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A STUDY OF PATTERNS OF COMMUNICATION
IN MANAGEMENT ACCOUNTING AND CONTROL PROJECTS

AKADEMISK AVHANDLING

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A study of patterns of communication
in management accounting and control projects

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Preface

This report, carried out at the Economic Research Institute, is submitted as a doctor's thesis at the Stockholm School of Economics.

The author has been entirely free to conduct his research in his own ways as an expression of his own ideas.

The institute is grateful for the financial support, which has made this research possible.

Stockholm in October 1996

Sven-Erik Sjöstrand
Director of the Institute

Mats Lundeberg
Head of the Department of
Information Management

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First, I want to thank all the people I have interviewed in connection with this study. By candidly sharing their observations, views and opinions with me they have provided the material that forms the basis of the thesis.

Next, I am grateful to all those who have participated in my endeavour to build a piece of research from the material and the many people who have offered beneficial comments on my work at various stages of the process. Mats Lundeberg, Nils Brunsson and Lars Samuelson have served as my advisors. The repeated meetings with Mats throughout the process and the feedback on my drafts by Nils and Lars have provided valuable input. All the informal discussions with Ragnvald Sannes, Anders Mårtensson and my other colleagues at the department of Information Management have also been a source of inspiration for and quick feedback on more and less elaborated ideas. Once the book has taken form, repeated consultations with Maria De Liseo and Allan Peh on my use of the English language have improved its readability.

Finally, I would like to thank Mats Lundeberg and Rune Castenäs for helping me secure financial support from the Stockholm School of Economics. The path from idea to completed thesis has been long and arduous. Without considerable periods of time for reflection and concentration on writing, the thesis would not have been completed. The financial support from the School helped provide these periods.

Given time, discussion partners, input and inspiration there only remained one vital ingredient: persistence. I found the recipe in McCloskey's *The Writings of Economics*:

"locate chair; apply rear end to it; locate writing implement; use it."

Increasingly, Anders and I have cut discussions short with a cheerful "Apply butt!". I, for one, have noted that it works.

Stockholm, October 1996   *Alf Westelius*

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1 Background and purpose

1.1 Introduction

This book deals with project management in management accounting and control projects. I here use "Management accounting and control projects" to denote projects that serve to design new or revised principles for management accounting and control in an organisation, and to implement these principles. The ultimate aim of management accounting and control in business firms is to further the profitability of the business operations. To achieve this, it has to influence the behaviour of people in the organisation. A system of management accounting and control, therefore, should make a difference to how people behave.

The task of a project manager in a management accounting and control project is to manage the project in such a way that its end result supports the management accounting and control process. Less successful projects could for example result in:

- a management accounting system that does not accurately describe the business operations,
- a management accounting and control system that does not match the needs of those who could be its users,
- accounting principles that are not understood by the users, who therefore misinterpret the output they receive,
- a management accounting and control system that requires an unnecessarily large effort to be understood and used properly, or
- accounting principles and systems that are not accepted and thus not used.

A problem for the project manager to handle is that the people who are affected by the project and its results each have their own way of perceiving and interpreting the world that differs to some extent from everyone else's; they have different perspectives. They could, for example, each interpret the management accounting data differently or have different

criteria for what they view as a useful decision aid. They may have different views of the consequences of applying a specific set of principles of management accounting and control. They may even have different perceptions of how the business activities are performed.

I propose the term 'Perspectives management' to highlight the importance of differences in how people perceive and interpret their business setting. Perspectives management is a term to be interpreted analogously with terms such as cash management, risk management, and process management. They each focus on certain aspects of the business operations – liquidity aspects, risk aspects, or process aspects – and suggest that this aspect should be explicitly managed. Thus *perspectives management* stresses that similarities and differences between the individual perspectives of stakeholders deserve explicit recognition, and that actions should be based on this recognition.

By *perspective* I mean the mental map a person relies on when interpreting things. The perspective of each person is unique, consisting of the specific mix of knowledge and values, previous experience, and position the person has. The position, or situation, is the collection of relations between the individual and the people, groups, organisations, objects, processes, and structures that surround him. I thus see perspective as contingency dependent. (A more detailed explanation is given in section 3.2.2.)

Managing perspectives starts with the question of identifying similarities and differences between perspectives of stakeholders which are important for achieving the purpose of the project. That knowledge can then be used to design the management accounting and control system, and can also, or perhaps alternatively, be used to design the process of designing and implementing this system.

Management involves choice. For the project manager to identify each stakeholder, understand every aspect of their perspectives, and think through how each person will interpret and react to every action the project manager undertakes is probably neither feasible nor desirable. The objective is rather to achieve the intended effects of the project with the resources available and without encountering expensive surprises. Such surprises could include that the new management accounting and control system does not gain acceptance and is abandoned, or, less dramatically, that important aspects of the business operations are overlooked at the time of design, leading to costly revisions later in the process.

Finding ways to access the perspectives of relevant stakeholders in the project is thus at the core of perspectives management. How well the project succeeds in helping to create a management accounting and control system that serves its users and the organisation depends on this access. The project manager's ability to gain access to relevant perspectives depends on his knowledge of the business operations, the individuals in it, and of management accounting and control. It also depends on how he interprets what he knows, and on how he chooses to acquire further knowledge.

It is through communication that he and his project receive new input. The project manager's communication may be focused on input: he may seek to understand other people's tasks, views and goals, the business operations and their environment. It may also centre on output: informing, explaining, educating and convincing. In either case the communication involves unique individuals, each with their own perspective on the business operations and the project matter.

In this thesis I study patterns of communication. These patterns are seen in the context of perspectives management – what is achieved through the patterns of communication, and what problems relating to differences in perspective are not solved by the patterns of communication in the projects studied?

1.2 Purpose

The purpose of this study is to identify patterns of communication that project managers develop in management accounting and control projects, and what consequences these patterns have on the effects of the projects. The patterns of communication and the consequences will be viewed in relation to the long-term goal of creating a system of management accounting and control that is used to advantage.

1.2.1 Patterns of communication

The management accounting and control principles will affect people throughout the organisation. They will point out aspects that will be measured and reported: some people will be subjected to scrutiny accord-

ing to the principles, while others will be given the option to scrutinise the work of others. By focusing on some aspects and not on others, the principles will also define aspects that will be left to the discretion of those described by not measuring those aspects. No one person will know and understand all aspects of how the organisation functions and how the people in the organisation think and react. It is then a challenge for the project manager to use as much as possible of the entire intelligence of the organisation when designing and implementing principles of management accounting and control.

The aspects of the project manager's pattern of communication I focus on are *who* he communicates with, *what* the direct objective of the communication is, *when* in the process the communication takes place, and *how* the communication is conducted.

The *consequences* of the patterns of communication are viewed in terms of stakeholders' perceptions of the quality of the principles, their understanding of them, their acceptance of the system, and their perception of the quality of the project process.

Below I give a somewhat more detailed definition of my usage of the aspects *who, what, when, how,* and *consequences* of the project managers' patterns of communication.

1.2.1.1 Who

Above I said "No one person will know and understand all aspects of how the organisation functions and how the people in the organisation think and react. It is then a challenge for the project manager to use as much as possible of the entire intelligence of the organisation when designing and implementing principles of management accounting and control." For the project manager, using the intelligence of the system rather than relying solely on himself, entails complementing his initial understanding with that of others. "Who?" asks the question "what others?"

Depending on whose perspective principles of management accounting build on, the principles can be expected to differ: a production manager, a corporate controller, a sales representative and a general manager cannot be expected to hold the same views on what the important aspects of the business are and how they should be captured in a management accounting and control system. An interesting aspect is therefore who the project manager communicates with (or does not communicate with).

I view "who" in relation to points of reference; people in roles relating to the organisation or function, in relation to the project, or in relation to the end product of a planned development and implementation; a management accounting and control system.

Roles relating to the organisation or function are for example: general manager, foreman, accountant, and product manager. Roles relating to the project are for example: actors (who perform the project), owners (who can stop the project) and customers (those who are affected by the project). Roles relating to the management accounting and control system are for example: those who operate it, those who are described by it, and those who use information from it.

The detailing of 'who' in terms of roles is developed in the section 'Who is important?', starting on page 45.

1.2.1.2 What

What is the content of the communication? Is the project manager focusing on input or output? If it is input, is the project manager just investigating the object system, looking for 'facts' to design a systemically desirable solution, or is he also interested in similarities and differences in views and opinions in the subject system to create a culturally feasible solution? Is he interested in how different people think, how they form their views and opinions? Does he take their statements at face value or does he try to understand the perspective that helped shape their statements? I discuss the input aspect of communication in terms of search for others' descriptions of the business operations, of their opinions on management accounting and control, and of their view of consequences of applying a specific set of principles of management accounting and control.

If the focus is on output, is the project manager trying to get others to understand the principles he designs, does he try to influence their evaluation of these principles, or does he try to influence their perception of the process and the way they form their views and opinions?

The concepts I use to discuss the 'what' aspect of the project manager's pattern of communication are treated in more detail in sections 3.2.2 and 3.4.

1.2.1.3 When

When in the process does the communication take place? *When* could be related to many different points of reference. Four alternatives are: in relation to the calendar, to the project, to the information systems develop-

ment process, and to the management accounting systems life cycle. Each of these could serve to analyse differences and similarities between the projects I study. However, the consequences of the patterns of communication that I find interesting seem to relate more to phases in the management accounting systems life cycle than to either calendar time or generic project phases. I therefore develop and use an adapted life cycle phase model as my main focus. In section 3.1.1 (page 34 below), the phase or stage concepts including the relationships between them are discussed further.

1.2.1.4 How

I discuss 'How' in terms of the balance between seeking information and sending information in the project manager's pattern of communication, the directness of contact with stakeholders, and types of participation with different degrees of influence. Does the project manager seek or allow the participation of others in the project? To what extent? A potential counterpart for example may not participate in the communication at all, be interviewed by the project manager, or be enlisted as an actor, sharing the work with the project manager. Thus I discuss participation in terms such as: not at all, interviewed, or acting.

Does the project manager allow others to influence the project? To what extent? Others for example may be allowed no influence, be consulted by the project manager, but not given the right to decide on issues in the project, or be those who make decisions. I discuss the degree of influence in terms such as: no influence, advice, and decision.

A more detailed discussion of balance between input and output, of directness of contact, and of participation and influence is to be found in sections 3.2.3 and 3.2.4 below.

1.2.2 Consequences of the pattern of communication on the effects of the project

When I talk of consequences of the pattern of communication on the effects of the project, I mean what I consider to be plausible connections between the patterns of communication and how the principles, the system of management accounting and control, and the process of developing and implementing it are viewed by stakeholders. There is a degree of hypothesising in this. I believe it is difficult to positively ascertain causality in the

behaviour and thought of human beings. It may not even exist, but we live in a culture where causality as a concept is highly treasured.[1] We make sense of the world in which we live through systems of reasoning that may be internally consistent but that cannot be proven to be true. In line with this, I will strive to *make plausible* the connections between patterns of communication and what I term effects. I base these connections on my analysis of accounts of actions, events and views in a number of processes of development and implementation of principles of management accounting and control. Strictly speaking, I cannot prove that the causal relationships that justify the use of the word 'consequence' exist, but by identifying regularities and differences in sequences of actions, events and views, I can arrive at statements of consequences that have the status of grounded hypotheses.

I look for effects in how the principles, the system of management accounting and control, and the process of developing and implementing it are viewed by stakeholders. Examples of effects may be views on the quality of the management accounting and control principles and system, such as:

> *Descriptive accuracy* – if the management accounting and control system is perceived to describe the business operations accurately or inaccurately

> *Usability* – if the management accounting and control system requires an unnecessarily large effort to be understood and used properly, or if it is judged to be a convenient tool, filling needs experienced

> *Communicability* – if the principles are understood by the users so they can interpret the output they receive, or if they understand the principles poorly and therefore misinterpret the output

> *Acceptance* – if the management accounting and control principles and systems are not accepted and thus not used, or if they are accepted.

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[1] Note for example the value of the word "because" in convincing others of the legitimacy of a request. A researcher asked to bypass a line, phrasing her request in different ways, and managed to show that the word "because", regardless of the motive that followed, increased her success. (Langer, Blank, & Chanowitz, 1978, recounted in Robert Cialdini, *Influence : science and practice*, HarperCollins, 1993, 3rd ed. p. 3 ff.

Effects may also relate specifically to the process:

> *Psychosocial results* – stakeholders views of appropriateness of the process.

In section 3.3 below, I discuss in more detail consequences of the pattern of communication on the effects of the project.

1.2.3 Active perspectives management

Opting for active perspectives management is a choice that has to do with the delimitation of the system: does the project manager view the handling of perspectives as something that should be done by him or does he leave the problem to someone else? The project manager could have a leaning towards 'hard' or 'soft' systems views; 'hard' meaning concentrating on management accounting as a technical system, and 'soft' viewing management accounting as a complex that has a social side (people with feelings, goals and ideas who interact with each other and with the technical system). The 'soft' systems view is then consonant with active perspectives management, while someone taking a 'hard' systems approach is less likely to place much attention on understanding and handling perspectives. I intend to discuss the balance between 'hard' and 'soft' systems views in the project manager's pattern of communication. In the context of developing principles of management accounting and control, this could be phrased as: Is he viewing the design of principles as an isolated, technical task, or is he thinking of it in terms of how these principles will be implemented, understood, accepted, and used?

In the introduction I talk of "Deserve explicit recognition", and "Should be based on this recognition". Which level of ambition does he choose regarding different groups and individuals: descriptions, views, or understanding their perspective? How conscious of the perspectives aspects of his choices and actions does the project manager seem to have been, and when did that consciousness arise? Has he chosen whether to consider how other people react and will react, or has he not? Has the project manager considered differences in perspectives and their consequences from the start or has he noticed later on that he may need to handle them?

1.2.4 Project type

I limit my study to projects aiming at changing the principles of management accounting and control in businesses. I term these projects 'management accounting and control projects'[2] or sometimes, for short, 'accounting projects'. By 'principles' I mean the detailed logic of management accounting and control in the specific case, not the under-lying accounting idea or concept (such as 'activity-based costing' or 'matrix accounting'). Given that a project aims to implement, for example, activity-based costing (an accounting concept), the principles of the actual implementation (in the sense that I use the word 'principles') are not determined. Rather than being the result of a deterministic application of a logical blueprint given the accounting concept, they will be the result of a large number of decisions or choices based on the specifics of the business activities of the particular organisation, the interpretation the actors make of the accounting concept, practical considerations regarding the possibility of obtaining input data, etc. The project manager is responsible for the process of making these decisions or choices, although he may not be the only one participating in this process.

These projects may entail a change or development of computer programs, but I do not study projects that have the primary focus of finding, developing, or implementing software *ceteris paribus*. I view the redesign of principles of management accounting and control as a more profound change than that of a change of software.[3] The principles are intended as a means to affect the behaviour of people. The software may primarily affect the technical possibilities and convenience of applying a set of principles in the computer-based accounting information system.

The change of principles affects a larger portion of the people in the organisation in more important ways, and thus probably makes the question of perspectives management more complex and important. A change of software *ceteris paribus* has little impact on those described by the accounting or on those who use output from the program without

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[2] In Swedish the terms "verksamhetsstyrning" or "ekonomistyrning" are used to denote principles of management, accounting and control, and their implementation, and these are the terms I have used when identifying cases to study.

[3] Support for this argument is found for example in Lynne Markus and Jeffrey Pfeffer, Power and the design and implementation of accounting and control systems, *Accounting, Organizations, and Society*, 8:2/3 pp. 205–218, 1983.

actually operating it. A change of principles, however, will affect how the work of those described is described, and thereby possibly how it is evaluated. It will also change what the information users can receive, possibly in terms of what is described as well as how the description can be interpreted.

