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Information technology and the first-line manager's dilemma: Lessons from an ethnographic study

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“WHO IS IN CHARGE, AND WHOSE RULES ARE FOLLOWED...?” POWER IN AN INTER-ORGANISATIONAL IS PROJECT

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Abstract

This interpretive grounded theory study describes and analyses major power issues in a Scandinavian inter-organisational IS project which spanned four organisations, two suppliers, one national organisation and a research organisation. The paper explores different dimensions of power that emerged during the project – sources of power, power as resistance, reasons for the power struggle, and power as exercised. We conclude that, while power issues in ISD projects are by no means a new phenomenon, these power issues were exacerbated in this IOIS project due to the project governance structures necessary to coordinate several organisations.,

Keywords: Power, inter-organisational IS project, Glaserian grounded theory

1 INTRODUCTION

In the literature on IS development and implementation, the influential role of power, politics and conflicts has been acknowledged for decades (Alvarez 2002, Gärtner & Wagner 1996, Hirschheim & Newman 1991, Howcroft & Wilson 2003, Markus & Bjørn-Andersen 1987, Markus 1983, Sarkkinen & Karsten 2005, Silva 2007, Yeh & Tsai 2001). The Scandinavian tradition has particularly highlighted the influence of power and politics in IS development and implementation, the emphasis being on the empowerment of the workers (Beck 2002, Gärtner & Wagner 1996).

It has been argued that the nature of IS development is always conflictual and political, and that researchers, instead of defining better methodologies and accepting managerialist agendas of IS development, should carefully analyse this conflictual and political context (Howcroft & Wilson 2003, Silva 2007). Silva (2007) has highlighted a lack of research on the politics of IS projects, and the challenges inherent in the belief that politics are ‘dark’ or illegitimate and somehow unsuitable for study. It has also been argued that academics should focus on dominance, power, marginality, and exclusions that take place both in IS development, adoption, and use (Beck 2002). Silva (2007) has argued in favour of an interpretivist approach for studying power and politics in IS, and this research fits into that category.

Conflicts and power struggle between users and IS professionals, and between users and managers, have been studied extensively over the years. In those studies, managers’ power over users has often also been criticised (Alvarez 2002, Hirschheim & Newman 1991, Howcroft & Wilson 2003, Kirsch & Beath 1996, Markus & Bjørn-Andersen 1987, Sarkkinen & Karsten 2005, Symon 1998, Yeh & Tsai 2001).

In the twenty-first century, inter-organisational projects have become much more common as a consequence of globalisation and standardisation in information systems. So far, inter-organisational information systems (IOIS), and especially their implementation with several stakeholders, have received only minor attention in the IS research (Evaristo, Scudder, Desouza & Sato 2004, Salmivalli 2008). Because there is even a larger number of stakeholders involved in inter-organisational IS projects, there is an even greater potential for conflicts (e.g. Kumar & van Diesel 1996, Levina 2005). In contrast to traditional problems in power between developers and users, our research considers the power issues between many more actors and parties in an IOIS project.

This paper discusses the power issues that arose in a public sector Scandinavian IOIS development and implementation project.

The research problem addressed by the paper is as follows:

What were the major power issues in a Scandinavian public sector IOIS project?

The paper is organised as follows. In the next section we present a summary of the relevant literature to this study. The third section outlines the research methodology. The fourth section gives some of the complex project case background of the study. The fifth section presents the findings of our grounded theory analysis. The sixth section discusses the implications of our findings, then we conclude our study with a brief summary of our contributions.

2 THEORETICAL FRAMEWORK

It is acknowledged that power is a very ambiguous and intangible concept and therefore exact definitions of it are difficult to give. Power is a multidimensional concept, and many definitions, interpretations and theories about it abound (Bourdieu 1998, Foucault 1980, Giddens 1984, Hardy & Leiba-O'Sullivan 1998, Jasperson, Cart, Saunders, Butler, Croes & Zheng 2002, Markus & Bjørn-Andersen 1987).

Many influential social theorists - such as Foucault, Giddens and Bourdieu - have conceptualised power. According to Foucault (e.g. 1980), power must be analysed something which circulates, or rather as something which functions in the form of a chain. Foucault was interested to study power in its external visage, which means that power installs itself and produces its effects. According to him, power is inescapable. In Giddens (1984) structuration theory, power has two different perspectives: the perspective of an action of the actor and the perspective of the structural aspect. Power is, then, the ability to make changes to behaviour, and control or dominate from an institutional perspective. Bourdieu (1998), on the other hand, is interested in power from the perspective of individual strategies. Bourdieu's practice theory discusses sources of power (economic, cultural/ knowledge, social) as a particular kind of relational resource. Agents can influence their own and other agents actions in a particular context using these resources.

