questions or critique presented by Nofco.

Related to project management, according to the supplier Cumma's representative, a fault in project management was that the project manager was more worried about schedules than social and content issues: *"The project manager was more worried about these schedules and that some matters are taken care of rather than clarifying social issues or finding out why some things didn't work..."* Professionalism of the quality assurance group was also questioned: *"The reviewing group did not take any stand on whether the process was done correctly, they only paid attention to whether the documents were correctly re-*

corded, which is a little different matter (laughter)...” (John, supplier, Cumma)

4.2. Users’ Experiences

Users’ participation in the project was motivated by the assumption that the new system would significantly improve the work process: *“The way I was able to motivate myself during even the worst moments was the even greater dislike I had towards the current matters, that was always the light at the end of the tunnel, that I thought this system even if it were the last thing I did in this world...”* (Lisa)

However, according to Lisa, the considerable turnover of Cumma’s representatives in the project significantly hindered the progress of the project. Cumma’s role in the project had not become clear to her. She described these people as *“mystical people”, “Santa Clauses”* or *“UFOs”* in remarks such as *“It was as if Santa Claus or a UFO had entered the room...”*. Lisa also thought that, because of the dysfunctional collaboration and guardedness between the suppliers, she didn’t even feel like commenting on all the matters at the meetings. Lisa felt that collaboration in the project was very challenging, and that her adaptation to the project took a very long time. Nevertheless, it was not easy to find reasons for the difficult collaboration, although she thought it possibly resulted from the people’s manner of communicating and taking care of matters. According to Lisa, the problems were also partly caused by substance. Also another user representative, Sophie, felt collaboration did not materialize in the project regardless of numerous meetings: *“And an interesting thing is this collaboration, no matter what kinds of meetings are held, collaboration was not created...”*

One matter that emerged as a challenge to project was finding a common language from the users’ viewpoint. The language that was used was problematic: *“If someone mentions the word interface once more, I’ll jump out the window...”* (Lisa), *“Let’s speak about the matter without technology...”* (Lisa, project meeting June 11, 2004) Another user representative also brought out in the interview that *“In this type of technology project the supplier perhaps has no other forum than the project meeting. For this reason content gets less attention...”* (Sophie). Lisa thought the language used at project meetings hindered the progress of matters, because it was not immediately possible to find a common understanding on what the matter was about: *“Those people, mainly Socca and the project manager and then the Cumma people themselves, kind of talked over our heads, bypassed us in matters where I didn’t even know if we were supposed to take a stand on the matters...”*

Language came up as a form of collaboration in different ways. Sometimes language used was quite rude. For example, at one meeting of the project group (Field notes, Feb. 8, 2005) the supplier’s representative asked a user representative to specify a matter related to a certain substance area, and received as a reply that *“No goddammit, if you want a statement, then it is...”* (Lisa). Similar communication was also used in e-mail messages: *“Hell no, sometimes this principle of transparency of information takes on laughable dimensions...”* (Lisa, e-mail Feb. 9, 2005), and at project meetings: *“That implementation may be up shit’s creek...”* (Walter, project meeting March 1, 2005).

However, the following excerpt in the middle of a discussion about software versions (Project meeting Nov. 2, 2006) illuminates the occasional easy communication: *“I wonder what I was doing, because I didn’t notice it there on the screen...”* (Lisa) - *“You were probably on Messenger with someone”* (Ruut) - *“No, I was surfing on porno pages”* (laughter) (Lisa). The language used was humorous interaction lightening collaboration. At the project meeting, the participants also pondered explanatory text of the user interface, one user asking them to add the following to the explanatory text: *“Add there that if you dare, it depends on what kind of day the official has...”* (laughter)” (Ann, project meeting Nov. 2, 2006). At another meeting there was a discussion about possibly gathering earlier than usual for a day of testing and starting the day with coffee, whereupon Walter (supplier) said he probably wouldn’t be able to make it. Lisa (user representative) told him that *“You don’t need coffee, you can just stand in the corner, you don’t need drugs (laughter), they’ll just mix you up”...* (Project meeting March 1, 2005).