Much of the literature on project management deals with product development or large scale construction projects. Compared with these my area of focus is on a meta level – I study projects that consider how to manage, control, or obtain information on the business activities. In this respect I differ from mainstream project management research, but in another way I remain close to it. I do not study the products arrived at in the projects – in my case the systems of management and control or the accounting and budgeting information systems. This is in line with other project management research, which also focuses on how to manage projects rather than what the projects are intended to produce.

Management accounting and control projects differ from product development or construction projects in a number of ways. They are rather small in terms of money, number of people, and number of organisations involved. The visible costs of designing and implementing new principles of accounting and control, or even of replacing the computerised information systems for accounting and control, typically constitute a minute fraction of the company's turnover. Neither does it entail large scale construction and production efforts. It does not require the co-ordination of a large network of sub-contractors, but is probably an in-house project – possibly with some involvement of an external consultant or information systems supplier. This makes within-project co-ordination and project cost control far less complex and important than for example in large capital projects. In large capital projects, the sheer size of costs and of the number of people employed make such within-project considerations an important task. In contrast, the project manager in accounting and control projects has as a main task to understand an environment that to a large extent is to be found outside the project organisation. He is managing a project that is relatively low cost, employs few people, and has as its ultimate goal to affect the behaviour of a large proportion of the people in the organisation.

1.2.5 Projects and their managers

My criteria for viewing an endeavour as a project are a) that someone can be identified as managing it (with or without the title 'project manager') and b) that he and others regard it as an activity separate from the everyday business activities, an activity with a finite life and a more or less well defined purpose, and that they think of it as a project. I thus pose no structural requirements on projects in terms of project organisation. One reason for this is that the way a project is organised may be part of the way of handling perspectives. Another reason is that, when looking at practice, I am interested in the type of activity aiming at changing the principles of management, accounting or control, rather than a strictly defined organisational form for conducting such a change. My project and project manager definitions are thus based on content rather than form.

1.3 The structure of the book

In chapter one I have presented my research question. The patterns of communication will be studied focusing on the aspects of who, what, when, and how, and the consequences of the pattern of communication. These aspects will be further developed in the theory section, chapter three, and applied in the analysis and discussion in chapter six.

Chapter two, Research method, is an account of choices I have made in this research, and consequences of these choices. It also contains a discussion of research method that builds on writings of other researchers, primarily in the field of management accounting and control and employing case studies.

In chapter three, Theoretical framework, I present and discuss my frame of reference. It builds on discussions, normative views, and empirical surveys from the fields of information management (specifically systems theory, information systems development, and change process literature), management accounting and control, and project management. Through the discussion of literature representing my frame of reference, I develop a framework on which to base my analysis and discussion, identifying concepts that specify the aspects of who, what, when, and how, and aspects basic to the success of principles of management accounting and control.

In chapter four, related published case studies, I summarise a number of published case studies that I then return to in chapter 6 to compare with my own observations. The first section of the chapter contains a number of non-Swedish cases (primarily British and American). The second section contains a number of interrelated Swedish management accounting and control project cases.

Chapter five, Case studies, contains my own case studies. They are basically chronological accounts of management accounting and control projects in three Swedish manufacturing companies.

Chapter six is my analysis and discussion of my observations, using the framework developed in chapter three. It consists of four sections. The first two sections start with topic-related analysis and discussion of each of my own cases. Then follows a cross-case analysis and comparisons with the cases in chapter four. The third section of chapter six contains an analysis and discussion of a problem occurring in the communication in a number of the cases. In the fourth section I analyse the process description I derived in chapter three and refine it in the light of the preceding analysis.

In the last chapter, chapter seven, I focus on four general patterns of communication, and their consequences. I conclude the chapter with my views of implications of my findings for how the management of projects can be improved.

2   Research method

In this chapter I first present my view of research. I then discuss choices in my research (sections 2.2 to 2.4). In the concluding section of the chapter (section 2.5) I base a discussion of the research I have conducted, and the presentation of it, on the literature on methodology in field studies in management accounting and control.

2.1 My view of research

I have tried to understand the management accounting and control change process. My path in the process of gaining understanding could be described as a spiral movement in time where the relative importance of input and reflection constantly changes. The total amount of attention also changes over time, although the topic never completely leaves the mind. The input has consisted of others' written obser-

Figure 2.1 The process of gaining understanding

vations and explanations, of my own empirical observations, and of talks and discussions with practitioners and researchers. My reflection has taken the form of writing, of more and less systematic analysis, and, oftentimes of a wrestling with the subject where insights suddenly appear from connections that were made through processes other than logical reasoning. I do not believe the process of understanding can ever be completed. Raising the searchlight constantly increases the awareness of potentially valuable additional trains of thought, of additional published observations and of possible new settings for and aspects of empirical experience.

Thus my task as I see it is to describe what I have done and to account for important choices along my path of inquiry. My ambition is to make it

plausible to the reader that my choices along the way have contributed to informing me on my research topic, rather than to try to prove that I have made the best choices. My experience is that 'best' in this context can only (if at all) be judged in hindsight and that this hindsight also changes along with the feeling of increased understanding.

2.2 Choices of direction – forming the choice and consequences of the choice

2.2.1 Deciding on the purpose

Inspiration to perform the research reported in this book came from the empirically based insight that understanding people affected by change can be an important part in conducting change processes successfully.

2.2.1.1 Focusing on perspectives management

The two cases in my licentiate thesis[4] provided the following impulses:

Pripps: I was conducting a project where differences between the perspectives of stakeholders surfaced towards the end of the project. A direct result of that project was a computer program, designed to serve as a decision aid, that was not used. A lesson learned is that it is important to understand the stakeholders (especially the user), and not just the task, in order to create solutions that are used.

Astra: Asking stakeholders for their views on useful product costing information showed a large spectrum. The diversity of opinions surprised the accounting manager as well as the unit manager. The accounting manager also noted that I knew more about the actual operations in the unit after interviewing people for a month then he did after having worked there for decades. Implications for a study of management accounting and control: the accountant's knowledge of the views of potential users of accounting information may be limited. He may see traditional accounting

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[4] Alf Westelius and Ann-Sofie Westelius, *Decentraliserade informationssystem - två fallstudier inom ekonomistyrning*, EFI, 1990 (in Swedish. The title translates as Decentralised information systems: two case studies in management accounting and control)

uses as the obvious norm for how to construct accounting principles, thus limiting the potential usefulness of the accounting without intending to do so. Talking with stakeholders may quickly lead to a considerably more informed picture. It is not, however, necessarily obvious to the accountant just who may be a potential user of the accounting information. (The accounting manager started out with a view of potential users that was considerably more narrow than mine.)

My experiences from serving as change process coach in academic programs provided further observations and ideas:

Coaching change:[5] There is a great difference in how the program participants perceive the changes they are planning when thinking on their own and when actually identifying stakeholders and talking with them. Hearing how others viewed situations or business processes provided the program participants with many surprises. "No one has a grasp of this entire process.", "That group is not uniform at all", "What I saw as a benefit, he viewed as a drawback"... This added to my perception of the value to a person conducting change processes of identifying and talking with stakeholders.

Other scholars have also provided input:

Mats Lundeberg proposed that the *individual* is important and that differences in perspective between individuals are important to understand in order to design durable solutions.[6] He also pointed out the duality of processes: they always have a person as well as a task dimension. **Börje Langefors'** infological equation,[7] focusing on the subjective nature of information, provided a stringent abstraction of some of the aspects that I had encountered as important. **Peter Checkland**'s Soft Systems Methodology[8] proposed that attention to role is important to understanding how change could be performed successfully – how to achieve results of some permanence rather than results that end with the project. His distinction between systemically desirable and socially feasible also highlighted the

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[5] The change process coaching approach used I have described in an article: Alf Westelius, Coaching change processes: a systems approach, *Proceedings from the International Academy for Information Management*, 1993

[6] Mats Lundeberg, *Handling Change Processes; A Systems Approach*, Studentlitteratur/Chartwell-Bratt, 1993

[7] See for example Börje Langefors, *Essays on Infology*, University of Gothenburg, 1993, p. 150

[8] See for example Peter Checkland and Jim Scholes, *Soft Systems Methodology in action*, John Wiley & Sons, 1990, p. 45 ff.

problem I encountered in Pripps – the difference between understanding a task and understanding the people who perform it or are affected by it.

2.2.1.2 Choosing a management accounting and control setting

The decision to specifically study management accounting and control projects had a number of reasons. One is the general interest I hold in management accounting and control. One is consistency with previous research decisions: in my licentiate thesis one of the case studies was a preliminary investigation for a management accounting and control project. Yet another reason is that I attempted for several years, as working chairman of a small organisation, to change the way the board and the manager addressed issues, through a change of management accounting and control and through a dialogue based on management accounting. A fourth reason is that for a number of years there has been a research dialogue at the Stockholm School of Economics between the Department of Information Management, where I work, and the Accounting and Managerial Finance Section of the school. This dialogue afforded me with a local tradition to build on.

2.2.1.3 Focusing on the project manager

I wanted to study actors who conduct change processes. My *a priori* belief before selecting projects to study was that the project manager would be a central person in how projects are conducted. The principal commissioning the project could have been an alternative person to focus on, but I specifically wanted an actor, not only someone who may influence the project without taking an active part. An alternative, looking at how actors in projects behave, would have been to study entire project groups. As it turned out, my focus on the project manager rather than the project group seems to be of little consequence, as the project groups in the cases I have studied are small, often consisting of the project manager as the only permanent member.

2.2.2 Deciding on method of inquiry and on research objects

To me, exploring, defining, and addressing my research question meant an intellectual adventure in an area where neither the delimitation of the area

nor the structure within it was very clear at the outset. I have a personal preference for building my understanding in a dialogue with practitioners as well as academics.

I wanted to cover a substantial part of the process of developing new principles of management accounting and control, and wanted to study more than one instance of such a process. I believe in basing research on rich data, and thus preferred studying a few processes more in depth rather than a larger number more superficially. I therefore started out with the intention to do some type of field study, rather than a broad survey.

2.2.2.1 Interviews as primary method of data collection

In my field studies I have relied on interviews and some study of documents rather than on questionnaires, participant observation, or action research. In this section I account for this choice.

I had previous experience of interviews (for example in Astra) where they quickly afforded me with a way to gain a rather deep understanding of the operations and the views of the interviewees.

I enjoy conducting interviews, feeling that they provide me with a rich picture: giving me an impression of the personality of the person with whom I am speaking, a sense of their interest in the topic I am researching, an impression of their involvement in answering questions, and a real-time view of their responses – when they are hesitant and when they are certain at once.

Questionnaires require a good *a priori* understanding of the area, and are liable to be misunderstood by the person answering them without the researcher detecting this. In a semi-structured interview the researcher has a better chance to detect when the interviewee misinterprets questions. Interviews also allow a chance to explore the unexpected, that is limited in questionnaires. Superficial material collected through questionnaires or structured interviews may serve a purpose for the exploration of a well defined and narrow question, but my question was neither narrow nor well defined. I was exploring, and I would not have felt comfortable that the answers I could obtain through mainly one-way communication would be of a quality that I could build on.

Questionnaires are cheap to administer, and rate of response need not be a large problem. Colleagues receive a 70% rate of response or above, but not always distinctly from the targeted persons. (Rate of response certainly is no major problem in interviews. I simply note here that no

person I have asked has declined to be interviewed, only negotiated the date for the interview.) An alternative at the other end of the scale of intensity of observation is participant observation. Participant observation takes time, but gives much detail. To allow the coverage of an entire process, it would require that the timing of the process coincides with the period when the researcher intends to collect his material (same time, same place; the lower left hand corner of Figure 2.2). I wanted to make good use of the time I spent on gathering data. Given my previous experience with interviewing I felt that the richness of data it would provide me with was sufficient for my purpose, and that the increased level of detail from participating would not balance the problem of managing to be 'at the scene' of important events. Interviewing would provide the freedom of inquiring into events that had already taken place (or that would come to take place). On the other hand, it would impose a filter between me and the events, a filter consisting of the interpretation process of the person being interviewed. This I have tried to address by not relying on just a single interviewee to capture a process.
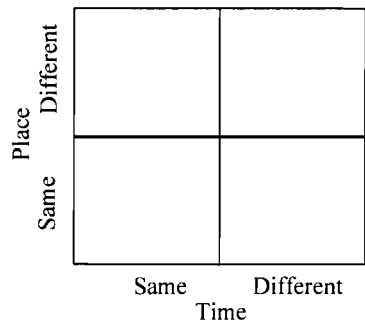
Figure 2.2 Time and place of event and inquiry

I wanted to see how project managers behaved in terms of perspectives management without influencing their behaviour. (In my process coaching of project managers, influencing them in terms of perspectives management had been an important objective, but here I wanted to restrict my influence, if any. An observation from process coaching was that the influence of the coach varies considerably between the individuals being coached.) Post fact interviews do not alter the process being studied, but there is always a chance that the respondent's perception of past events is coloured by the questions the researcher poses. A participant observer is likely to influence the process being studied, to some degree, simply by being an external part intruding.

2.2.2.2 Choice of companies and projects

I wanted to avoid selecting projects where there would be *a priori* reason to suspect that the project managers were incompetent. My idea was that successful companies could be expected to be well managed and that projects in such companies would be managed by fairly competent people. Based on this line of reasoning, I wanted to study projects in companies that were generally considered as successful rather than unsuccessful. A consequence of this choice is that the projects I have studied have been performed in environments where low profitability has not been a pressing problem. When profitability is low, management accounting and control may become a prioritised area in efforts to cut costs, to focus on the products that bring the highest margins, etc. In the companies I studied, however, no struggle for survival helped direct general interest at management accounting and control. Thus the project managers I have studied may have had more difficulty in initiating a dialogue concerning management accounting and control (or finding a dialogue to participate in) than if they had worked in less successful companies.

My case studies are performed in manufacturing industry. I see no strong reason to believe that project managers' attention to the perspectives of others would vary systematically according to industry, but there is reason to believe that the choice has helped me collect and understand my data. The case studies in my licentiate thesis were from manufacturing companies, and I saw no strong reason to introduce variance of industry, by, for example, choosing companies from banking, retailing, and manufacturing. I believed that my familiarity with manufacturing industry could help me understand and communicate with the people I chose to interview. By showing an interest in their business setting and some familiarity with their concepts and problems, I hoped to increase their willingness to talk with me and my chance of following their answers. I have tried to prepare myself by reading about the organisations before conducting interviews. Learning about a company takes time. Some of the peculiarities of an organisation (including jargon) may be shared with other organisations in the same industry, but not across industries. Thus keeping to an industry could help me learn more about the organisations I studied than would have been possible with a sample from several industries.

When choosing companies to study I started out with a list of companies in manufacturing industries reasonably near Stockholm. From the list I

identified a dozen companies that are generally regarded as well run, that I felt I would want to study, and that, preferably, had some connection to the Stockholm School of Economics, or where I had other ways of facilitating access. I then contacted the director of Finance and Accounting or chief controller to identify projects that could be candidates for study. In the cases when they could identify recent or ongoing projects that they believed matched my criteria, they gave me the name of the project manager or of a local manager of finance and accounting who could provide me with the name. I would then call that person to try to ascertain that the project was indeed what I was looking for.

Initially I was looking for projects in progress. I thought I would have more direct access to the project manager's thoughts if I interviewed him during the process rather than afterwards. It would also be more likely to find the project manager as well as other stakeholders still in the organisation if I studied the process while it was taking place. Identifying ongoing projects that aimed at modifying the principles of management accounting and control proved to be rather difficult. A telephone survey of a dozen companies or industrial groups that interested me, indicated that ongoing projects were not numerous. I then decided to investigate recent projects too (projects that had ended in the past few years). I believed that an interesting point to enter would be where the design phase was completed, or nearly completed, but where implementation had not necessarily started. An initial investigation of a number of projects showed that the project manager had vivid recollections of the project process, but that reactions from stakeholders were quite different before and after implementation. The group knowing about the project and the resulting principles of management accounting and control (or suggestions for modification of such principles) was also quite limited in the cases where the projects had not directly led to implementation.