These social theories have been widely utilized in IS. Foucauldian analyses of power have been quite popular during recent years (e.g. Doolin 1999, Sayer & Harvey 1997, Wynn, Whitley, Myers & DeGross 2002). These studies analyse disciplinary power in different IS contexts. Many studies using structuration theory have argued that IT conditions and shapes human action, but also that human action conditions and shapes IT (see e.g. Majchrzak, Rice, King, Malhotra & Ba 2000, Orlikowski & Robey 1991). Levina (2005), among others, has adopted Bourdieu's practice theory and focused on what people do and how their actions shape, and are shaped by, diverse sources of power resources.

Silva (2007) suggests that none of the three epistemologies used commonly by IS researchers – phenomenology, critical theory and structuration theory – are sufficient to engage with the 'dark side' of power and politics in organisations, as opposed to researching only the 'legitimate' face of power.

Jasperson et al. (2002) have pointed out that researchers have had problems defining and measuring the theoretical construct of power in IS area. They have identified common themes in power

conceptualisations: 1) *authority* 2) *centralisation, decision rights, participation in decision making* 3) *influence* 4) *politics* and 5) *power*. According to Silva (2007) authority is always contested, as formal rules are open to interpretation and that is the source of politics.

A very well known and extensive categorization of power is provided by Hardy and Leiba-O'Sullivan (1998). The first dimension shows that power is wielded by using various *resources* to affect the outcome of decision-making processes. In the second dimension, power is wielded by supervising *access* to those processes. In the third dimension power is wielded through *legitimation*, where power is embedded in the fabric of the system. The first two dimensions lean on the assumption that power is introduced only in the face of conflict (and opposition), whereas the third dimension acknowledges that power can be used to ensure that conflict never arises. The fourth dimension ('limits of power') enables the investigation of aspects of power which do not normally appear in the mainstream literature of power – for instance, while some actors may receive advantages from power relations, they can not control or escape them.

To Hardy and Leiba-O'Sullivan, power is integral to empowerment. To managers and mainstream management researchers, power is legitimate and functional. Power can be thus shared. In this case, empowerment can be as a tool to motivate employees to achieve organisational goals. For critical theorists, on the other hand, power is domination, and empowerment provides the means to combat the sources of domination.

	First dimension	Second dimension	Third dimension	Fourth dimension
Power of A over B	Management of resource dependencies	Management of decision-making processes	Management of meaning	None, power is embedded in the system
Interaction between A and B	Overt conflict	Overt or covert conflict	Apparent cooperation	Local struggles
Reason for B's failure to influence outcomes	B is aware of the issue and able to get it to the decision arena, but is unable to use power effectively to influence outcomes	B is aware of the issue but unable to get it to the decision arena	B is unaware of the issue and, so, has no will resist	Both A and B are prisoners of the prevailing discourses of power although A may derive greater advantage from them.
Empowerment of B's requires	Acquisition of resources and ability to mobilize them	Ability to gain access to the decision arena	Consciousness - raising and "delegitimation" strategies to create will to resist	Empowerment in the sense of freedom from power effects is not possible although local struggles may produce more positive experiences.

Table 1. *Empowerment and the Dimensions of Power by Hardy and Leiba-O'Sullivan, p. 462.*

As stated in the introduction, many studies (e.g. Kirsch & Beath 1996, Sarkkinen & Karsten 2005, Symon 1998, Yeh & Tsai 2001) have shown conflicts between different user groups and between IS professionals and user groups as widespread. It has been argued that user involvement has been used only as a buzzword or a weapon for achieving management goals (e.g., Hirschheim & Newman 1991, Howcroft & Wilson 2003, Kirsch & Beath 1996, Symon 1998). Gärtner & Wagner (1996) have analyzed the political frameworks of IS design and participation, and state that agenda setting related to the IS design and participation is important, as well as the legitimation of certain agendas over the others. Conflicts between different actors - workers, managers, consultants, unions and IS professionals - are evident in this process.

Markus (1983) has highlighted that the strength of resistance in an IS project is likely to be affected by the organisational position of the person to whom one loses power. According to Markus (1983) the

explanations of resistance are important because, however informal or implicit, they guide the behaviour and influence the actions taken by managers.

In distributed and multi-party IS projects, there is even a larger number of stakeholders involved, and empirical studies have revealed that there is a great potential for conflicts in this context, and that power relations between the multitude of stakeholders (e.g. IS professionals, users, graphical designers, strategists, different participating organisations) should all be acknowledged (e.g. Kumar & van Diesel 1996, Levina 2005).

It should be pointed out that, because this is a grounded theory study, although we reviewed the literature before embarking on analysis, we didn't use labels from the theoretical framework for to code the data. Glaser (1992) directs researchers to avoid forcing the data down preconceived theoretical avenues. The idea is that the emergent theory of the study determines the relevance or otherwise of the literature review. Thus we proceeded with an 'open mind rather than an empty head' (Dey 1999). Once the theory has emerged, it is then the duty of the grounded theorist to engage their emergent theory with the existing literature. The next section considers our methodology.

3 METHODOLOGY

This study is an interpretative study using Glaserian grounded theory (Glaser 1978, Glaser 1998) for data analysis and theory building. Grounded theory method is very suitable for research areas where there is little existing theory. In this case, grounded theory method was very useful because there is little existing theory in inter-organisational IS (IOIS) projects and especially their implementation area.