4.3. Nofco’s Experiences

Nofco’s representative, Sheila, thought a big problem in decision-making was that the suppliers were given the power to decide on matters in the project group: *“If the meeting is attended by the project group and the suppliers and if matters are handled at the meeting with a clean slate, as open questions, it may be difficult in practice to make decisions (if the project group is even the place where decisions at this level should be made?) among the members of the project group. I feel this type of situation gives the suppliers very many opportunities to even concretely participate in decision-making, and as I said earlier, I think that is quite a problem in a matter of this magnitude ...”* (Sheila, e-mail June 12, 2005).

Nofco’s representative had the understanding that in certain matters it was not even necessary to discuss,

because they had been decided already in the previous project (PreViWo). Decisions made in the previous project should not be questioned or changed. Nofco's members also felt it was problematic that integration of ViWo and PreViwo was hindered by the fact that Cumma did not convey information about the previous project (PreViWo): *"We assumed then that since Cumma was chosen as the second supplier, it would ensure the continuance ..."* (Sheila) However, *"The old information had not been passed on, that gatekeeper's task did not continue..."* (Sheila)

Nofco's representative saw collaboration between suppliers as *"Problematic in distribution of work and mutual relationships between the suppliers"* (Sheila, e-mail June 12, 2005). According to Sheila, this again had the effect of hindering integration of the current project (ViWo) and the previous project (PreViWo). In addition to the collaboration between suppliers, she was surprised that Socca had begun to design a user interface even though one was already available (Ruut, e-mail June 12, 2005). Sheila pointed out that hopefully the suppliers don't charge for work that they have done without an order: *"These suppliers are rascals enough to gladly do and produce more than was ordered if we're not careful..."* (Sheila, e-mail June 12, 2005).

According to Sheila, Cumma should have made sure they kept Alpha (user organization) up to date on what their areas of operation are. According to Cumma's representative (Peter), they again acted according to instructions received from Nofco. Nofco's representative, Sheila, thought that even the Alpha (user organization) did not have a picture of how these two projects relate to each other: *"Perhaps they also did not have an exact picture of how these two projects relate to each other (PreViWo & ViWo), which itself is quite a strange situation, let's not speak any more about that..."* (loud laughter) (Sheila)

According to Nofco's members large problems were caused in the project by matters coming up within short time spans: *"In other words, matters have come up kind of unexpectedly, or is that typical in IT projects and IS projects that it is so? I have pondered even from the standpoint of my own work that it is so... (related to) project planning and project management and these types of things. It is sort of like these matters fall in one's lap and I have felt that within the project we progress from project group to project group, ... When the pace is most intense, the life span has been a couple of weeks..."* (Sarah)

The problems of decision-making culminated on one hand in very "small" matters, like the outward appearance of the display. The field notes indicate, for example that at one project meeting (March 1, 2005) the participants discussed the display, where one pro-

ject member said *"This was the result of a terrible battle..."* (Ruut), to which Nofco's representative, Sarah said *"Well, I don't know if it was a battle..."*. However, Sarah hoped no changes would be made to what they had done.

4.4. Project Management's Experiences

At the beginning of the project, the people in project management felt both suppliers were very good for the project. At the beginning of the project the suppliers' representatives discussed the tool proposed by Socca, with which the work would be done. Cumma did not want to agree to use the tool proposed by Socca, and there was discussion among the project management people that it is not easy to turn Cumma's head because of the skill and know-how owned by the company. The fact that the other supplier's (Socca's) software contained some business secrets, and that one of the user organizations had no rights to it, had a significant impact on the solution to the software problem at this stage.

As the project progressed, the project management people's trust in Cumma's expertise began to wane. According to a member of project management, Thomas, they would not get what they expected from Cumma. *"...But these are such serious matters that they should be unerring, so if I think of Cumma's role, of which we spoke earlier, that what exactly is Cumma's expertise..."* It was felt that the effort Cumma put in the project was minimal, but they wanted to remain in the project. Thomas pondered how the steering group should regard the matter, since nothing necessarily was happening.