In this light I found it more interesting to focus on projects where implementation aspects were present, even if that would mean studying older cases. I thus dropped a number of projects that had the nature of pilot studies, and added a project that had reached the implementation phase a few years ago, but where the project manager was still accessible.

Given the trade-off between gaining access to the reactions of stakeholders, and the loss of detail in recollections of the development process, I judged that I could assemble a sufficiently interesting picture of the process even in the cases that were a bit older, and that the access to reac-

tions of stakeholders at or beyond implementation was of vital interest to my research.

The cases chosen are thus rather similar in a number of ways. For example: they are all from successful Swedish companies in the manufacturing industry; they are all performed within a few years of each other; they all include implementation aspects. There are also differences between them. For example, they are not led by the same project manager. I wanted to explore these cases in some depth to analyse each of them, but I also wanted to be able to make comparisons across cases.

To supplement my own cases and provide a larger basis for my analysis I searched literature for published case studies and have included cases where the description of the process allows comparison with my own cases.[9] Regarding those cases there is an extra filter between me and the processes described: the researchers who have described the processes. This may lead to a distorted view of the process. It also means that I can only build on what is written. I cannot ascertain whether an event not described, but that I would have expected to occur, did not take place or was simply ignored or not reported by the researcher. However, despite these drawbacks I find the published cases valuable. They provide a sample that spans a large time period, that includes non-Swedish companies, failures as well as successes, etc. Together they display a larger spectrum of patterns of communication than that displayed in my own cases. They thus allow me some opportunity to check whether or not the patterns of communication and consequences I find are peculiar to my own cases, and indeed if my perception of consequences seem plausible. When I interpret an event or view as a consequence of some preceding action in a sequence of actions, events and views, that interpretation becomes more plausible if I can detect a similar pattern in another sequence. The interpretation (or hypothesised causal relationship) becomes less plausible if similar actions in other sequences are followed by dissimilar events or views.

I cannot claim that my own cases and the published cases together form a sample representative of the universe of management accounting and control projects. My analysis is based on observations from the cases described in chapter 4 and chapter 5, and the reader should bear this in

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[9] In case descriptions prepared by others I obviously have no influence over the aspects described, and a large proportion of the cases dealing with management accounting and control projects that I found, did not describe aspects of the process relevant to my study.

mind when making inferences from my findings to other situations. I do, however, believe in the possibility of making such inferences, and that the patterns of communication and the consequences I identify may serve as ideas for what may be found (or may develop) in other similar situations.

2.3 Interview procedure used

I have primarily collected my empirical material by semi-structured interviews. I wanted the interviewees to feel at ease while talking to them. They have chosen the place for the interview and I have taken notes during the interview instead of using a recorder, in order not to make them feel that they have to watch what they say and how they phrase things. Not using a recorder would always give them the opportunity of retracting statements, claiming that I have misrepresented what they actually said. I do not feel that this decreases the value the interviews have for me. Based on my notes I have produced extensive documentation of the interviews as quickly as possible after each interview (sometimes on the very same day). This documentation I have sent to the interviewees for comments. The corrections they have provided have typically been on a detail level, and a recurring comment has been that they have regarded the documentation as a faithful rendering of what has been said.

In connection with the documentation I have posed questions on points that have appeared unclear to me when trying to capture the processes. This has sometimes been because I have realised that I did not quite understand a point during the interview, but often the reason has been that I have found areas that I wanted to explore further. These questions have sometimes been answered in writing, but often they have been subject to shorter or longer discussions between the interviewee and me on a second occasion.

My choice of interviewees in each specific case has been based on the previous interviews in that case. I have started with the project manager, and from his account identified other stakeholders that I have wanted to interview. I have asked these other stakeholders who else they thought would be important for me to talk to. My selection of interviewees has also been influenced by the model of roles in relation to the management accounting and control system that I develop in section 3.2.1 below. I have continued interviewing in each case until I have felt that I have

developed an understanding of the process that reflects a plurality of views.[10]

Prior to interviewing in the projects, I created a picture of a generic management accounting project process. The process is depicted as a series of linked sub-processes (linked Xs, Figure 2.3), going from left to right, and the outcomes of one sub-process serve as a starting point for the next one. (The chain in the upper half of the figure continues in the lower half. The empty boxes to the left of the Design sub-process are thus identical with the last boxes of the upper half, containing the outcomes of the investigation sub-process.) The upper half of the Xs focus on person-related questions, while the bottom half is more focused on the task-level. (The X-model is explained in more detail on p. 40 ff.)

Initiation	**Project formation**	**Investigation**

Who initiates? Personal backgrounds.	Who takes or is given project responsibility? What role does the initiator play?	Composition of the project group: background, skill, commitment.	Who does what? Who is asked? What skills are sought?
Organisational history. Push/pull? What is wrong/ would be wanted?	What is the project intended to accomplish?	Purpose? Goal? Mandate? Time plan? What is known about the present situation?	What is asked? What is sought? What is received? What is critical?

Design	**Anchoring**	**Implementation**

	Who designs what (initiator, project manager, others)? Participation?	Whose OK or com- mitment is important? Who enters the the process now?	Whose opinions become known now? How is the "system" received?
	What is changed com- pared with the initial state? Compared with the initial idea?	What is anchored and how?	Is the "system" working as intended? Surprises?

Figure 2.3 Project phases as Xs

My intention with the picture was to place questions in this stage and level framework to see if there were stages that I was about to neglect and if I

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[10] The interviews are listed in the appendix on p. 312.

had a balance between the task and the person level. I have not strictly used the picture as an interview guide during the interviews, but I have brought it and kept it as a checklist to use when I felt a need for it.

My notion was to study projects that were in progress; where implementation had not yet finished, but preferably started. What I have noted since is that my notion of a project was a mixture of project and information systems development phases with an implicit product life cycle as a base. (See section 3.1.1.4 p. 37 ff.) The model above has helped me gather useful data on the projects studied, even if, as a consequence of further study of literature, and of analysis of my observations, I have come to revise my view of what constitutes a useful phase model more than once (see also section 6.4.1).

2.4 A dialectic research process; iterations between study of literature, data collection and analysis

In the licentiate thesis I started out with surprises I encountered when trying to implement decision support (the first case in that thesis). Theory from information management and management accounting cases helped me interpret and understand more of what I had encountered. One of the significant obstacles had been the large, but unarticulated differences in perspective between actors. The second case in that thesis was a sort of test of the notion that trying to understand the different stakeholders was an important part in developing information systems support that would come to be appreciated. The large variety in views towards costing that the different stakeholders held surprised the accountant responsible and the manager of the production unit.

The next step in my research was to begin to form a framework for exploring how project managers behaved in management accounting and control projects: whose perspective did they seek and when, and how did they handle them and what were the consequences? The framework was to a large extent based on normative change management literature from the field of information management.

My empirical observations in a number of cases provided me with some surprises that influenced my subsequent empirical enquiry. My initial

focus on the project managers' input was revised to include an equal attention to the output aspects of their communication patterns. The result of an analysis aimed at detecting patterns in my empirical material prompted me to renew my attempts to find relevant literature, this time mainly of an empirical nature. After a review of empirical literature connected with management accounting and control projects I again set myself the task of analysing my empirical material: this time comparing my own observations with those provided by other researchers in books and articles. 'Understanding' was beginning to emerge as an important concept, and gradually my present view on 'consequences' took shape.

Thus my research efforts have not been characterised by a straight road from topic, to purpose, and via literature to a frame of reference that has been compared with empirical observations. Rather it has been a winding path where I have gradually developed an understanding of the area studied, and through a series of adjustments of focus in my empirical investigations as well as in my search for relevant literature arrived at the present framework, case descriptions and analysis. This path has much in common with the approach described by Strauss and Corbin,[11] although for me this path has been a matter of development rather than design.

2.5 Comparisons between my research, and writings on methodology in management accounting and control case research

Ferreira and Merchant[12] review field study research in management accounting and control. They identified 82 studies from 1984 to 1991, published in eleven research journals, two accounting research monograph series and the Harvard Business School accounting research colloquia publications. Their definition of field study research was:

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[11] Anselm Strauss and Juliet Corbin, *Basics of qualitative research: grounded theory procedures and techniques*, Sage publications 1990

[12] Lourdes D Ferreira & Kenneth A Merchant, Field research in management accounting and control: a review and evaluation, *Accounting, Auditing and Accountability Journal*, 1992 Vol. 5:4 pp. 3–34

1. "The researcher has direct, in-depth contact with organizational participants, particularly in interviews and direct observations of activities, and these contacts provide a primary source of research data.
2. The study focuses on real tasks or processes, not situations artificially created by the researcher.
3. The research design is not totally structured. It evolves along with the field observations.
4. The presentation of data includes relatively rich (detailed) descriptions of company contexts and practices.
5. The resulting publications are written to the academic community. (Some of the field research literature is also easily read and used by practitioners.)"[13]

The Pripps and Astra cases in my licentiate thesis were examples of clinical research,[14] but in the present study there is no primary aim to solve problems in the organisations studied. My study of management accounting and control projects conforms to all five points above, and would thus be a field study.

They make a number of observations concerning these studies. I noted the following:

"In fact, most field researchers have multiple purposes. Most commonly they intend to describe their observations and to reflect on their observations' theoretical significance." (pp. 12-13)

So do I, but I also want to reflect on practical significance.

Empirical 'surprise' and subsequent reorientation of research question and analysis is not unusual. (p. 13)

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[13] Ibid. p. 4

[14] 'Clinical research' is research based on observations made by the researcher in organisations when the primary concern of the researcher, while in the organisation, is to help members of that organisation with identifying and solving problems in the organisation. (Edgar H Schein, *Legitimating clinical research in the study of organisational culture*, May 1991, WP# 3288-91-BPS, MIT Sloan School of Management)

My general research question has remained rather unchanged, but 'surprises' that have influenced the direction of my enquiry and analysis include the following:

- the observation by project managers that they 'sent' too little – I started out with a framework focusing on the input side, but soon started to look more for the output side too
- that user reactions were scarce up to implementation – I started out looking for projects that were not necessarily implemented, but adjusted my sample to include another project that had reached some kind of implementation stage to catch this aspect, and dropped a number of projects that had not reached, or were not about to reach, the implementation stage.

Sample selection: Field researchers often look for companies that would appear to be 'outliers' in a large database study, and hope to learn something new from them. (p. 14)

I did not look for extreme 'outliers'. I was more interested in the main line than in the extremes. Given this general focus, however, I tried to choose companies that could be expected to be competent, since I did not want to be able to attribute a possible lack of attention to others' perspectives to the circumstance that I was studying poorly managed companies.

It was unusual that authors reported the number of individuals interviewed and duration of interviews. (p. 15)

I do not have a limitation on the number of words allowed that would lead me to omit such information (a potential explanation of their observations given by Ferreira and Merchant), but it is interesting to note that in the publications reviewed by Ferreira and Merchant it was normal for authors to choose not to report this information. In an appendix (p. 312) I list my interviews, case by case.

The studies are normally cross-sectional. Just a few are longitudinal (10 months to 3,5 years). (p. 16) Some try to trace history (up to 22 years).

In my licentiate thesis, Pripps was longitudinal, Astra more of a snap shot. In the present management accounting and control project studies I try to trace history, but some of my studies have come to take on a flavour of longitudinality. The interviews stretch over a period of between six and ten months per case.

Many papers focus primarily (sometimes almost exclusively) on the findings, instead of the traditional introduction, literature review, research questions, research method, findings, discussion. (p. 16)

I have thought quite a bit about this, but have come to the standpoint that I will conform to a rather traditional outline. A reader would expect to meet a traditional outline, and I have found it convenient for structuring my thoughts during my work.

"Few studies examined also devoted any attention to the discussion of other competing theories that could explain the observed phenomenon." (p. 17)

I have not started out with *a* theory, but have had a rather strong dialectic process between input from literature, input from my empirical observations, analysing my material and trying to make sense of it. I present a frame of reference that I view as an aid in making sense of my observations. On some topics I discuss in terms of different competing explanations, but mostly the different strands complement each other rather than compete.

Many field studies fail to consider human factors and reactions to the accounting systems and to changes in the systems. (p. 20)

This is a point that I specifically seek to address: the reason why I undertook my study was that I found that project managers I came in contact with failed to consider human factors and reactions to a notable extent in the projects they were managing. This partial inattention to such aspects led to problems with reaching the intended effects of the projects.

Ferreira and Merchant evaluate the studies they found along four key criteria for evaluating field research proposed by Bruns and Kaplan (1987).[15] The criteria are:

1. Choice of subject matter
2. Research design
   - Site selection
   - Data collection
   - Triangulation
   - Effective interviewing
3. Data presentation and interpretation
   - Face credibility of the data
   - Making sense of the data
   - Have data been related to theory?
4. Practical implications.[16]

The result of the evaluation Ferreira and Merchant made is the following:

Choice of subject matter: The studies typically address relevant topics.

Research design: The research design is often poorly described. Some researchers just seek confirmation and are not open to disconfirming evidence. Some are too open-minded and lack focus. Many field studies fail to consider human factors and reactions to the accounting systems and to changes in the systems. (p. 20)

Data presentation and interpretation: Data presentation and interpretation is "perhaps the weakest element of the field research published". (p. 21) Failure to adequately tie into existing literature, excessive focus on conclusions, data and data gathering effort not described, unstandardised outlines and strange jargon make papers difficult to read and understand (especially for researchers in accounting).

Practical implications: Some immediate success can be noted. In a number of areas field research has advanced the state of knowledge, but the long-term perspective cannot be judged yet.

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[15] William Bruns and Robert Kaplan, Field studies in management accounting, in *Accounting & Management: field study perspectives*, William Bruns and Robert Kaplan (eds), Harvard Business School Press, 1987, pp. 1–14. Bruns and Kaplan note that few if any studies in the book meet these criteria.

[16] Ibid. pp. 3–5

In an article from 1994 Otley and Berry[17] evaluate four case studies along the dimensions type of case study, methodology and epistemology in use, methods used, substantive issues observed, and the theory of management and control. They draw the conclusion that case based research in management accounting and control is problematic in the five areas explored. One example is that all four studies were what Otley and Barry described as accidental studies; even when the researchers had an elaborate design, failure to gain access for the original design at some stage of the field work turned the research onto paths that the researchers had not planned.

Thus the field study seems to be a difficult type of research. I will try to avoid the more obvious weaknesses expressed above, but my conviction that the field study is an approach suited to address complex questions in their natural setting has led me to choose this approach over a more structured one. Authors using this approach often state that they choose it because it affords them a depth and richness of observations that allow them to understand the phenomenon they are studying in its proper context. As shown by the deficiencies listed above, the step between the researcher's understanding and convincingly transmitted observations, discussions, and conclusions is not a short one.

On the relationship between observations and theory Scapens and Roberts[18] write "Theories are used to make sense of observations and observations are used to develop theory. (...) However, explanation comes from the case, not from some theory which is imposed on the case."[19] Their position is that selecting an analytical framework prior to observation will turn the case into an illustration of that theory. I have continuously looked for theory and previous empirical observations that relate to my observations in parallel with making interviews. My objective has been to find ways of making sense of the observations I make, to identify interesting avenues for further exploration and to see to what extent patterns in the observations I make are recognisable in the observations others report. I have thus employed a continuous interaction between my own observations and theories and observations provided by others. Thus I use theory

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17 D T Otley and A J Berry, Case study research in management accounting and control, *Management Accounting Research* 1994, 5, 45–65

18 Robert Scapens and John Roberts, Accounting and control: a case study of resistance to accounting change, *Management Accounting Research*, 1993 pp. 1–32

19 Ibid. p. 3

to make sense of observations and observations to guide the selection of theory, and, perhaps, develop theory.