This research studied 8 organisational project teams and 2 inter-organisational project teams, in a large, three years long IOIS development and implementation project. The IOIS project studied, ViWo, was a Scandinavian public sector organisation collaboration. This research tracked the whole IS project and it had a unique approach – no framing questions were used, the focus was entirely on the experience of the project member.

Data collected in the project ranged from in depth interviews (250 pages of transcripts), to observations of project meetings (20), diaries (80 pages of notes), 48 memorandums of project and steering group meetings, and e-mails (over 700) containing what project members sent to each other during these years and other secondary data (the data of previous project) were also analysed.

Over the three year timeframe of the project, 36 different people were involved. Some people were involved only once or twice in project meetings. There were 20 active project members in the project, 14 of whom were willing to be interviewed. Among the interviewees were managers from the steering group, representatives of suppliers, members of the research organisation (Rhoo) associated with the project, and users active in the project. The interviews lasted from 45 minutes to two and a half hours. The open nature of the interviews enabled the interviewees to explain their deep feelings about the project that would not have surfaced otherwise. The interviewees told their own story about the project and its progress. It is said that through narrative stories we are able to get close to people's experiences (Clandinin & Connelly 1994).

In this study 'Glaserian' grounded theory technique was used as the method of analysis. Since 1990, grounded theory has evolved into two distinct versions (Urquhart 2001, 2007, Urquhart & Fernández 2006). This occurred on the publication of Strauss and Corbin's (1990) book which is a distinct departure from the classic "discovering of theory from data" in the seminal book of Glaser and Strauss (1967) which introduced grounded theory. The 1990 book helped popularise grounded theory and is widely used; however, it has also been described as rather formulaic and overburdened with rules Kendall (1999). From our perspective then, the Glaserian version has the twin advantages of being closer to the original, classic version of grounded theory, and of being much more flexible.

Glaser recommends that the researcher takes a very open approach in order to ensure that concepts genuinely arise from the data as opposed to preconceived questions, categories and hypotheses (1992). We allowed the data to suggest categories to us, rather than using preconceived categories. It is also recommended by grounded theorist that researchers collect the data over many phases of research - when the same concepts occur over and over again, the saturation of concepts can be considered reliable. This was our experience that the concepts recurred over different phases. Glaser also (1992, 1998) recommends the collection of rich, versatile data in the form of different interviews, observations, and diaries, and our data collection followed this directive.

We followed the Glaserian (and classic grounded theory) coding stages – open coding, selective coding and theoretical coding. According to Glaser (1978), the open coding is the most important building block of GTM. At the open coding stage, the interview data, field notes and e-mails were analysed line by line, and the project memorandums were analysed paragraph by paragraph. Urquhart (2001, 2007) has pointed out that line by line coding is recommended by both Strauss and Glaser and is demonstrably fruitful. However, as the project memorandums were secondary data, it was appropriate to code at a paragraph or page level (Urquhart 2007). The coding process was done by one researcher (first author of this article) and then discussed with second author of this paper. After discussions, some code names were changed and open codes reallocated to different categories.

During selective coding and through an iterative process, we discovered our emergent categories. We then considered the relationships between categories during theoretical coding, and analytic memos (Glaser 1992) assisted with this process. Glaser (1978) emphasis that the bedrock of theory generation is the writing of theoretical memos. One of our emergent categories was power, and it is this concept that we concentrate on in this paper. In this study we can indicate what are the main strengths of Glaserian grounded theory method. A detailed and systematic analysis of data allows the discovery of new concepts.

4 PROJECT BACKGROUND

Here we give some of the complex background of the IOIS project, to help with interpretation of the findings.

4.1 History of the project

ViWo was preceded by a pilot project called PreViWo. PreViWo was implemented in three steps (specification, interface pilot and planning) in the years 2002-2003. The aim of the PreViWo project was defined as “*to specify and implement a pilot IS to support a process, its actors and task performed by them*” (Project card, March 8, 2002). Table 2 contains the actors in the pilot project. The pilot project was influential in framing the organisation of the larger project we studied (ViWo), and it could also be seen that the history of the pilot project influenced the perceptions of the participants. Alpha was the leading organisation for the pilot project as the organisation who applied and received funding for the project.

Organisation	Role of Organisation
Ministry	Ministry responsible for funding the pilot project
Nofco	Consortium of user organisations in charge of the project (a virtual organisation)
Opti	Consortium of user organisations (an organ of cooperation) that used a similar IOIS
Nuovo, Eino	Suppliers of the software
Cumma	Expert consultants
Alpha	User organisation that was a member of Nofco and Opti and initiated the project

Table 2. Organisations involved in PreViWo

4.2 Main players – ViWo project

The goal of the IS project was that an Inter Organisational IS (IOIS), named ViWo, would be designed and taken into use by several organisations of the same type. The project aimed to carry out a pilot test of the IS in these organisations before establishing the system at the national level. The development of ViWo involved electronification of a work process to facilitate office work, consolidate information across organisations, and manage key activities.