The project management people were worried about the supplier's attempt to avoid responsibility. The field notes indicate the following, for example: Ruut said (field notes 12.11.2004) that Matthew and Ruut (both members of project management) had been in the Cumma organization discussing agreements, and the result of the discussion was that Cumma does not want to be responsible for anything. Cumma's representative, Jack, felt he could not sign any agreement because he did not trust in the skills of his subordinate, a young girl named Ellie. Jack thus felt Ellie would not be able to do the work given to her well enough that he would dare to put his name on the agreement.

Unclear responsibilities become also apparent in an e-mail message sent to the researcher by Cumma's representative: *"Interesting definition of policy, that because it is related to a [technical matter], it belongs to Cumma! In my opinion the application form belongs to Socca, but Cumma has to take part in ensuring the implementation of the form by specifying nec-*

essary interfaces... “ (Peter, e-mail Aug. 31, 2004). Avoiding responsibility and shifting tasks to the other supplier were seen among project management as a serious problem. Many project members felt it would have been necessary to intervene in the problem: *“It was surprising that Matthew (project management), for one, had such a conciliatory attitude towards Cumma’s contrariness”* (Thomas, field notes 12.11.2004) Thomas describes collaboration between the suppliers as a struggle for power: *“And this tug-of-war between the suppliers has been mentioned in the review reports, for example, that it clearly has involved authoritative discussions and discussions about know-how and a little bit of taunting...”* ”

Ruut (project manager) felt that the suppliers assumed she knew everything. Later, though, Ruut felt she did not have to be an expert in all fields, but could trust that everyone brings their own expertise to the group. The project manager’s first impression of one of the suppliers on the basis of a phone call was that: *“It felt like he would try to strangle me along the phone line...”* (Ruut). Nevertheless, collaboration with this supplier turned out to be very good and reliable: *“After that it became clear, or my thinking changed in such a way that my confidential relationship with this other supplier (Socca) has improved, and the supplier was not bad after all, but rather very stabile and open and I feel we have a strong confidential relationship with this other supplier...”* (Ruut)

Thomas pondered the absence of user-representative of one organization (Gamma) from the project. He wondered why there was no representative from the organization in question, at least at the moment. He thought the reason was one person’s (Matthew, project management) participation in several previous projects and possible knots in human relations. Thomas also felt collaboration with Nofco was occasionally *“yeah-naw”* discussion. According to Simon (project management), the language that was used was hard and inappropriate, especially from the users. He referred to situations in the project, where the language used by project members towards each another was not respectful.

5. Summary and Discussion

In this paper we have explored a distributed, multiparty IS project by using phenomenographic approach. The research material was mainly grounded on unstructured interviews, observation, and field notes kept by researchers. The interviewees consisted of managers who acted in steering group, representatives of suppliers, members of research organization, representatives of Nofco and users active in the project. The research approach provided a rich empirical material that offered possibilities to get findings that are novel in IS research. The main findings are summed bi-directionally in Table 2.

Table 2. The different point of views about collaboration

	Supplier	User	Nofco	Project management
Supplier	Internal problems with trust in own employees; schedule problems; ”tattling” to the project manager; other supplier professional but blunt; other supplier strongly emphasizes their expertise and dictates; suppliers intentionally ”cutting corners”	Users’ ”barrel of wishes” related to the system; give unclear answers; supplier an interpreter between users and others.	Schedule problems; Nofco gives instructions that are followed; decisions cannot be made due to Nofco.	Project manager more interested in the schedule than the system; supplier does not trust project management’s review work
User	Supplier’s representatives’ turnover problematic, role unclear; tense relations between suppliers; no collaboration despite numerous meetings; lack of common language	No collaboration despite numerous meetings; motivated to participate	No collaboration despite numerous meetings; lack of common language.	No collaboration despite numerous meetings; lack of common language.
Nofco	No open communication; problems related to decision-making, work distribution, mutual relationships, people’s turnover, integration of PreViWo & ViWo; suppliers rascals; issues ”falling in one’s lap”; disappointed in supplier’s role in the project.	Problems related to the integration of PreViWo & ViWo	Confidence in own know-how, own role unclear.	No open communication, problems related to decision-making, schedule problems, unclear requirements; matters ”falling in one’s lap”.
Project management	Supplier uncommitted and avoids responsibility, supplier’s expertise questioned; power struggle between suppliers; relationship improved	Use hard language.	”Yeah-naw” discussion	Problems in taking action, human relation knots affecting