What a researcher observes is influenced by what he knows and believes. I have tried to keep an open mind when making interviews, and the 'surprises' recounted above (see p. 27) are examples of my empirical observations influencing the course of my research, but obviously my frame of reference has influenced my choice of research question as well as how I have addressed it. At the outset I was heavily influenced by change process thinking, such as Soft Systems Methodology (Checkland and Scholes) and in seeing the balance between aspects (Lundeberg). Successively, as I have become more familiar with the specific topic of management accounting and control projects, I have found literature that has addressed areas that my observations indicated as important (such as user participation). Power changes mainly entered via literature (Dent, Markus and Pfeffer, ...) but once made aware of how it was considered important in management accounting and control development I could see parallels in my empirical observations.

3 Theoretical framework

I see three parts of the theoretical framework:

- thoughts and discussions that have formed my world view and thereby influence what I note when I conduct research
- previous empirical research that I can compare my observations with, and
- other people's discussions (normative or speculative) that I can relate to when discussing my results.

One purpose of this chapter is to give the reader a picture of literature that I found relevant in developing my understanding of the area under study. Working at the department of Information Management, literature within that area has been a natural starting point, specifically systems theory,[20] change process literature and information systems development literature. Given the specific area of attention in this thesis, management of management accounting and control projects, I have added the areas of project management and of management accounting and control literature to the

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[20] In ordinary conversations 'system' is often used as a synonym for the software part of an information system. In Systems theory the term 'system' is a mental construct. A system is what we choose to regard as a system. Thus we could choose to view the principles of management accounting and control as a system. We could also choose to view a computer application, where the principles form the basis for the computation of product costs or department profit, as a system. Yet a view of a relevant system to consider would be one including the principles as well as the stakeholders who use the principles or are described by them, and the business activities they all perform.

The point of viewing something as a system is that it focuses on the parts that make up the system, and the *interaction of the parts*, rather than each part in isolation. Thus viewing a system consisting of an information system, the people using it, and the business activities they perform indicates that changing one part, such as the principles underlying the information system, is likely to affect the users and the business activities, and that the interactions between the parts deserve consideration. I use the word 'system' in this book to denote the system under consideration, thus sometimes referring to the principles, sometimes to a set of principles, sometimes to a computerised information system application, sometimes to a set of stakeholders, etc. The context will indicate what I refer to when writing 'system'.

field I have searched for inspiration. In this chapter I thus present those parts of my world view that directly relate to my research question and how I have chosen to address it. Previous empirical research that builds on surveys or other larger samples will also be presented in this chapter, while case studies that I want to make comparisons with will be presented in section 4, page 118 ff.

In addition to giving a general background, a second purpose is to specifically develop the framework for the analysis, detailing the aspects who, what, when, and how, and the concept 'consequences'.

The first three of the aspects that I find important when discussing the handling of perspectives are when, what and who (see Figure 3.1). It can be expected that a project manager will act differently at different points in time. The question of *when* is not unproblematic, and I begin by discussing different ways of describing the aspect *when* in the project process (section 3.1). *What* refers to the aspect of the perspective that is considered or disregarded, while *who* refers to classifications of the people whose perspectives are in focus (or are left unattended). *Who* and *What* are discussed in section 3.2.
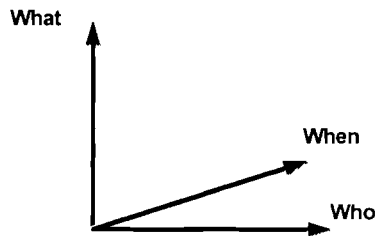
Figure 3.1 Three aspects of action

Yet an aspect when studying the patterns of communication is *How*. I discuss *How* in terms of the balance between seeking input and sending, of manner and directness of communication, and types of participation, where the types of participation differ in the amount of influence and control that they give the participant. This is also done in section 3.2.

Communication can thus be described by the properties Who, What, When and How. Perspectives management is the collection of implicit and explicit choices in the pattern of communication.

When discussing 'consequences' I take as a starting point that principles of management accounting and control are developed to be applied and used, and that the use is intended to promote the performance of the organisation. In section 3.3 I mainly review literature on system success, user satisfaction, and user participation, to derive a framework for discussing consequences of the project managers' attention to the perspectives of stakeholders, especially the users.

3.1 Project process

There are different ways of describing timing. Calendar time and chrono-logical order are obvious possibilities for describing any process. Stages are a popular way of subdividing specific processes. (Stage could be used to signify activities that need not necessarily be mutually exclusive: activ-ity in a specific stage does not preclude parallel activity in another stage). But stage when referring to management accounting and control projects is not a uniform notion. Stages could be in terms of the project, the devel-opment cycle, or the product life cycle. In section 3.1.1 I explore these three notions and relationships between them. Drawing on this discussion and on change management literature I propose (in section 3.1.2.) a phase model for the management accounting and control principles life cycle that I can use when discussing my empirical observations.

3.1.1 Three stage concepts

The three stage concepts generic project stages, information systems development stages, and product life cycle stages are to some extent described using common terms. This may lead to confusion when dis-cussing a specific process in a specific organisation or when comparing different projects. In this section I present those three stage concepts and explain how I see that they relate to each other.

3.1.1.1 Generic project stages

According to project man-agement literature[21] every project can be described in terms of stages – conceptu-alisation, planning, imple-mentation, and termination (see Figure 3.2). Imple-mentation here refers to the execution of the plans, not
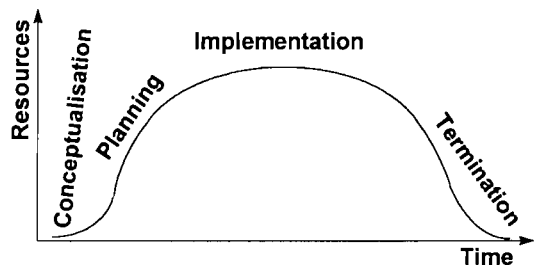
Figure 3.2 Project phases

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[21] See for example Sunny Baker and Kim Baker, *On time/on budget*, Prentice Hall, 1992, p. 15 ff., Linn Stuckenbruck, What is a Project, p. 2 ff in *The implementation of Project Management*, Stuckenbruck (ed.), Addison-Wesley, 1981, or p. 76 ff. in Svein Arne Jessen, *The nature of project leadership*, Scandinavian University Press, 1992,

to the implementation of the project results. Other terms for this phase are production or operation.

3.1.1.2 Information systems project stages

Information systems literature provides stage models that could be compared with the development and implementation of management accounting principles. The traditional waterfall model[22] depicts development as a series of stages starting with analysis of needs and ending with construction of the information system or possibly implementation of it in the organisation it is to support. V-shaped models,[23] such as that shown in Figure 3.3, emphasise the consecutive checking in later stages (the right part of

Figure 3.3 Information systems development phases, the V-model (from Nilsson 1988)

the V) that the constructed information system meets the needs identified in earlier stages (the left part of the V).

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[22] See for example pp. 50–51 in Olle, Hagelstein, Macdonald, Rolland, Sol, Van Assche, Verrijn-Stuart, *Information Systems Methodologies*, Addison-Wesley, 1991 (2nd ed.)

[23] See for example Anders G Nilsson, *Information Systems Development: A Frame of Reference and Classifications*, Institute V, 1988, p. 7–8; Edwards, Chris; J Ward and A Bytheway, *The essence of information systems*, Prentice Hall, 1991, p. 116; Mats Lundeberg, *Handling Change Processes; A Systems Approach*, Studentlitteratur/Chartwell-Bratt, 1993, p. 227.

3.1.1.3 Product life cycle stages

As the name implies, product life cycle stages refer to stages in the entire life of a product, rather than restricting attention to the *development* of the product. Product life cycles thus encompass not only the idea and creation phases that form the focus
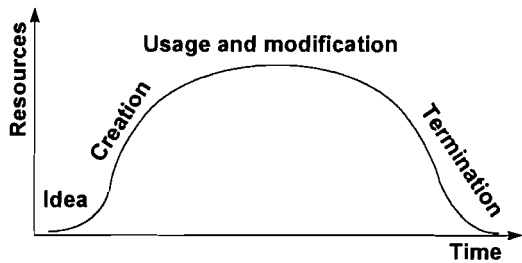
Figure 3.4 The product life cycle

of information systems development phases, but also continued use, adaptation, and phase out (the Usage and modification, and Termination phases in Figure 3.4). Although the development perspective (exemplified in section 3.1.1.2) is common in information systems literature, a product life cycle view of information systems also exists.[24] In project management literature Kerzner (1989)[25] draws on the concept of product life cycle phases to discuss project life cycles, but I want to go further, explicitly relating the different phase concepts discussed above to each other.

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[24] See for example Tor Larsen, Organizational information technology related innovation: a framework for mapping and development of research issues, in *proceedings from NOKOBIT 1993*, The Norwegian School of Management, 1993.

[25] p. 77 ff. in Harold Kerzner, *Project management: a systems approach to planning, scheduling and controlling*, Van Nostrand Reinhold, 1989.

3.1.1.4 Relations between the three stage concepts

In Figure 3.5 I have related the three views project stages, information systems development stages and product life cycle stages to each other. I have placed the *product life cycle* stages at the bottom of the picture.
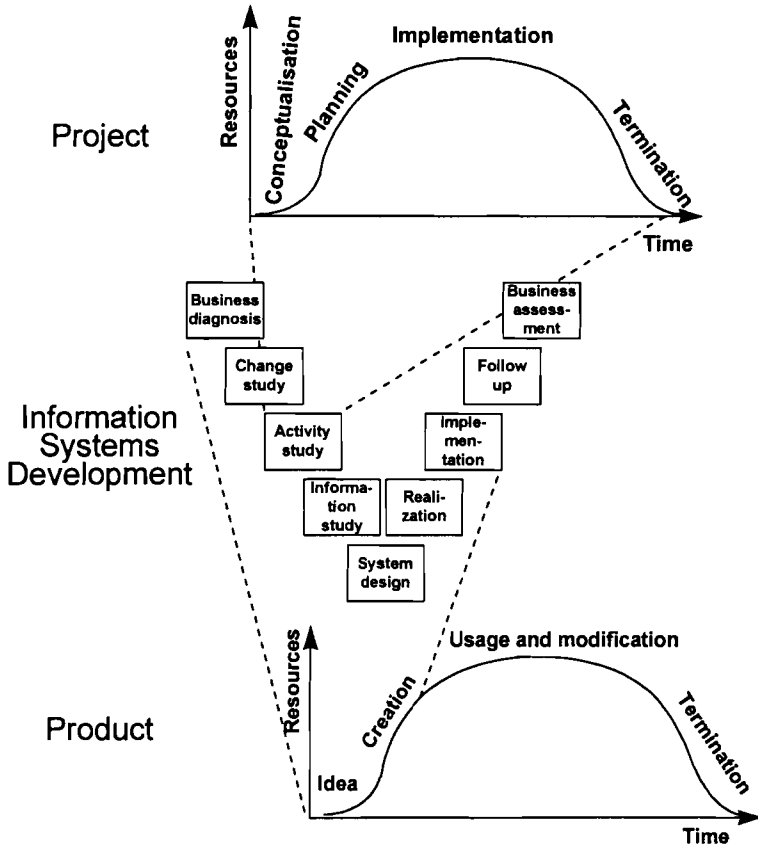
Figure 3.5 The relationship between project, information systems development, and accounting principles life cycle

Considering the case of management accounting and control the 'product' would be a management accounting and control system. The development of management accounting principles would then be a first step, corresponding to parts of the idea and creation phases of the *management accounting system life cycle* (at the bottom of Figure 3.5).

In the *information systems development stage model* (the middle of Figure 3.5) the development of management accounting principles could encompass the steps from Change study down to System design. Business diagnosis would have preceded the development and led to the conclusion that development of new principles was called for. Developing information systems according to the new principles would also be part of the creation phase in the *product life cycle* but would encompass the stages from Activity study to Realisation in the *information systems development stage model*. The principles would then presumably be embodied in an information system and then used for years or possibly decades[26] during which time they and the corresponding information systems would be modified (usage and modification in the product life cycle in Figure 3.5) until a point in time when the need for more radical rethinking would initiate a termination phase in life cycle terms. During this termination phase the principles and the information systems would be abandoned in favour of new principles and information systems.

The main *information systems development activities*, illustrated in the middle of the figure, would correspond to the product phases idea and creation, as indicated by the dotted lines between the two models. (Modifications during the usage phase of the product life cycle would initiate new information systems development efforts, which could again be described by the IS development stage model.) The V-model is normative. It is not obvious that the idea phase of the actual life cycle of a set of management accounting principles would include the steps Business diagnosis, Change study and Activity study, at least not in the elaborate form suggested in information systems development literature. It seems likely, however, that some consideration is given, at least informally, to those steps during the idea and creation phases of the product life cycle.

A *project* would typically not cover an entire product life cycle. As shown in the figure above, it may not even cover a complete information systems development cycle. The project illustrated at the top of the figure

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[26] William Bruns describes an attempt to change the management accounting in a company that has adhered to a set of principles for almost 30 years. (W Bruns, A field study of an attempt to change an embedded cost accounting system, in W Bruns and R Kaplan (eds.) *Accounting and management: Field study perspectives*, HBS Press, 1987) When I was looking for cases, my initial contacts with senior financial managers in Swedish enterprises furnished me with examples of companies where the same set of principles had been used for 20 years or more.

encompasses an activity study and a preliminary information study, as indicated by the dotted lines between the two models. This could be a likely scope for a project exploring new ground in management accounting, such as trying to find out which non-monetary measurements and indicators would be useful in management accounting. A full information systems development cycle could thus consist of a number of distinct projects with more or less well designed interfaces. At one extreme a new project could pick up exactly where a previous project finished. At the other extreme all progress made during one project could be lost, dispersed or forgotten when the new project starts, meaning that the new project would start at the same point in the information systems development cycle as the previous project, probably resulting in reduced enthusiasm experienced by a number of stakeholders.

Figure 3.6 shows a conceptual model of the relationship between the three stage concepts. During a product life cycle (in this case the life cycle of a set of management accounting principles) a number of information systems development cycles could be entered, intended to design and implement information systems according to the current set of management accounting principles. Each such information systems development cycle could consist of a number of distinct projects: the conceptual work could be one project, the building or acquisition of the computer program another, and the implementation a third, for example.

Figure 3.6 Conceptual model of relationship between project life cycles, Information systems development, and Accounting principles life cycle

To conclude the discussion it could be noted that to avoid confusion it is important to be specific as to what kind of stage or phase is meant when discussing management accounting projects in terms of stages or phases; is it a project stage, an information systems development stage or life cycle stage for a management accounting system or concept?

In the next section I propose a phase model for the management accounting and control principles life cycle, drawing on the three models presented in this section as well as on change management literature. This phase model will be used in the description of the management accounting and control projects in chapter 5.

3.1.2 A phase model for the management accounting and control principles life cycle

The X-model (Figure 3.7, from Lundeberg 1993[27]) is a tool for discussing processes, and stages in processes. The model states that each process uses input (taken from the state prior to the process) and produces output (intended and unintended outcomes of the process). Any process leads to changes compared with the initial state. In addition the X-model stresses the point that it makes sense to consider a task level as well as a person

Figure 3.7 The X-model

level for every process. Lundeberg suggests that maintaining a balance between the person and the task level in a change process leads to better results than a singular focus on either level.
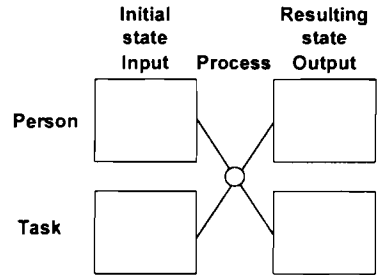
On the task level (the lower part of the X-model), part of the initial state in the projects I study is an established set of business operations – a going concern. The established set of business operations can be stable and uncontested, or in a state of flux and redefinition. Another part is the existence of principles and information systems for management accounting that one or more individuals no longer view as giving a satisfactory support to the existing or planned business operations. Consequently, they intend to establish principles and information systems (at some future point in time) that they believe will facilitate the operation of an efficient and profitable business.