In the ViWo project, Nofco was no longer in charge of the project - a project management organisation, Rhoo, was brought in. They also managed some research objectives around the project. The key user organisations now consisted of Alpha, the original lead user organisation, plus user organisations Beta, Gamma and Delta who came from Nofco and Opti. Nofco now consisted of 21 organisations, and it would be these organisations that would eventually use ViWo. The organisations collaborated with the relevant Ministry, suppliers and consultants.

Organisations	Role of Organisation
Ministry	<ul style="list-style-type: none"> Ministry responsible for funding the IOIS project
Nofco	<ul style="list-style-type: none"> Consortium of 21 user organisations (Virtual organisation) The basic function of Nofco was to promote and develop locally, regionally, and nationally the utilisation of IT and to enhance inter-organisational collaboration in multiple research-related issues and administrative practices
Alpha, Beta, Gamma, Delta	<ul style="list-style-type: none"> Lead user organisations in the project Alpha was also the fund holder for the project
Rhoo	<ul style="list-style-type: none"> Organisation responsible for project management and research objectives
Socca	<ul style="list-style-type: none"> Software company that supplies the software solutions for the project
Cumma	<ul style="list-style-type: none"> Part of the national research network that develop research and IT based services for the needs of research and education, and the supporting IT administration Acted as an expert advisor. Withdrew from the project before it ended

Table 3. Organisations involved in ViWo

Cumma, eventually, withdrew from the project: *“We withdrew from so many occasions that we realized that we could not continue in this way. This was probably because we received a role that was more demanding than the one we pursued in the initial discussions and negotiations...”*(Jack, Supplier Cumma)

4.3 Organisational project members in ViWo

The table below names members of each organisation and their roles in the project. As can be seen below, there were a large number of people involved, and some had experience of the previous project.

Organisations	Members and their roles
Ministry, Financier	<ul style="list-style-type: none"> Marie – Govt Minister, steering group member
Nofco, Consortium of user organisations	<ul style="list-style-type: none"> Sarah; also previous member of PreViWo Sheila; steering group member, previous project manager of PreViwo Gabriel attended project group meetings occasionally Hale; Paul; Steering group members
Alpha project team User organisation,	<ul style="list-style-type: none"> Lucy; Project leader. Also previous member of PreViwo. Member of steering group

and fund holder	<ul style="list-style-type: none"> • Lisa; User representative (of 11 organisational units), also previous member of PreViwo • Arthur; Expert, Opti Consortium, previous member of PreViwo • Esther, Lauren and Thod; Opti Consortium people, attended project group meetings occasionally • Sam, user representative, attended project group meetings occasionally
Beta project team User organisation	<ul style="list-style-type: none"> • Kathy; Opti Consortium person, attended project group meetings occasionally. Steering group member, also previous member of PreViwo • Heather, Tom; User representatives • Katie; User representative, present in some steering group meetings
Gamma project team User organisation	<ul style="list-style-type: none"> • Ellen, User representative, present in some steering group meetings • Martha; User representative • Pamela; Steering group member, previous member of PreViwo • Alice; Steering group member, previous member of PreViwo
Delta project team User organisation (Different kind of IS than in other User Organisations)	<ul style="list-style-type: none"> • Tim; Expert, Steering group member • Sophie, Ann; User Representatives • Susan; Steering group member
Rhoo , Organisation responsible for project management and research, parallel organisation for user organisations	<ul style="list-style-type: none"> • Matthew; Project leader (also previous member of PreViwo and Opti Consortium) • Ruut; Project Manager, Steering group member • Rachel; assistant project manager, Member of Quality Group • Thomas, Simon; Members of Quality Group
Socca , Supplier, Software producer	<ul style="list-style-type: none"> • Walter • Tom. Attended project group meetings occasionally
Cumma , Experts (Withdrew from the project before it ended)	<ul style="list-style-type: none"> • John, previous member of PreViwo • Peter, Jack, attended project group meetings occasionally. Previous member of PreViwo • Daniel, attended project group meetings occasionally • Ellie, member of project group and also present in some steering group meetings • Mark

Table 4. Project group organisations and their members related to ViWo

A difficult question was who would be the ViWo project manager. ViWo was perceived to be a demanding project, and an experienced manager would be needed. Matthew, the Project Leader of Rhoo, suggested to Lucy and her colleagues from Beta and Gamma that Rhoo could take the responsibility of leading the project, Ruut being the project manager. This suggestion was approved, and so the project manager changed: in PreViWo it was Sheila from Nofco but in ViWo it was Ruut from Rhoo. Ruut had extensive experience in practical software development. It was envisaged that, in addition to Matthew and Ruut, Rhoo could provide a three person quality assurance group for ViWo development. When it came to the choice of software vendors, Matthew's argument was that Socca would deliver a useful system even in the situation of unclear client requirements.