The section “Supplier” reveals that collaboration between two suppliers proved to be very challenging; issues related to avoiding responsibility, scheduling and trust were identified. Furthermore, the section exposes that the supplier felt that the decisions were not closed due to Nofco, which had been involved in the previous project and had made then many decisions influencing this project. Clearly power and politics can also be related to this observation. In addition, the section “Nofco” displays conflicts between Nofco, project management and suppliers. This network organization, aiming at facilitating inter-organizational collaboration, clearly run in many difficulties in doing so. Their task is clearly a challenge.

The role of collaboration is recognized in distributed IS projects, and insufficient trust and weak social relationships are known to hinder collaboration [13]. Adding to this, our research verifies the same phenomena in inter-organizational IS project context, where the involved organizations represent different types of organizations (Table 1). However, easy and humorous discussions appeared to smooth problems in communication in project meetings.

Our research adds to the findings by Levina [15] who has also explored multiparty IS projects. Differing from her study, our research also focused on users, the project team also including members of a network organization of the user organizations. Contrary to Levina’s finding on ignoring in collaboration and its influence on collaboration, our research highlights perceived lack of open communication that affected collaboration in the project.

Comparing to the risk factors introduced by Erickson and Evaristo [9] we found several similarities. We could identify problems with ownership, relationship management, project management, development processes and personnel. In our case, there were problems in defining and taking ownership both between organizations and within organizations. Nofco behaved as it owned the project that, in reality, was managed and financed by other actors. Intra-organizationally, ownership was contradicted by disclaiming responsibilities that had already jointly been allocated. Furthermore, many participants felt that their role in the project was not clear.

Related to user involvement, typical problems were identified. However, it was also shown that the users are not necessarily the resource weak group in the project, but they could “talk back” and use hard language. Regarding personnel, changes in project parties and their personnel caused problems and affected the presence of appropriate skills. Related to project management, the project manager was blamed to focus on managing the project instead of focusing

on the development work. This finding actually contradicts the traditional approach that emphasizes proper project management to minimize the project risks. Furthermore, the interviewees complained that too much emphasis was put on scheduling, cf. [9]. Therefore, we also identified problems that are not listed in [9]. An interesting finding, in addition to those related to project management and scheduling, was the problematic relationship between the actors representing the same professional party, in our case the suppliers, who did not rely on each others’ competence and output, cf. [19].

In all, our findings indicate the importance of social issues in IS development, cf. [13]. This study contributes through micro-level phenomenographic analysis, through which a detailed, inductive understanding of different actors’ ways of experiencing collaboration was gained. In contrast to traditional problems in collaboration between developers and users, our research led us to consider collaboration and relationships between actors and parties in a multiparty IS project. An interesting contribution to prevailing research is our finding about challenging collaboration between suppliers in an IS project. Our findings also emphasize the need of supportive atmosphere in project meetings. Furthermore, we argue that in case there are several organizations involved, the relationships should be cleared and the responsibilities should be straightened out to each participant.

As the lifespan of the development project lasted for several years, the interviews were settled in the middle of the project. The perceptions might be different if the interviews were repeated or scheduled later in the lifespan. In addition, the findings are only based on this one case. However, multiple cases would not have allowed such a thorough analysis.

Paths for future work include e.g. detailed analyses of the project management’s role in the project. This has not been analyzed yet in detail, relying on self-reflection of the involved researchers. In addition, existing social theories (e.g. Structuration theory, theory of communicative action) could be utilized to analyze the social issues, and particularly collaboration in IS development, not to forget prospective research on language and communication skills that will be returned later on. This theme deserves a paper of its own.

10. References

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