The person level (the upper half of the X-model) is also complex with many possibly interesting aspects. A precondition for a project to be started is that someone wants it to start. Normally there are also people whose interest is moderate, non-existing or even opposed. The level of knowledge – regarding project management, management accounting, the business in question, etc. – also differs between individuals. Some projects aim at learning, increased knowledge, changed attitudes, etc. In other

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[27] Mats Lundeberg, *Handling Change Processes; A Systems Approach*, Studentlitteratur/Chartwell-Bratt, 1993, p. 15 ff.

projects these are not intended results, but the project will still produce some outcomes of that nature.
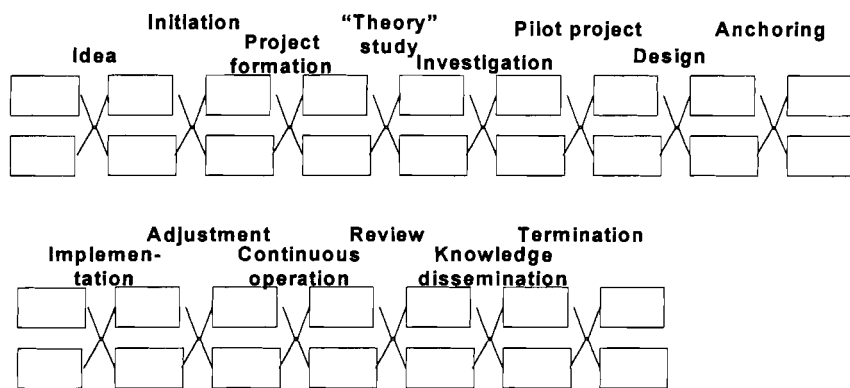
Figure 3.8 Phases in the life cycle of principles of management accounting and control

A more elaborate phase structure of a product life cycle for a set of principles of management accounting is shown in Figure 3.8. A specific project need not include all these phases, and some phases may be prolonged and run parallel to others, or be repeated at intervals, but I propose that a management accounting and control project should be possible to map in terms of these life cycle phases. The model describes the entire life cycle. Projects are, however, likely to cover only the phases from project formation to adjustment (or some of those stages). As they may be influenced by the idea and initiation stages, and may have consequences stretching beyond the adjustment stage, I prefer to view them in the context of the entire life cycle.

I developed this phase model as a way of structuring the rather large collection of suggested stages that I had encountered in literature and in the early part of my empirical investigations. In section 6.3 I will return to the question of the usefulness and accuracy of this model.

The phases suggested make possible the comparison between projects in relation to the life cycle of the principles. Investigation, design, anchoring, implementation, etc. relate specifically to the subject at hand. Generic project phases do not take the specifics of developing and implementing principles of management accounting and control into account. The model above is rather closer to an information systems development model, but one specifically adapted to the topic of management accounting and con-

trol, and extended to account for the life beyond development, as consequences of the development decisions may become apparent only with time, not directly during the development.

The life cycle starts with an idea arising in someone's mind.[28] Someone wants to revise the principles of management accounting and control. The next step is that the idea is turned into action – Initiation. Someone starts the process of developing new principles. A popular way of making the process more concrete is to form a project.[29]

If the subject area is not the speciality of the project manager, the project enters a stage of studying available knowledge; literature, consultants, conferences, etc. This may be a specific step limited in time, or a continuous or intermittent activity during the rest of the product life.[30] A next step is investigation of the present situation and of possible needs that are not met at present, and that new principles could help in meeting.[31]

A pilot project studying a specific and limited part of the organisation may be a part of the investigation phase or a transition between investigation and design.[32] Design is when a new set of principles is drafted. It may include design and construction of computerised information systems, but need not do so. The principles may be used in a largely manual information system, or they may be possible to implement in an existing computerised information system.[33] The next phase in Figure 3.8 is Anchoring. Getting the new principles accepted could well be an activity that extends in parallel with the stages up to and including implementation, and then perhaps leads to adjustments.[34] Implementation is an obvious phase in a

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[28] I borrowed the idea of this phase from the model of generic product life cycle stages.

[29] Initiation and project formation are concepts that appear in project management literature.

[30] I encountered theory study in some of my early empirical investigations, and included this as a phase in the model because I believed that it could be useful to distinguish between learning about the type of modelling the project would entail, and learning about the specifics of the organisation that would be described by the principles of management accounting and control. The former I called 'theory study', and the latter 'investigation'.

[31] Investigation is prominent in information systems development models.

[32] Pilot projects are proposed in project management literature as well as in information systems development literature as a way of refining the knowledge on which the final design is based.

[33] Design viewed as one or more phases appears in information systems development literature as well as in the product life cycle tradition.

[34] Anchoring is not an obvious part of any of the models described above. In information systems development models as well as in project management models the task

complete life cycle of principles of management accounting and control.[35] The phase Adjustment may be less obvious, but any set of principles, and their embodiment in an information system, is likely to undergo adjustment and modification during its life.[36]

When the product 'accounting principles' moves into continuous operation,[37] information systems development theory would suggest that a review is performed to determine if the application meets the specifications and if the previously specified demands on the application are still the relevant ones or if new ones have arisen or can be identified. Such a study is one thing; the dissemination of the knowledge derived from the development and through the review another, and to emphasise this I have depicted them as two distinct phases: Review and Knowledge dissemination. Review and/or knowledge dissemination are phases that project management literature suggests should end every project. If a product life process, such as that described here, is a result of many projects, several phases of reflection and knowledge transfer should already have occurred. Judging from management literature and discussions with practitioners, reviews and systematic learning from previous experiences seems to be a field given low priority in practice. I should therefore not be overly confident of finding much effort expended on such tasks.

Termination is the final phase when the principles are replaced with new ones.[38] It is not focused on in my study, although old principles exist and are being or will be phased out as a result of the processes I am studying.

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is often viewed as making certain that the product produced meets the specifications derived at the beginning of the process. In information systems literature there are also discussions of problems with this rather technical and static view of how to ensure that the product delivered is acceptable (a discussion I return to later in this chapter). In the model in Figure 3.8 I decided to include the activity of making certain that the principles developed are acceptable to stakeholders, resembling the checking stages of the right part of the V-model, but giving the phase the label 'Anchoring' to indicate the possibility of a 'softer' view of what this checking entails.

[35] Implementation appears as a typical stage in information systems development models.

[36] In information systems development models, adjustment is often modelled as arrows indicating possible repetitions of sequences of stages. I chose to present it as a specific stage instead, in line with the view of the product life cycle (usage and *modification*).

[37] 'Continuous operation' I then view as the period of usage that follows implementation and initial adjustment. It is also borrowed from the life cycle view of information systems.

[38] The idea of a termination phase is borrowed from the product life cycle model.

Termination of *projects* within the product life cycle could, however, be of interest with regard to perspectives management. Termination of a project may appear anywhere in the sequence above, since a project may be limited to one phase or even to a portion of one. Whose perspective is attended to during the phase-out of a project? Does the project manager care for the project process and those stakeholders who have a continued interest in that process or does he limit attention to his own project? In terms of the phase model in the figure this is covered in the *knowledge dissemination* phase, but a strict, narrow project focus may also affect the project manager's behaviour in all the product life cycle stages that the project covers.

I propose that the model of phases presented in Figure 3.8 provides a useful structure for detailing the 'when' aspect.

3.2 Important parties and perspectives

In this section I discuss literature relating to the 'who', 'what' and 'how' aspects, deriving ways of detailing them.

The question 'Who?', if taken to mean a person in relation to something, is also dependent on the definition of the point of reference. 'Who' could be in relation to the organisation, the project or the end product of a planned development and implementation. A specific person could be related in all three ways. An example would be a person who is the executive in the company, the initiator of the project and the primary customer of the project result. In this section I start by discussing ways of detailing 'who'.

I then turn to discussing 'perspective'. This discussion takes the subjective nature of information as its starting point. The perspective is viewed as the part of a person's frame of reference used when considering a specific topic. The discussion then moves on to exploring implications this has for communication and the possibility of understanding someone else's perspective. The similarities of the interpretations made by individuals in a group, and differences between members of different groups provide possibilities and obstacles for such understanding. The discussion leads to the notion that the 'what' aspect could be detailed in terms of how much the project manager tries to understand a stakeholder's perspective. Simply looking for a person's descriptions of 'what is', taking it as a piece of data to be considered without further inquiry into

the person's thinking, would be at the low end of such a detailing of 'what'. Seeking to understand more and more of how the person perceives the topic in question and what shapes his perception would mean moving up the scale.

The rest of the section is devoted to discussing the 'how' aspect, based on change process and information systems development literature. Starting with the relation between input and output in the project manager's communication, the discussion turns to manner of communication. A body of writing in systems development literature with bearing on the 'how' dimension deals with user participation. I therefore end the section by drawing on user participation literature to develop further ways of detailing the 'how' aspect.

3.2.1 Who is important?

Whose perspective is important for the project manager to perceive and handle? Writings from the fields of project management, accounting, information systems development and change management provide possible answers to the question. In this section I present suggestions from sources belonging to these fields and discuss their applicability to management accounting and control projects.

Project management literature often discusses roles vis-à-vis the project. Typical roles are:

- the manager who ordered the project and who will pay for it
- the people who will work in the project organisation; in the project team, in specialised work groups, sit in reference groups and in the steering committee.
- those whose favours will be needed in order to complete the project
- the 'users' who will be affected by the project output.

Project management literature is typically written for project managers. A way of looking at roles from that point of view is by taking a traditional positional power perspective relating others organisationally to the project manager. Who is his boss? Who are not his bosses but rank above him? Who are his peers? Who are his subordinates? Who are not his subordinates, but rank below him on the organisational ladder? Considering the informal network, the project manager's ranking will be affected not only by his present position as project manager, but also his previous, and, if

known, his position after the project is completed. Project management handbooks raise the question of hierarchical authority, but tend to suggest that other forms of influencing important people and stakeholders will prove more effective in the long run.[39]

People outside the organisation, such as customers, suppliers, pressure groups, and competitors, fall outside the positional power perspective, but they are classes in a functional view of the company and its environment. An aspect of the functional view is the distinction between project and line organisation. This distinction is often raised in project management handbooks as projects normally compete with the line for resources. The aspect stressed is then that the project manager should find ways to ensure that the time and attention of those persons whose help he needs in the project is not monopolised by the line organisation.

3.2.1.1 Stakeholders noted in systems development literature

According to Soft Systems Methodology (an approach to change management), three important roles in relation to a change are Owner, Actor, and Customer.[40] Owners are those who can stop the change from taking place, actors are those who perform the change, and customers are those who are affected by it. In these terms the development and implementation of principles of management accounting and control is a change. The project manager is an actor, and he may or may not enlist more actors in the project. Heads of finance and accounting could be expected to be owners, and possibly, but not necessarily, top managers in the organisation could take the role of owners towards the change too. If the use of the management accounting and control principles is voluntary rather than mandated, important information users may be yet a group of owners.

The classification into the roles Owners, Actors, and Customers, is not a detailed one, but I have found it useful when coaching change projects. Finding out who could be regarded as an owner and who would be useful to have as actor could be important, and they are also tasks emphasised in project management handbooks. The third category, customers, is, however, in danger of being treated lightly in a project where the project manager's principal is not synonymous with the 'customers' of the

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[39] See for example W J Taylor and T F Watling, *Successful project management*, Business Books Limited, London, 1970, p. 36.

[40] Peter Checkland and Jim Scholes, *Soft Systems Methodology in action*, John Wiley & Sons, 1990, p. 45 ff.

change. In management accounting and control projects it can be expected that there are a number of 'customers' who are not the project manager's principal. According to Soft Systems Methodology (SSM) it is important to think about customers in terms of beneficiaries and victims of the change. Taking the view of perspectives management, the interesting aspect of a probable customer is then if he *perceives* himself as a customer, and if so, whether as a beneficiary or a victim.

Specifically applied to management accounting it may prove useful to find complementing and more detailed classifications. The product 'new applied principles of management accounting' has a number of customers: those producing input to the system and whose operations are subject to scrutiny by means of the management accounting, those who operate the system (possibly largely accountants), those who use the output to monitor their own operations and those who use the output to monitor and evaluate someone else's operations.

Discussing information systems in general Olle et al.[41] use the categories shown in the table below.

Roles according to Olle et al.	Corresponding SSM roles
Executive responsible	Owner, Customer (?)
Development co-ordinator	Actor
Resource manager	Actor
Business analyst	Actor
Designer	Actor
User acceptor	Customer, Actor (?), Owner (?)
User	Customer
Constructor acceptor	Actor, Owner (?)
Constructor	Actor

As can be seen from the classification I have made of the roles in Olle et al. in terms of the SSM roles, the focus is on the production side of development: Olle et al. have elaborated the actor side of the process; those who develop the information system. They thus distinguish between a number of different actor roles, while the customer and owner roles are given a less thorough treatment. Their classification also rests on the assumption that the users should have some influence over the develop-

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[41] Olle, Hagelstein, Macdonald, Rolland, Sol, Van Assche, Verrijn-Stuart, *Information Systems Methodologies*, Addison-Wesley, 1991 (2nd ed.)

ment, at least as 'acceptor' of the proposed design. If the acceptor has the power to veto a proposed design, then it is also in some sense an owner role.

Writing about accounting information systems Cushing and Romney[42] suggest the roles:

- Management
- IS Steering Committee
- Project development team (consisting of system specialists, management, and users affected by the change[43]).

The focus of this view differs from those presented above in its strong emphasis on the management roles. According to Cushing and Romney, management and the IS Steering Committee should look to the system development effort in context and ensure that it is possible to carry out, and that the result is useful and not in conflict with company goals or existing desirable structures. All other aspects are lumped together under the general heading 'project development team'.

Writing about database oriented systems development, Sundgren[44] distinguishes between the object system (that which the information system describes) and the subject system (actors and interested parties who directly or indirectly pose demands on services from the information system) and suggests that the object system is taken as the starting point for the development effort. When the developers have produced a fairly detailed model of the object system it is time to compare this with the

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[42] Barry Cushing and Marshall Romney, *Accounting Information Systems*, Addison-Wesley, 1994 (6th edition), p. 350 ff.

[43] "Team members should communicate frequently with users and hold regular meetings to consider ideas and discuss progress so that there are no surprises upon the completion of the project. A team approach produces more effective results and facilitates the acceptance of the results by all parties concerned." Cushing and Romney, p. 352.

"Once the user requirements have been determined and documented, the project team must meet with the users, explain the requirements, and obtain their agreement and approval. [ ] It is important that the project team be responsive to the questions, comments, suggestions, and concerns of users. [ ] it is essential if the user commitment necessary for successful development and implementation is to be obtained." Cushing and Romney, p. 406–407. Who is a user is however not discussed, and trade-offs between benefits and costs of communication are not discussed.

[44] Bo Sundgren, *Databasorienterad systemutveckling*, Studentlitteratur, 1992 (In Swedish). (English translation of title: Database oriented systems development) , p. 270 ff.

demands posed on the resulting information system by the subject system. Sundgren identifies the following stakeholders in the subject system.