5 THE FINDINGS

Power was one core category which emerged through the grounded theory analysis, and this section discusses the category in detail. We identified *Sources of Power*, *Power as Resistance*, *Reasons for the*

Power Struggle and *Power as Exercised* as important selective codes of the category. Table 5 presents the open codes and selective codes that make up the category.

Category	Selective Codes	Open codes
POWER	Sources of power	Legitimate power, Expert power, Politic power
	Power as resistance	Control of decision making, Tensions between Old and New, Seeming Acceptance, Insecurity
	Reasons for the power struggle	Previous project, Positions in project, Jargon, Time pressure, Unclear responsibilities
	Power as exercised	Final authority, Veto power, 'Forged power'

Table 5. Construction of Power Category

5.1 Sources of power

This selective code illustrates the different sources of power in the project. For instance, Ruut (Project Manager, Rhoo) prohibited some project members attending the project meetings by using her *legitimate power*. She was pulling strings by not inviting all former people (Nofco, Consortium of User Organisations) to the project meetings. Some members guessed that she did it that was able to avoid competition between her and the previous project manager of PreViWo. She also sent an email to Simon (Rhoo) that his presence in project meetings is not necessary. Simon was amazed and asked if some other project management presence was necessary, if his presence was not. It was speculated that for some reason they did not get on well with each other.

Expert power was also in evidence and conflicted at times with the project managers *legitimate power*. For instance, there was a *'tug-of-war'* between the suppliers and the project manager around various issues. The discussions were *"little bit hostile"* (Thomas, Rhoo). Supplier Cumma felt that disagreements were frequent and faults were dealt with by *"tattling"* to the project manager. So Supplier Cumma sought background support for their work from other project members on the basis of their *expert power*. At that time, Cumma had a good reputation and there was discussion among the project management people that it was not easy to disagree with Cumma because of the skill and know-how owned by the company. Later, however, the confidence in Cumma started to wane.

Thomas (Rhoo) pondered how the steering group should regard the matter, since nothing was happening. Thomas thought that the roles of *"generals"* and *"officers"* were not defined and consequently attempts were made *"to transfer war leadership onto wrong shoulders"* Thomas thought that because *legitimate power* were not defined in project it caused that people *'took'* power and there were not abilities to manage it. This caused *'anarchistic'* behaviour in his opinion.

In addition to *legitimate* and *expertise power* there was *political power* used in the project, as shown in how the project was represented as a success to those outside the project. At the end stage of the project, Nofco announced that a journal article had been published on the ViWo project. The announcement incorporated a message requesting receivers to notify their international partners of the publication of the article. At that stage, this raised criticism among the project members, because they thought that Nofco had wrongly collected merit from work that it had neither planned nor implemented alone. The issue came up among the employees of the other supplier as well as among the project management. Thus, the representative of the other supplier, Walter, posed the question: *"...what was it that Cumma had planned and Nofco implemented? And noted that Socca's name had not been mentioned at all in that connection ..."* (Walter, Supplier Socca, Email June 30, 2005).

5.2 Power as resistance

In the experiences of project members, the notion of ‘*power as resistance*’ also emerged. There were situations where project members combated or at least wanted to combat domination by other project members.

Some members wanted for example to take *control of decision-making* in the project. “*Who decides and on what? It would be good to know so that the matters do not need to hashed over unnecessarily at meetings...*” (Walter Supplier Socca). *Control of decision-making* was a central problem in the project which caused resistance. The decision-making process was seen as “*yeh-naw discussion*” (Thomas, Rhoo) and as a “*competition*” (Ruut, Project Manager, Rhoo). There were tensions between the new and old project members. Both project management and supplier Cumma felt that it was often necessary to return to decisions due to questions or critique presented by Nofco (Consortium of User Organisations). Ruut (Project Manager, Rhoo) complained that it was difficult to see whose rules should be followed, although decisions were made at project meetings. Both Suppliers and Project Management felt that the representatives of Nofco (Consortium of User Organisations) inhibited decision-making. Jack’s (Supplier Cumma) quotation reveals that problem was that “*too often problems that emerged from practical work or were brought up on discussions were ignored by pointing out that the process had already been defined...*” Sheila (Nofco,), for her part, saw that really big problem was that suppliers were given the power to decide on matters in the project group.

Tensions between old and new were evident because of the previous project. Ruut, Project manager felt that she was an “*outsider*” when Sarah and Sheila (Members of Nofco) felt that maintaining an artificial separation between these two IS projects caused problems for organisational memory. “*We assumed then that since Cumma was chosen as the second supplier, it would ensure the continuance...but the old information had not been passed on, that gatekeeper’s task did not continue...*” (Sheila) Sheila was, for example, surprised that Socca had begun to design a user interface even though one was already available that had been done in PreViWo.

There were also situations, where some people were aware of controversial issues, but were unable to use power effectively to influence outcomes or unable to get it to the decision making arena. In many cases project members just agreed to accept proposals (*seeming acceptance*), despite disagreeing with the decision.