Roles according to Sundgren	Corresponding SSM roles
Buyers, who order, pay for and decide over the IS	Owners
End users, who are served by information from the system. These can be divided into information users and customers who use products and services produced by information users.	Customers
Users; operators who handle the system and relay its services to the end users.	Customers
Victims, who are negatively affected by the information in the information system[45]	Customers
External parties, who are not users or end users, but may want to guard their own interests	Customers
Application developers and those responsible for applications	Actors
Data base administrators and IS co-ordinators.[46]	Actors

Here much greater emphasis is placed on the customer roles, for example making the distinction between those who handle the information system, those who use the products from the information system and those who use products produced with the aid of the products from the information system. Possibly missing in the list above, when considering management accounting, are those whose actions the system is designed to monitor, namely those managing and working in the business activities that the management accounting describes. To some extent they could be found under the heading 'Victims' (if they stand to lose from the application of the new principles of management accounting and control), and possibly to some extent under 'End users', but they are not explicitly included in the list. In the context of management accounting and control systems they cannot be treated only as parts of an object system since a typical purpose of a management accounting and control system is to influence the 'object system' to perform more efficiently or effectively. It would

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[45] Note that 'Victims' here is much more narrowly defined than the SSM concept of 'Victims' as all those who are negatively affected by the change.

[46] Sundgren, p. 63–64

thus be natural to include them as an explicit category in the subject system.

3.2.1.2 Discussion of roles

The suggestions of important roles given above show differences in focus: for some the principal is the most important, for others the people performing the change, and for yet others the people who will use the product of the change or be affected by it. Successful project management probably entails paying attention to more than one aspect. When procuring resources, possibly by wielding power, the project manager will focus on certain aspects and see some roles, for example positional roles, as particularly important. When the purpose is to understand the operations which the project is intended to describe or change, it becomes natural to focus on the people working in and closely with the organisation. Pleasing or satisfying the customers of the change or pleasing the principals puts them and their expectations at the front. Finding discussion partners and ways of gaining subject knowledge in order to design solutions, such as new management accounting principles, turns the focus of interest towards yet others.

Olle et al., Cushing and Romney, and Sundgren all seem to propose that developers should start the process and involve users only when the developers have formed a picture of the operations, or even of the information system that is to support the operations. This approach to development seems to be based on an assumption that the developers know what the users ought to have. In contrast Taylor and Watling[47] suggest that it is important to meet, discuss, and negotiate with the customer – not to influence his decisions, but to better understand what he wants. "What does occur is a greater understanding of the project problem as the customer sees it and to fit the project to that understanding. There may be two ways of meeting a specification, but one may be preferred even though both are of equal technical merit and cost."[48]

The listings above all seem to presuppose that the subject knowledge needed to design an appropriate system can be found among the people who take the roles listed. Subject experts are not suggested as a separate

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[47] W J Taylor and T F Watling, *Successful project management*, Business Books Limited, London, 1970

[48] Ibid. p. 37

role in any of the listings above. A functional perspective, such as that indicated by Porter's value chain[49] may thus provide a valuable addition when discussing a specific type of project, such as one striving to develop management accounting principles. Accountants and controllers, subject specialists when it comes to management accounting principles and systems, are in the functional perspective classified as performing support activities, and form part of the firm infrastructure. Much of what the management accounting tries to describe is primary activities, where the subject specialists are people in production, marketing, sales, etc. rather than the accountants or controllers supporting or evaluating those functions.

One way of viewing 'whose perspective' is then in relation to the management accounting and control system (see Figure 3.9): to what extent does the project manager perceive and handle the perspectives of those whose work is described by the accounting,[50] of those who operate the accounting,[51] of those who are to use the accounting information[52] and of those who are the owners of the system of accounting?
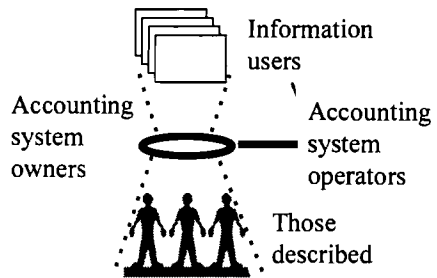
Figure 3.9 Roles in relation to the management accounting and control system

The roles listed in the right part of the figure relate (from bottom to top) to the input, processing, and output of the system. 'Those described' are related to the system by being the subjects in the object system described. The 'Accounting system operators' handle the processing that turns input into output (including obtaining input). The 'information users' try to derive information from the output of the system.

This model is kept simple to focus on some distinctions. Thinking of it as a cross, the vertical axis focuses on those whose behaviour the management accounting and control system is intended to affect: the information users and those who manage and perform the business activities

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[49] Michael Porter, *Competetive Advantage*, The Free Press, 1985, p. 36 ff.

[50] Relating to the discussion of object and subject system above, those described are the subjects in the object system

[51] "Users" in Sundgren's terms (see p. 49 above).

[52] "End users" in Sundgren's terms.

that the management accounting and control system attempts to describe ('those described' for short). The horizontal axis contains stakeholders for whom the system is an important part of their work (either in terms of responsibility or in terms of actual tasks), but whose behaviour the principles are not primarily intended to affect: the accounting system owners and the accounting system operators. The role holders on these two axes can be expected to value different aspects of the system. The internal consistency and the maintainability may for example be important to a system owner or a system operator, while someone described or someone using information from the system may be more interested in that the principles depict the peculiarities of the business activities they are involved in in a way that they find fitting.

Another distinction made in the model is that it does not treat 'the user' as a homogeneous concept, but distinguishes between accounting system operators and information users.[53] These two 'user' groups can be expected to value different aspects of the system.

Along the vertical axis the model distinguishes between information users and 'those described'. A person may simultaneously hold both roles; he may use information derived from a description of the work he performs. It is however likely that there are also information users who use information describing work performed in other parts of the organisation, and 'those described' who are not users of that description.

The model proposes that these four role categories are useful to distinguish. However, the model's description of roles does not stand in opposition to the possibility of a large degree of variance between individuals or groups within each role category.

Another way of viewing stakeholders is in relation to the change effort (see Figure 3.10): the owners (O), actors (A) and customers (C) of the change (Δ) in management accounting. This is a classification of stakeholders suggested in Soft Systems Methodology.[54] Who becomes involved as actor in the change process? To what degree does the project manager perceive and handle the perspectives of different owners and customers of the change? What are the effects of being actors on customers?
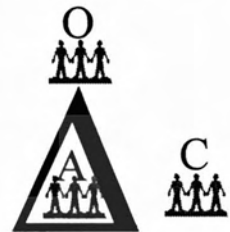
Figure 3.10 Customers, Actors, and Owners of change

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[53] This distinction is based on Sundgren's distinction between users and end users.
[54] See p. 46 above.

These two ways of viewing 'whose perspective' relate to each other. The information users, system owners, system operators, and those described (the roles in Figure 3.9) are all customers of the change (C in Figure 3.10). Some of them may also be owners of the change process or actors in it.

In information systems development literature a number of writers and researchers have focused on relations between these two aspects – the end product (the basis of Figure 3.9) and the process of arriving at it (the basis of Figure 3.10). Below, in section 3.2.4, p. 67 ff. I take a closer look at this body of writing.

In this section I have discussed 'whose perspective', arriving at two models for describing 'who' – one that places 'who' in relation to the change effort, and one that places 'who' in relation to the product; the management accounting and control system. In the next section I turn to discussing the concept 'perspective'.

3.2.2 Perspective

The Random House dictionary defines perspective as "a broad view of events or ideas in their true nature and relationships". I find 'Whose view?' to be an important question. A perspective is *someone's* perspective.

Each person views and understands the world from his own vantage point. In the field of Information Management *information* is a central concept given a more precise meaning than that commonly used by laymen. Information is defined as a subjective concept; *interpreted* signals. Langefors[55] formulated a definition of information as an equation: $I=i(D,S,t)$. Information (I) is the interpretation a person makes of a message (D) given his previous knowledge and frame of reference (S). The interpretation (I) is also dependent on the amount of time (t) spent interpreting the message. The interpretation process is termed i. The equation $I=i(D,S,t)$ points out the difference between data (D) and information (I). It also points out the importance of who is making the interpretation. The frame of reference (S) of each person is unique. Two persons receiving the same message may therefore interpret it differently.

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[55] First published in 1966 but presented and discussed in many publications by Langefors, the most recent being Börje Langefors, *Essays on Infology*, University of Gothenburg, 1993, p. 150.

In terms of this equation, a project manager seeking information can only receive messages (D), not information (I). Given that there is a sufficient similarity between (relevant parts of) the frames of reference of sender and receiver, the interpretation the receiver makes

I=i(D, S, t)

I – Information

i – The interpretation process

D – Message received

S – The interpreting structure

t – Time used for the interpretation

Figure 3.11 The Infological equation

may closely resemble what the sender tried to convey. Understanding someone else's perspective is not just a matter of trying to understand the messages received. It may also involve trying to find out about S and i; the previous knowledge and beliefs of that person and the process by which he interprets what he encounters.

When a project manager is about to perform actions or otherwise handle questions that affect others, he may want to be able to draw relevant conclusions concerning possible consequences of these actions. Hearing what others say may then help him. Better still would be to understand what they mean, and yet better to understand what makes them say what they say. All three are levels of ambition in paying attention to someone else's perspective. The three levels are then, in order of ambition: listening to statements formed by someone's perspective, understanding the meaning of the statements, and understanding the perspective. (The statements may for example be descriptions of what is, or opinions on what is or what ought to be.)

Returning to the infological equation, taking a project manager as an example, I is the project manager's interpretations of D given his S (his frame of reference). The D and the S are not independent of each other. Our frame of reference may limit what we notice (what D we perceive), and what we notice may influence our frame of reference.[56] This way of reading the equation focuses on how we interpret input we receive. This is only one half of an act of communication. The other part is the output side. People state descriptions and opinions. These are shaped by their perspective on that which is described or that is the subject of an opinion.

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[56] This bears resemblance with Giddens' structuration theory. (Anthony Giddens, *The Constitution of Society: Outline of the theory of structuration*, Polity Press, 1984) The structure is not static. It develops continuously through what we do and experience, but at the same time it influences what we do and experience.

Reading the equation in another direction, the D they send is based on the information they want to send and based on their S (that could include their perception of others' perspectives[57] but need not consciously do so).

The frame of reference consists of knowledge and experience, but also of values and opinions. Examples of obvious importance in an organisational setting are notions of what constitutes legitimate authority, relative importance of working life and private life, inclination towards or against teamwork, etc.[58] Briner et al[59] state that the project manager should try to learn as much as possible about important stakeholders before approaching them in order to be able to understand them and handle them successfully. Aspects to learn about include what is important for them, how they act and work, what their interests outside work are and who they look up to.

Some of these examples are tied to the person as such, some are shaped by the situation in which he finds himself. The word perspective is derived from the Latin *Perspicere* – to look through. I view the perspective as the looking glass of one's values, previous experience, and perception of the situation which forms one's perceptions of a topic or phenomenon and colours one's statements about this topic or phenomenon. Figure 3.12 illustrates how the descriptions and opinions a person states about
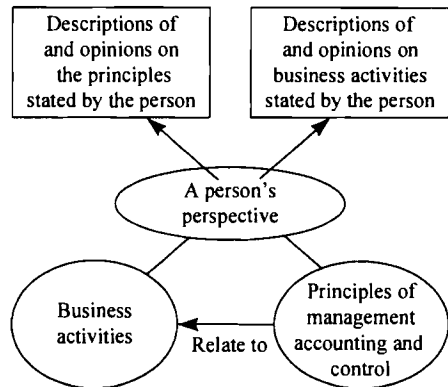
Figure 3.12 Descriptions and opinions shaped by the perspective

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[57] Langefors stresses that in order to be able to convey a specific piece of information to someone else we have to know that person's S as well as the t available to that person. (pp. 68–69 in Börje Langefors, Information and management systems, *Erhvervsøkonomisk tidskrift*, Vol. 50:2, 1986)

[58] In Soft Systems Methodology (Checkland and Scholes 1990) an important part of the analysis is to understand the values according to which people judge their own and others' role performance.

[59] Wendy Briner, Michael Geddes, and Colin Hastings, Projektledaren, (Swedish translation) SvD Förlag 1991, p. 109, (English title *Project Leadership*, Gower 1990)

a set of business activities,[60] or about a set of principles of management accounting and control which relate to these business activities, are shaped by the perspective this person has. In terms of the infological equation the perspective could be viewed as that portion of the entire S that a person utilises when considering a specific topic. This interpreting system consists, as any system, of parts *and relationships between the parts*. Returning to the definition of perspective in the Random House dictionary as "a broad view of events or ideas in their true nature and relationships" I want to stress the notion of the perspective as taking relationships into account. The looking glass is not an assorted collection of values, previous experience, and perception of the situation; the parts are related to each other and the person's perception of relationships is an important ingredient in his perspective.

The existence of events or ideas "in their true nature and relationships" could be questioned from an ontological standpoint. Is there such a thing as a factual reality? My standpoint is that our conceptions of reality are mostly, or maybe even totally, social constructions.[61] 'Truth' or 'fact' then refers to an intersubjective reality; aspects that all (or at least most) actors in a group or society would hold to be true. If all workers in an assembly unit can agree on a description of the work they perform as being accurate, and this description is also acceptable to the foremen, then for practical purposes it would make sense to talk of this description as factual *in that group*. A complication is that what is viewed as 'facts' in one group may not be viewed as facts in another.

This intersubjective definition of knowledge implies that although the accumulated experience and knowledge (the S in the infological equation) is unique for each individual, there is sufficient overlap between portions of the S's of individuals in a group that makes communication and sharing of knowledge possible. Boland and Tenkasi[62] use the term 'communities of knowing' when they discuss groups that have developed specialised

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[60] Activity is a term used in process design literature to denote the identifiable components of a business process. See for example Thomas H Davenport and James E Short, The new industrial engineering: Information Technology and Business Process Redesign, *Sloan Management Review*, Summer 1990.

[61] This is in line with the standpoint taken in Peter Berger and Thomas Luckman, *The Social Construction of Reality*, Anchor Books, 1989 (first published in 1966).

[62] Richard Boland and Ramakrishnan Tenkasi, *Perspective Making and Perspective Taking in Communities of Knowing*, unpublished manuscript, 1994. A revised version has been published in Organization Science, July–August 1995, Vol. 6, No. 4. pp. 350–372.

conventions that support communication within the group. The shared way of viewing the world exhibited by members of the group they term perspective. In terms of the infological equation the perspective of the group is based on a sharing of certain portions of S and mutually established norms for i, the interpretation process. The norms may be changed and refined over time, but at any given point in time they determine how facts will be interpreted as well as which facts are at all regarded as relevant and worth observing in a specific situation. This social construction of notions of validity is also discussed by Heimer,[63] who observed that when actors were not unanimous in their evaluation of expert consulting firms, tradition and bargaining power played a perhaps greater role than evaluation of technical expertise in determining which firm to use as a source of information.

Developing a shared frame of reference that makes communication possible within a group is termed perspective making by Boland and Tenkasi. It is described as a language game where the rules of the game are made up along the way by the participators. The shared perspective is the basis for knowledge work, and Boland and Tenkasi state that knowledge work in a group is an elaboration of the community's perspective.[64]

The development of principles of management accounting and control is an example of knowledge work, and can be viewed as a kind of language game. The use of management accounting to affect the behaviour and operations in an organisation is an ongoing act of perspective making where those who participate try to interpret the accounting and develop shared understandings of how the accounting relates to the business operations.

There is probably some basic common perspective on the meaning of the accounting among those who come in contact with it, but there are also probably different communities of knowing, each with a greater shared perspective within the community than the perspective shared between communities. Accountants and production managers probably both have an idea of what the accounting represents and how it relates to the business, but among accountants or among production managers the interpretation of a specific piece of accounting information is likely to be more similar than it would in a collection of individuals where some are

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[63] p. 19 and p. 207 ff. in Arthur L Stinchcombe and Carol A Heimer (1985) *Organization Theory and Project Management*, Norwegian University Press

[64] Op. cit. p.14

accountants and some are production managers[65] (Figure 3.13). The similarities in perspective developed among for example accountants facilitates communication within the group (the centre of knowing) but at the same time communication between groups is restricted by the differences between the groups' perspectives.
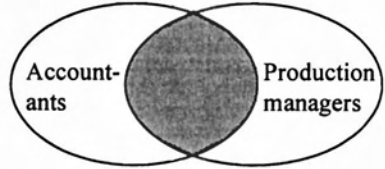
Figure 3.13 Shared perspectives

For a person wishing to communicate with someone in a different community of knowing, there is a need to develop an understanding for the shared perspective in that group, or to restrict the dialogue to the aspects that relate to the portions of the perspective that the person and the other group already share. Lundeberg advances a similar view based on communication between individuals. He focuses on the steps in developing a shared perspective, stating that a first step is to understand your own perspective, the basis for how you perceive and interpret the world. Then it is possible to try to understand someone else's perspective and try to see the world through his eyes. The highest level of ambition would be to try together with others to develop a combined perspective to perceive the world from and to base discussions on. This line of reasoning, the perspectives staircase, is illustrated in Figure 3.14.
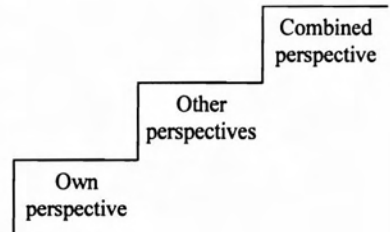
Figure 3.14 The perspectives staircase (from Lundeberg 1993)

Ormerod[66] suggests that an important distinction between 'soft' systems thinking and a positivist approach is that methods building on 'soft' thinking recognise that there are actors with different points of view. The actors each have their interpretation of reality, and agreement to act

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[65] The idea of similarities and differences in views is supported by empirical research by Dent (1991), who found 'clusters' of perspectives that differed according to functional role and hierarchical position (as well as over time). (p. 712 in Jeremy F Dent, Accounting and organisational cultures: a field study of the emergence of a new organisational reality, *Accounting, Organisations and Society*, 1991, pp. 705–732)

[66] p. 280 in Richard Ormerod, Putting Soft OR Methods to Work: Information Systems Strategy Development at Sainsbury's, *Journal of the Operational Research Society* (1995) 46, 277–293

depends on negotiations between actors. I suggested above that listening to a person, understanding what he means, and understanding what makes him say what he says could be viewed as different levels of ambition in paying attention to someone else's perspective. Being unaware of potential differences in perspective, or not being interested in them, can lead a person to neglect the issue of perspectives and act as if there were only one way of viewing the world. In such a case it would be natural to seek input without questioning if what is sent reflects what is meant. It may even be natural to focus on descriptions without even looking for opinions. In terms of the perspectives staircase it is not obvious that even step one has been consciously entered. (Everyone has a perspective of their own, but having a perspective is not synonymous with being aware of what that perspective is.) The description from one person may then be viewed by the project manager as a 'fact' with universal applicability, rather than as one subjective account that may differ from what someone holding a different perspective sees.

A project manager who could be characterised as displaying soft systems thinking would probably behave differently, at least being interested in opinions about the business activities and the principles of management accounting and control, and not just in descriptions. If he seeks a 'factual' description of the present situation he may talk with a number of persons and try to ascertain that he understands what they mean. Focusing on opinions about the present or the future he may address the same people or others. He may also want to go beyond opinions. Regarding a potential ally or adversary the most critical piece of information may be his goals. To ensure fruitful co-operation with someone who is to be an actor in the process, it may be of greatest value to the project manager to understand that person's way of thinking and values.

There is reason to believe that the fuller a picture the project manager can develop of another person, the better his chances are of co-operating with, pleasing, or coming to terms with him. Changing someone's values and basic beliefs (which will change his perspective) is difficult and perhaps even impossible. It may also be argued that it is unethical. Changing someone else's views (a less fundamental change in the perspective) is often quite possible. In fact, it is a task facing many project managers who need to overcome disbelief or resistance. Understanding not only the present views of that person, but also more deeply held values and beliefs would probably be required to successfully influence his views.

Developing a full picture takes time and effort, and to complete a project with limited resources the project manager will have to choose, deliberately or unintentionally, how to handle the seeking of other people's perspectives.

The discussion above has bearing on detailing the 'what'-aspect of communication. I claim that all statements are coloured by the perspective of the person who made them. I suggested above that the project manager can have different levels of ambition in seeking to understand someone else's perspective, from looking for descriptions of 'what is', taking them as rather factual, via seeing descriptions and other statements as subjective, and then looking for more and more of what helped shape these statements. In the context of management accounting and control projects the 'What' aspect of the communication could then be thought of in terms of how deeply the project manager is trying to understand the way the other person views the business activities and the role of the principles of management accounting and control in relation to the business activities and himself. I will return to the idea of levels of the 'What' aspect later on in this chapter, and now turn to the 'how' aspect.

3.2.3 How are perspectives sought, received and handled?

In the previous section I suggested that listening to a person, understanding what he means, and understanding what makes him say what he says, could be viewed as different levels of ambition in paying attention to someone else's perspective. Seeking someone else's perspective could then be at any of these levels of ambition. In this section I begin by discussing the match between the perspectives desired and received by the project manager and others. I then go on to discuss potential consequences of different genres of communication and levels of ambition in seeking other people's perspectives. The section ends with a contingency model of appropriate modes of management style given the type of intended change and the starting conditions from which this change is to be brought about.

3.2.3.1 Seeking and receiving perspectives

The heading of section 3.2.3 reads 'How are perspectives sought, received and handled'. I started out with only the first part, mainly thinking about seeking perspectives; about the project manager trying to understand the environment in which he acts. The problem is then one of seeking relevant perspectives and being able to receive and understand them. This view of perspectives management is depicted in Figure 3.15. The project manager or the project group seek certain perspectives, and may or may not receive them. It is also possible that they receive perspectives they have not sought, but others care to volunteer. So far the picture seems rather uncompli-cated; if the project group seeks a cer-tain perspective and a person holding that perspective volunteers it, there is a match.
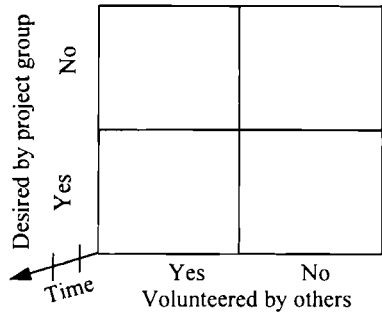
Figure 3.15 Perspectives desired by the project manager

However, the situation is complicated if time is taken into consideration. The perspective may be sought at one point in time and received at another. It may then be as problematic to have someone volunteer their perspective before one sees the relevance of seeking it, as it is if someone volunteers their perspective at a later date than when it was sought. If it comes too early it is not obvious that the project manager notices it or understands it. If it comes late it may be too late to affect critical choices in the development of the system of management accounting and control or its implementation.

3.2.3.2 Perceiving perspectives and sending

After some interviews it began to become obvious to me that a picture mirroring the view of Figure 3.15 was at least as important for the success of management accounting and control projects. This may be mentioned in project management handbooks, but it is not a major theme there. Ran-dolph and Posner[67] suggest that one of the ten most important principles

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67 What Every Manager Needs to Know about Project Management, Alan Randolph and Barry Posner, *Sloan Management Review*, Summer 1988 pp. 65–73

in managing projects is to keep everyone connected with the project informed. They see effective communication as the problem, but they do not even mention the problem of finding out who believes that he is or should be connected with the project. Taylor and Watling[68] could be read as indicating this problem: "People will, of course, communicate if they want something and know where to get it; what is more difficult is the type of communication by which people are kept informed. This has to happen especially with project management, because there will be constant dangers of cutting across company lines of communication. If this occurs and there is also a lack of communication, friction will result. There is a mixture of annoyance, fright and frustration. Annoyance by being ignored; fright because if it happens too many times the job is eroded; frustration at not being in the centre of the action."[69]

Figure 3.16 shows a change in focus from input to the project group (Figure 3.15) to what others want to know from the project group. If people in the project group do not volunteer perspectives sought by others, or do so with a timing that is not synchronised with the demand, the project results may be adversely affected even if the project team has listened to and understood the perspectives held by people outside the project group.
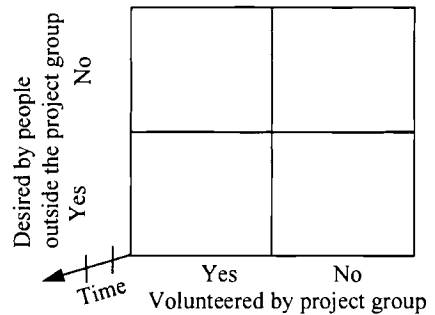
Figure 3.16 Project group perspectives desired by others

In the Yes/Yes and No/No corners of the figure, sending by the project group matches what others would like to hear about. The quotation from Taylor and Watling above illustrates the Yes/No corner (bottom right), what people outside the project group would have wanted to know, but did not know how to obtain, and that the project group did not volunteer. The No/Yes corner (top left) could be a result of misjudgement from the project management, but it could also be

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68 W J Taylor and T F Watling, *Successful project management*, Business Books Limited, London, 1970

69 Ibid. p. 107 ff.

intended. Taylor and Watling, and Briner et al.[70] among others suggest that it is important for the project manager to direct the attention of other managers toward the project and to influence their picture of the project. Taylor and Watling suggest that it is especially important to keep management and top management informed of the progress in terms tailored to each level – they should receive presentations that they have no problem in understanding and that are relevant to them. If this communication is an example of the No/Yes (top left) corner it is understandable that the well tailored presentation conveying the intended information with low requirements on time and interpretation effort on the part of the receiver[71] is even more important than if it were in the Yes/Yes corner (bottom left).

3.2.3.3 **Manner of communication**

Yates and Orlikowski (1992)[72] discuss how genres of communication are shaped through a process of structuration. Drawing on this idea it could be expected that a project manager brings ideas of how communication should be carried out, and that ways of communicating are formed and used during the project by the stakeholders involved in the project, but strongly based on genres existing in the organisation and focused according to the preferences of the project manager. A project manager striving to be a detached analyst could be expected to choose more formal genres, such as that of the planned interview for information gathering and the report or the information meeting for information dissemination. A project manager viewing his role more as a facilitator in a group process could be expected to use informal discussions to a greater degree to promote dialogue rather than mainly unidirectional sending.

Pinto and Pinto (1990)[73] find that project teams with a high degree of cross functional co-operation used informal means of communication, such as telephone conversations and informal discussions, to a greater extent than low co-operation teams, especially for task related exchanges.

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[70] Wendy Briner, Michael Geddes and Colin Hastings, Projektledaren, (Swedish translation) SvD Förlag 1991, p. 109, (English title *Project Leadership*, Gower 1990)

[71] Compare with the infologial equation, p. 54

[72] Joanne Yates and Wanda J Orlikowski, Genres of organizational communication: a structurational approach to studying communication and media, *Academy of Management Review*, 1992, 299–326

[73] Mary Beth Pinto and Jeffrey K Pinto, Project team communication and cross-functional cooperation in new program development, *Journal of Product Innovation Management* 1990, 200–212

Low co-operation teams mainly used informal means of communication for conflict resolution. The high co-operation teams achieved better results on task as well as on a psychosocial level. This could suggest that informal means of communication match cross-functional co-operation better than more formal communication, and that there need not be a conflict between task results and psychosocial results. An informal, high co-operation approach to communication could possibly lead to successful results in management accounting projects too since they often affect more than one functional area in an organisation.

Productive co-operation is not a mechanical result of cross-functional groups. Kylén cites a Swedish public investigation from 1991[74] of the effects of worker participation that draws the conclusion that much formal co-operation which has little impact on results is taking place. This may not be surprising. Pinto and Pinto note that trust between the individuals is important for the establishment of a climate in which informal communication works well. Trust builds on reciprocity. Communication, paying heed to what others want to know (Figure 3.16) as well as what you want to know, (Figure 3.15) is then important. Are project managers in management accounting projects engaging in bi-directional communication or do they primarily rely on more unidirectional genres of communication?

3.2.3.4 Level of ambition in seeking perspectives

Studying the use of formal analyses, Langley (1989)[75] distinguishes between different levels of ambition in report construction. The lowest level of ambition (armchair study) is a short report based on little data. The highest (major report) is an extensive report based on large quantities of data and employing multiple research methods. I attempt an analogous classification of how the project manager tries to perceive and handle someone else's perspective. A lowest level of ambition would be reflection (see

Contact

Intermediaries

Reflection
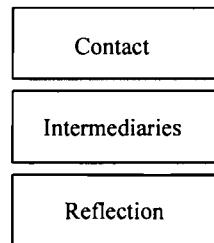
Figure 3.17 Degree of search

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[74] P. 42 in Sven Kylén, *Arbetsgrupper med utvecklings- och förandringsuppdrag - från defensiva till offensiva rutiner!,* The Institution of Psychology, University of Gothenburg, 1993, (English translation of title "Groups commissioned with development and change tasks")

[75] P. 601 in Ann Langley, In search of rationality: the purposes behind the use of formal analysis in organizations, *Administrative Science Quarterly*, 1989, 598–631.

Figure 3.17); the project manager bases his opinion of the other person's perspective without searching further input. A next level of ambition could be the use of an intermediary; asking someone with whom the project manager has already established contact (or finds it easy to establish contact with) or relying on an intermediary to spread his messages. This could quickly provide the project manager with input on other people's perspectives, although the quality of this input may be less accurate than that obtained through direct contact with the person whose perspective the project manager seeks. Regarding sending, relying on an intermediary would save the project manager's time, but would give him less control over the dissemination of his messages than if he has direct contact with the stakeholder. Relating this to the discussion in the previous section, only direct contact, the highest level of ambition, provides the basis for building trust, a potentially important aspect of perspectives management.

3.2.3.5 The change setting and handling perspectives

How a change is handled is probably to some extent dependent on the circumstances. Dunphy and Stace (1988)[76] propose a classification of change according to how radical it is and what management or leadership style is used. The four classes, participative evolution (upper left quarter of Figure 3.18), charismatic transformation (upper right quarter), forced evolution (lower left quarter) and dictatorial transformation (lower right quarter), each have their applicability according to the authors. The main variables affecting the proper choice of strategy, given the magnitude of intended change, is time available and support for change in the organisation. If there is support in the organisation, it is possible to stay in the upper half of the figure. If not, the change requires directive or coercive leadership to be successfully brought about. Regarding the scale of change, the main line is drawn between instances where incremental change is possible and the occasions when more revolutionary changes are intended.

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[76] Dexter C Dunphy and Doug A Stace, Transformational and coercive strategies for planned organizational change: beyond the OD model, *Organization studies*. 1988, Vol. 9 No 3, pp. 317–334 and seminar at the Stockholm School of Economics 921012

Scale of change

Management/ Leadership style:	Fine tuning	Incremental adjustment	Modular trans- formation	Corporate trans- formation
Collaborative	Use when organisation is out of fit but needs minor adjustment, or is out of fit and key interest groups favour change		Use when organisation is out of fit, when there is little time for extensive participation but there is support for radical change within the organisation	
Consultative				
Directive	Use when organisation is in fit but needs minor ad- justment, or is out of fit but time is available, but key interest groups oppose change		Use when organisation is out of fit, when there is no time for extensive participation and no support for radical change, but radical change is vital to organsational survival and fulfilment of basic mission	
Coercive				

Figure 3.18 Typology of change strategies and conditions for their use

I expect the style chosen to strongly influence the seeking of other people's perspectives. The further 'down' the scale, (towards coercive) the more information-gathering driven and the more limited will the seeking of perspectives among 'A: actors' and 'C: customers' be – and the more commitment-centred will the contacts with 'O: owners' and principals be.