Unclear plans caused *insecurity* among the project members. It was difficult to plan project schedules and estimate future workloads. So the members of Nofco demanded that some kind of long term plans should be made. “*In other words, matters have some 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 is it so... (related to) project planning and project management and these types of things...*”(Sheila)

5.3 Reasons for the power struggle

When interviewing project members about their experiences, the topic ‘*reasons for the power struggle*’ also emerged. There were various open codes which made up the selective code of reasons for the power struggle; *previous project, positions in project, jargon, time pressure, and unclear responsibilities*.

The *previous project* affected the power struggle in many ways, for example leading questions could be asked by those who had knowledge of the previous project to those who did not. Ruut the project manager felt for example that it was difficult to see whose rules should be followed: “*Naturally the previous project has caused pressures especially because the former people are there. I have sometimes sensed an air of competition concerning who is in charge and whose rules are followed...*” (Ruut).

The previous project (PreViWo) managers were not invited to take charge of the ViWo project and the suppliers were replaced. Matthew (Rho) pointed out that discontent with PreViWo (schedule and specifications problems) had resulted in an effort to change actors in the new project.

It also became evident that the representative of the supplier (Cuma) who had been involved as an expert in (PreViWo) did not support the use of the material in the further project: “*John described the specifications in his colourful style as suitable to be thrown into a waste basket...*” (Matthew)

The *positions in the project* were very different to the PreViWo project. The quality of the specifications and the poor success of PreViWo were the reasons for the adoption of a different pattern of organisation in the new project. The project manager from Nofco was changed in summer 2003 because of project management issues. The suppliers were replaced in early 2004 because of the poor quality of the specifications.

Interestingly, Nofco’s members felt that too much power was given to suppliers to decide on matters. Suppliers, on the other hand, said that Nofco’s representatives and project management ignored many problems by saying that the process had already been defined.

The use of *jargon* was a problem in the project. John (Supplier Cuma) thought that users should take more part in decision-making, but the problem was, according to users, that it was difficult to understand technical matters. Lisa (User Representative, Alpha) felt that it was difficult to form opinions because she didn’t understand what was discussed. “*If someone mentions the word interface once more, I’ll jump out the window...! Let’s speak about matter without technology...*” (Lisa). Eventually, the users demanded that the project manager and supplier use language which they could understand.

Time pressure was also something which contributed to the power struggle. Project members had very different perceptions about the *time pressure* in the project. One project member pondered on how it was possible that people felt that there was no time to have a lunch or even to go to the bathroom. But she encountered a different attitude from other project members “*Amazing that we wait at a meeting for an hour while someone (user representative) feeds her dog*”.

Unclear responsibilities become also apparent in an e-mail message sent to the researcher by Cuma’s representative: “*Interesting definition of policy, that because it is related to a [technical matter], it belongs to Cuma! In my opinion the application form belongs to Socca, but Cuma has to take part in ensuring the implementation of the form by specifying necessary interfaces...*” (Peter, e-mail Aug. 31, 2004).

5.4 Power as exercised

How power was actually exercised in the project was very interesting. We found three open codes for the selective code power as exercised.

Final authority: The other project leader, Lucy (Alpha) said that she make a lot of decisions trusting to others views, using intuition and feelings, because she thought that she was layman in these things. She said that, for example, that when project manager pointed out something in a plausible way, she gave the necessary final authority. Final authority did not always rest with the same person. A good example was the situation where the project manager and Sheila (Nofco’s representative) battled about the appearance of the display, and where project manager finally climbed down. Some decisions were achieved asking project manager to use her final authority.

Veto power: Nofco had the ability to veto decisions, albeit informally. It was often necessary to revisit to decisions due to questions or critique from user organisations. Ruut (Project Manager, Rho) complained that it was difficult to see whose rules should be followed, although decisions were made at project meetings. Both Suppliers and Project Management felt that the representatives of Nofco (Consortium of User Organisations) inhibited decision-making.

“Forged” power. This was a positive experience as a result of organising and of social relationships. Things were done at short notice at the request of the project manager because she wielded this type of power. The members of Nofco felt that this was how the project manager got people to do things she wanted.

6 DISCUSSION

We have shown in the previous section the complex power issues that arose in a Scandinavian IOIS project. We illustrated different selective codes of power that occurred – sources of power, power as resistance, reasons for the power struggle, and power as exercised. While sources of power were easy to identify, it was also easy to see how resistance occurred. Reasons for the power struggle seemed to revolve around both the history of the project and unclear responsibilities. Power as exercised in the project came down to who could actually have the final authority in the project organisation structure, but this final authority was often contested and switched between people. Resistance was indeed more likely if the individual was a peer of the individual trying to impose the decision (Markus 1983).

The governance of the project was particularly challenging because of the number of organisations and structures involved. This is a potential problem for all IOIS projects, as of course governance does need to be defined between organisations in such projects. In this particular instance that the project structure, as set out, was a very complex one, with undefined governance and responsibilities. In particular, the authority of Nofco, the user consortium and its relationship to the lead organisations was poorly defined. What makes it even more complicated is that the background of the project was very ambiguous and unclear to many participants. The complex project structure led to all sorts of unforeseen problems. Silva (2007) argues that authority is always contested, as formal rules are open to interpretations and that is the source of politics.

In this case, all participants (users, suppliers, project management personnel and representatives of Nofco) had power in certain situations, but were also resisting the power of somebody else in other situations. In many cases it seemed that this situation was reciprocal, each actor in turn having power and resisting domination. For example, the users used their power to change topics of discussion, suppliers required users to make decisions, and Nofco criticised the project manager for giving suppliers too much power in decisions. There were also some situations, where some people were aware of controversial issues, but were unable to use power effectively to influence outcomes or unable to get it to decision making arena. The users were not necessarily the resource weak group in the project. Users could “talk back”, and in some instances even prevent the decision making and the progress of the project. Both project management and suppliers were affected by this, but could not use their power effectively to change the situation. In all, the ‘limits of power’ from the critical viewpoint was palpable in the case.

Hardy and Leiba-O’Sullivan (1998) enable us to see that aspect of power, which does not normally appear in the mainstream literature of power - ‘limits of power’. Limits of power were clearly seen in the case. Jaspersen et al. (2002) and Markus and Bjørn-Andersen (1987) also emphasise that power which inheres in an official position. Our study reveals that in some situations it is easy to use power over others in some position, but on the other hand, it is also shown that it is possible to counter that power.

We can note that in IOIS projects, when there are any number of organisations and structures involved, it is more likely that there will be ‘competition’ and ‘tug-of war’ situations, and that legitimate power is used as ‘justice’.

Our study also illustrated how unclear roles influenced the exercise of political power. According to Silva (2007), the study of power poses challenges because of the twofold nature of power: 1) power that arises from positions of authority or 2) its informal dimension, i.e. politics. Most of the challenges in this study came from the informal dimension, which then came up against a veto in the formal authority structures.

7 CONCLUSION

Our research raises many important issues related to research on power in the IS field. We agree with Silva (2007) that we need research on power that emphasises the interpretations of meanings, intentions and actions which are suitable for making sense of such a complex phenomenon. In contrast to traditional problems and power struggle between developers and users or managers and users, our research shows that in a multiparty IS project it is extremely difficult to say who 'has' power and who is in need of 'empowerment'. We have also made a methodological contribution, we feel, by our detailed consideration of day to day issues of power, using grounded theory analysis.

In contrast to traditional problems and power struggle between IS professionals and users or managers and users, this research shows that in an inter-organisational IS project it is difficult to say who 'has' power and who 'lacks' power. In all, power is clearly a complicated matter and there is no clear cut way of defining "whose power over whom" is to be analysed, in IS setting or elsewhere.

We would also contend that, with the advent of globalisation, there are an increasing amount of IOIS projects in existence, and that there is a need to research power issues in such projects. The potential for conflicts in such projects are greater than in organisational projects, because of the need to set up agreements and governance structures between parties involved in such projects. We urge IS researchers to explore how particular governance structures might either constrain or enable conflicts in such projects.

References

- Alvarez, R. (2002). Confessions of an Information Worker – a Critical Analysis of Information Requirements Discourse. *Information and Organization*, 12 (2), 85-107.
- Beck, E. (2002). P for Political. Participation is not Enough. *Scandinavian Journal of Information Systems*, 14 (1), 77-92.
- Bourdieu, P. (1998). *Practical Reason: On the Theory of Action*. Stanford University Press, Stanford, California.
- Clandinin, D. J. and Connelly, F. M. (1994). Personal Experience Methods. In *Handbook of Qualitative Research* (Denzin, N.K and Lincoln, Y.S. Eds.), pp. 413-427, Thousand Oaks: Sage Publications.
- Dey I (1999) *Grounding grounded theory: guidelines for qualitative inquiry*, Academic Press, San Diego, 1999
- Doolin, B. (1999). Information Systems, Power, and Organizational Relations: A Case Study. In *Proceedings of the 20th International Conference on Information Systems*, pp. 286-290. USA, Charlotte.
- Evaristo, J.R., Scudder, R., Desouza, K.C., and Sato, O. (2004). A dimensional analysis of geographically distributed teams: a case study. *Journal of Engineering and Technology Management* 21 (3), 175-189.
- Foucault, M. (1980) *The Eye of Power*. In *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, (Gordon, C. Ed.), pp. 146-165, Pantheon Books, New York.
- Giddens, A. (1984). *The Constitution of Society*. Polity Press, Cambridge.
- Glaser, B. G., and Strauss, A. L. (1967). *The Discovery of Grounded Theory*. Aldine Publishing Company, Hawthorne, NY.
- Glaser, B. G. (1978). *Theoretical Sensitivity: Advances in the methodology of Grounded Theory*. Sociology Press, Mill Valley, CA.
- Glaser, B. G. (1992). *Emergence vs. Forcing: Basics of Grounded Theory Analysis*. Mill Valley, CA: Sociology Press.
- Glaser, B. G. (1998). *Doing Grounded Theory: Issues and Discussions*. Mill Valley, CA: Sociology Press.
- Glaser B. G. (1999). The Future of Grounded Theory. *Qualitative Health Research* (9) 6, 836–845.

- Glaser B. G. (2003). *The Grounded Theory Perspective II: Description's Remodeling of Grounded Theory Methodology*. Mill Valley, CA: Sociology Press.
- Glaser, B. G. (2004). The Grounded Theory Review. *An International Journal* (4) 1, i-109.
- Gärtner, J. and Wagner, I. (1996). Mapping Actors and Agendas: Political Frameworks of Systems Design and Participation. *Human-Computer Interaction* 11 (3), 187-214.
- Handy, C. (1999). *Understanding organizations*. 4th Edition. Penguin, London.
- Hardy, C. and Leiba-O'Sullivan, S. (1998). The Power Behind Empowerment: Implications for Research and Practice. *Human Relations* 51 (4), 451-483.
- Hirschheim, R. and Newman, M. (1991). Symbolism and Information Systems Development: Myth Metaphor and Magic. *Information Systems Research* 2 (1), 29-62.
- Howcroft, D. and Wilson, M. (2003). Paradoxes of Participatory Practices: the Janus Role of the Systems Developer. *Information and Organization* 13 (1), 1-24.
- Jasperson, J. S., Carte, T. A., Saunders, C. S., Butler, B.S, Croes, H.J.P. and Zheng, W. (2002). Review: Power and Information Technology Research: A Metatriangulation Review. *MIS Quarterly* 26 (4), 397-459.
- Kendall, J. "Axial Coding and the Grounded Theory Controversy," *Western Journal of Nursing Research* (21:6), 1999, pp. 743-757.
- Kirsch, L. and Beath, C. (1996). The Enactments and Consequences of Token, Shared and Compliant Participation in Information Systems Development. *Accounting, Management and Information Technologies* 6 (4), 221-254.
- Kumar, K. and van Diesel, H.G. (1996). Sustainable Collaboration: Managing Conflict and Cooperation in Inter-organizational Systems. *MIS Quarterly* 20 (3), 279-300.
- Levina, N. (2005). Collaborating on Multiparty Information Systems Development Projects: A collective Reflection-in-Action View. *Information Systems Research* 16 (2), 109-130.
- Majchrzak, A., Rice, R., King, N., Malhotra, A. and Ba, S. (2000). Technology Adaptation: The Case of a Computer-Supported Inter-Organizational Virtual Team. *MIS Quarterly* 24 (4), 569-600.
- Markus, L. (1983). Power, Politics, and MIS Implementation. *Communication of the ACM*, 26 (6), 430-444.
- Markus, L. M. and Bjørn-Andersen, N. (1987). Power Over Users: Its Exercise by System Professionals. *Communications of the ACM*, 30 (6), 498-504.
- Nelson, R.R. (2007). IT Project Management: Infamous Failures, Classic Mistakes, and Best Practices. *MIS Quarterly Executive*, 6 (2), 67-78.
- Orlikowski, W. and Robey, D. (1991). Information Technology and the Structuring of Organizations. *Information Systems Research*, 2 (2), 398-427.
- Salmivalli, L.(2008). *Governing the Implementation of a Complex Inter-Organizational Information System Network. The Case of Finnish Prescription*. Dissertation work. Turku School of Economics.
- Sarkkinen, J. and Karsten, H. (2005). Verbal and Visual Representations in Task Redesign: How Different View-points Enter into Information Systems Design Discussions. *Information Systems Journal*, 15 (3), 181-211.
- Silva, L. (2007). Epistemological and Theoretical Challenges for Studying Power and Politics in Information Systems. *Information Systems Journal*, 17, 165-183.
- Sayer, K. and Harvey, L. (1997). Empowerment in Business Process Reengineering: an Ethnographic Study of Implementation Discourse. In *Proceedings of the 18th International Conference on Information Systems*, pp. 427-440 USA, Atlanta.
- Symon, G. (1998). The Work of IT System Developers in Context: An Organizational Case Study. *Human-Computer Interaction*, 13 (1), 37-71.
- Urquhart, C. (2007). The Evolving Nature of Grounded Theory Method: The Case of the Information Systems Discipline. In *The Handbook of Grounded Theory* (Charmaz, K. and Bryant, T. Eds.), pp. 311-331, Sage Publishers.
- Urquhart, C. and Fernández, W. (2006). Grounded Theory Method: The Researcher as Blank Slate and Other Myths. In *Proceedings of the Twenty Seventh International Conference on Information Systems* (Straub, D and Klein, S. Eds.), pp. 457-464, US, Milwaukee.

- Urquhart, C. (2001). An Encounter with Grounded Theory: Tackling the Practical and Philosophical Issues. In *Qualitative Research in IS: Issues and Trends* (Trauth, E. M. Ed.), pp. 104-140. Idea Group Publishing, USA, Hershey.
- Yeh, Q. and Tsai, C. (2001). Two Conflict Potentials During IS Development. *Information and Management* 39 (2), 135-149.