The further up in the figure, the more important a role could be expected to be played by the information users in a management accounting and control project. There is a large body of writing on user participation. In the next section (3.2.4) I turn to this literature, exploring the topic of user participation in more detail. Users are an important group in the life of an information system. In relation to the development of principles of man-agement accounting and control they could typically be regarded as 'Customers', and possibly 'Owners', but do not necessarily become 'Actors' in either the development of the principles or in the subsequent development of an information system. User participation literature focuses on when 'Customers' are also 'Actors' and studies the effects of degrees of combinations of these roles. It thus has bearing on the 'How' aspect as well as on 'consequences'. Before turning to it I will briefly summarise what has been said concerning 'How' so far.

One way of thinking about 'How' is in terms of input, output, and the balance between them. Is the project manager focusing on obtaining input? Does he give due consideration to output, to sending? The balance between input and output can be thought of in terms of sender and

receiver perspectives. Is there a match between what the receiver desires and what the sender volunteers? This applies to the project manager in the sending as well as in the receiving role. A related topic is that of manner of communication; formal, rational, goal-directed communication versus informal discussions. A third notion is how direct the search for input or the sending of output is. I suggested a three-level model consisting of reflection, contact with intermediaries, and direct contact. Reflection is based on the knowledge and opinions the project manager already has concerning the stakeholder. 'Contact with intermediaries' involves getting additional input or transmitting output, but not through direct contact with the stakeholder himself. 'Direct contact' signifies contact with the actual stakeholder. Researchers discussing manner of communication proposed that the choice of 'how' is shaped by personal preferences and habits in the organisation. To conclude the section, I noted that there is research that rather implies that the project managers' choice of 'How' ought to be influenced by such factors as the scale of the proposed change, the time available, and the support for the change in the organisation.

3.2.4 Form and content of user participation

The successful use of a system in an organisation will to a large extent depend on the users, on their knowledge of the system, their attitudes towards it and the degree to which it matches their perception of the operations it is to support. For the manager of a management accounting and control project, communication with those who will be the users of the principles developed could thus be expected to be important. Participation in the project is one way of becoming a part in the project manager's pattern of communication.

There has been considerable debate over the topic of user participation: when user participation is desirable and what form it should take to be beneficial. For some, user participation is a matter of faith – user participation is desirable and the more the better. The empirical question then boils down to mapping existing patterns of user participation, and the normative question how user participation can be furthered. For others the effects of user participation is an open question; it could be desirable or detrimental to system success.

In this section I discuss how researchers have viewed the form and content of user participation. From this discussion I derive an idea of definitions of terms that could lend stringency to the discussion I am conducting.

3.2.4.1 Project/user interaction

McFarlan[77] believes that the value of user participation varies between projects. He suggests that projects should be managed in different ways depending on their level of task structure and technological complexity and proposes four categories of project management tools.[78] He claims that the interaction with users is crucial in projects with a low degree of structure (regardless of the technological level of the proposed system), but unimportant if the degree of structure is high. (High structure implies that the outputs are well defined by the nature of the task. Low structure denotes the opposite.) The high-low complexity argument could be debated. Much evidence points to the emotional importance of participation, which would be valid even in cases that could be considered as highly structured. There is, however, support to be found for the proposition that user participation in projects becomes *more* important with increasing complexity.

The McFarlan category 'External integration tools', contains suggestions on how to ensure that the project produces outcomes that are in line with actual needs in the organisation. Out of the ten suggestions, nine items relate explicitly to project/user interaction and one (progress reports) concerns the relation between the project team and the corporate steering committee who may or may not be conceived as users. I would classify the project/user interaction items as tools for catching user perspectives in the project.

The table below lists McFarlan's ten external integration tools[79] with my classifications of what integration mechanism the tool is tapping and

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[77] Warren McFarlan, Portfolio approach to information systems, *Journal of systems management*, Jan 1982, pp. 12–19 (An updated version of the article appears as a chapter (A portfolio approach to IT development) in J Cash, W McFarlan, J McKenney, L Appelgate, *Corporate information systems management*, Irwin, 1992, pp. 418–434.)

[78] The four categories are external integration tools (relation between project and the rest of the organisation), internal integration devices (relations within the project group), formal planning tools, and formal results-control mechanisms.

[79] This list is not substantially changed between the 1982 and the 1992 editions of the paper.

what role the tool puts the users in: owners, actors, or customers of the change.

External integration tools	integration mechanism	role of users
1. Selection of user as project manager	organisation and control	actor
2. Creation of user steering committee	organisation and control	owner
3. Frequent in-depth meetings of user steering committee	process	owner/actor
4. User-managed change control process	process	owner/actor
5. Frequent and detailed distribution of project team minutes to key users	information to	customer
6. Selection of users as team members	organisation	actor
7. Formal user specification approval process	process	customer
8. Progress reports prepared for corporate steering committee	information to	*Managers as owners. This item does not necessarily relate to users.*
9. Users responsible for education and installation of system	control	actor
10. User management decision on key action dates	control, process	customer

Three of the tools (1, 2, and 6) refer to *the organisation of the project*: users are enlisted as members in the formal project organisation; as project leaders or as members of the steering committee or the project team. Being a member of the project organisation does not automatically confer control over the project on the user; a member of the steering committee or of the project team could influence the project, but could also be a hostage or a mere symbol with no actual power.

A number of tools (3, 4, 7, and 10) specify *process steps* (committee meetings, control process, approval process and key action date schedule).

Of the remaining three tools two specifically deal with *information from the project group* [to users (5) and to higher managers (8)].

The remaining item (9) is giving the users responsibility for (and presumably control over) the education and installation. *Control* is also a

topic in three other items, where in the first two (1 and 2) control is a probable result of occupying specific positions in the project organisation, while the last one (10) is the specific and limited control of deciding on timing.

In terms of the roles Actor, Customer, and Owner some items involve the users as actors in the change process (1, 6, 9 and possibly 3 and 4). Some items attempt to put the users in an owner role (2, 3, and 4) while some items leave the users in a customer role that demands little action from them and where their influence over the process seems rather limited (5, 7, 8?, and 10).

3.2.4.2 Type of participation, and influence over the process

In information systems research much interest has been directed at the role of users (the customers of the information system) in the development and implementation of information systems. To what degree are users participating, and is user participation desirable?

Mumford[80] notes three types of involvement: consultative, representative, and consensus. When users are involved in a consultative mode they are consulted, but do not make the decisions. Representative involvement means that user representatives participate in the design process. Mumford's label 'consensus' is reserved for development processes where an effort is made to involve *all* users, the users make the decisions, and assume full responsibility for their implementation. Hirschheim,[81] discussing *participative systems design*, wants to reserve that concept for approaches where the users have a substantial influence over the process. According to this view consensus and representative approaches are clearly examples of participative systems design, whereas consultative approaches would mostly involve the users to such a small extent that it could not be regarded as participative systems design. Ives and Olson[82] suggest categories of increasing degrees of user involvement from no involvement to strong control without passing judgement on what should be regarded as true participation.

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80 Enid Mumford, Participative systems design: structure and method, *Systems, Objectives, Solutions*, 1981, Vol.1:1 5–19

81 Rudy Hirschheim, User Experience with and Assessment of Participative Systems Design, *MIS Quarterly* 1985 Vol. 9:4 295–304

82 Blake Ives and Margrethe Olson, User involvement and MIS success: a review of research, *Management Science* 1984 30:5, 586–603

These categories are:

No involvement
Symbolic involvement
Involvement by advice
Involvement by weak control
Involvement by doing
Involvement by strong control[83]

They propose that Mumford's classes refer to *type* of participation, where consensus designates the most direct form of participation and consultative the least direct. In contrast, they view their own scale from 'No involvement' to 'Involvement by strong control' as representing the *influence* the user has over the final product. I do not agree that the two classifications are clearly distinct from one another. To some extent they both represent a mix of type and influence. As Hirschheim notes, representative and consensus imply more influence over the process than does consultative participation. Thus Mumford's classification is not devoid of an influence dimension. Similarly 'advice' and 'doing' in the Ives and Olson classification are examples of 'type', although possibly representing different levels of influence.

Returning for a moment to the list of tools proposed by McFarlan discussed above (p. 68), we can note that they are intended to provide user influence over the product developed, but that they are mainly expressed in terms of type of involvement. The actual influence the implementation of a specific item confers on users is contingent on the situation, such as the intent of the project owner(s) and the knowledge and personality of the user in question.

I do, however, believe that type and influence are two dimensions that are relevant to consider when studying the role a stakeholder plays in a development process. By *stakeholder* I mean any stakeholder, not just users. At the end of this section (3.2.4) I suggest a classification of type of participation and level of influence or control, which I view as additional ways of specifying the 'How'-aspect of seeking and handling other people's perspectives. But first I turn to the clarification of some concepts.

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[83] Ives and Olson 1984 p. 590

3.2.4.3 Participation and involvement

In 1989 Barki and Hartwick[84] published an article where they object to the way the words *involvement* and *participation* are used – often interchangeably. They propose that participation should be used to signify activities or behaviours in the development process, while involvement should refer to a subjective psychological state reflecting the importance and personal relevance of a system to a person. Barki and Hartwick argued that this interpretation of *involvement* would be consistent with how that term is used in the fields of psychology, marketing, and organisational behaviour. In line with this distinction both Mumford and Ives and Olsen could be viewed as classifying participation, not involvement. Involvement, as defined by Barki and Hartwick, could be expected to result from participation, or lead to a wish for participation. I find the distinction they make between participation and involvement useful, and will adhere to it in my text. I now concentrate on participation.

3.2.4.4 Measuring participation

Different researchers have used different instruments when measuring participation. Recently Barki and Hartwick[85] attempted to develop a standardised instrument based on the different instruments used in three often cited articles. The instrument was tested using questionnaires to users of business oriented information systems developed in-house in large organisations. Factor analysis of the answers demonstrated that there were three dimensions within the construct participation: development related responsibility, user-IS relationship and user hands-on activity. In answers given by users previous to information systems development, hands-on activity showed up as one factor, but in answers given when the information systems had been in operation for some months the hands-on activities showed up as two distinct factors: development activities and implementation activities. (This indicates that distinguishing the 'When' aspect, as I do when talking of phases, is meaningful.) The items in the instrument developed by Barki and Hartwick are the following:

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[84] Henri Barki and Jon Hartwick, Rethinking the concept of user involvement, *MIS Quarterly* 1989 Vol. 13:1 pp. 53–63

[85] Henri Barki and Jon Hartwick, Measuring User Participation, User Involvement, and User Attitude, *MIS Quarterly* 1994 Vol. 18:1 pp. 59–82

User-IS relationship

- I evaluated an information requirements analysis developed by Information Systems/Data Processing.
- I formally approved work done by Information Systems/Data Processing staff.
- I approved an information requirements analysis developed by Information Systems/Data Processing.
- I formally reviewed work done by Information Systems/Data Processing staff.
- I was able to make changes to the formalised agreement of work to be done.
- Information Systems/Data Processing staff drew up a formalised agreement of the work to be done.
- The Information Systems/Data Processing staff kept me informed concerning progress and/or problems.
- I signed off a formalised agreement of the work done by the Information Systems/Data Processing staff.

Responsibility

- Did you have responsibility for selecting the hardware and/or software needed for the new system?
- Did you have responsibility for estimating development costs of the new system?
- I had main responsibility for the development project.
- Were you the leader of the project team?
- Did you have responsibility for the success of the new system?
- Did you have responsibility for requesting additional funds to cover unforeseen time/cost overruns?

Hands-on activities

- I defined/helped define report formats.
- I defined/helped define screen layouts.
- I defined/helped define input/output forms.
- I created the user procedures manual for this system.
- I designed the user training program for this system.
- I trained other users to use this system.

The items under the heading *User-IS relationship* implicitly refer to a situation where 'IS'-personnel are expected to be the actors in the project. In my research it would be more appropriate to consider the relationship between a stakeholder and the project team without assuming that this project team would be composed of people from the IS function or some other particular function. It may be the case, but it is not a necessity.

The items under the heading *Responsibility* suggest that the important aspects are hardware and software selection, cost estimation and request-

ing additional funding, the development in general and the success of the resulting information system. Responsibility is not viewed in terms of phases such as setting goals, designing the system, building the system and implementing it. The three phases design, construction, and implementation, are included in some items in the questionnaire,[86] but the answers were often averaged to give an overall measure. I find this questionable as the consequences of participating in or having influence over the process during the different phases can be expected to produce different outcomes. The user who has taken an active part in designing a system will probably view this system, with its benefits and faults, as his own invention in a way that a person being introduced to a finished system never will.[87]

The items under *Hands-on activities* fall in two groups: design and implementation. The design items concern the design of input and output, not the logic behind the computations in the system. (The logic could, to some degree, be considered to be covered under the headings *User-IS relationship* and *Responsibility*.) The implementation items focus on instructions and training for the use of the system, and not, for example, on evaluation of how well the information system supports the users. This again seems to be a reflection of an underlying assumption of enlightened IS experts; that it is the IS specialists and not the users who are best suited to judge what information systems support the users need.

The instrument for measuring user participation developed by Barki and Hartwick is to me an example of the lack of distinction in underlying dimensions such as type of participation, level of influence or control, and type of control. In the next section I elaborate on such distinctions.

3.2.4.5 Relationship between type of participation, level of influence or control, and type of control

The discussion so far illustrates that participation is not a neutral word, but rather one which carries associations so strong that researchers have had difficulty in distinguishing between activity and outcome. I feel that

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[86] One of the 'Responsibility'questions, "main responsibility for development project", was represented by three separate questions (main responsibility during design, main responsibility during construction, main responsibility during implementation) but the answers to these three were averaged to give one measure of overall responsibility.

[87] There is empirical support for this notion. See for example p. 95 ff. below.

the following distinctions between a number of terms could be useful in the continued discussion.

Participation in a process refers to how someone partakes in a process. Examples of *type of participation* could be: being kept informed of the development, being consulted, being in a position to approve or reject steps, and being in a position to direct the process.

Involvement in a process refers to the importance and personal relevance of the process (or the expected outcome of the process) a person experiences. It is quite possible to be highly involved (emotionally) without participating or being allowed to participate. It is even possible to envisage how the involvement can increase *because* participation is blocked. On the other hand, it is possible that participation fosters involvement. Cialdini[88] provides a large number of examples of how people align their beliefs, views and feelings with their actions. Especially actions and statements one has made publicly, without being obviously forced, tend to generate a change of beliefs and views so that they become consistent with the actions and statements.

Influence over a process refers to the impact a person has on it. Influence may stem from participation, but participation does not ensure influence, and influence does not require participation. It is quite possible to envisage how someone can have influence over a process without participating, just as great men and women exert influence over actions of people they have never met. Influence without participation is, however, influence without control. If the process starts moving in a direction that a person disapproves of, he will need to participate in it somehow in order to sway the course of the process.

Control over a process refers to the ability a person has to direct a process. Control can be exerted reactively or proactively, but it presupposes participation of some sort – either as decision maker detached from the actual work but in a position to decide over it, or as actor involved in the actual work.

Control and influence could often coincide. It may not be important to a person if he has influence or control, as long as he is satisfied with the end result. Noticing that the development is moving in an unwanted direction and not being able to influence or control it would probably make him feel dissatisfied. I use *Level of influence or control* to denote the degree to

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88 Chapter 3 in Robert Cialdini, *Influence : science and practice*, HarperCollins, 1993, 3rd ed.

which a person can expect to influence the course of a development as a matter of his choice. The person who is consulted can expect that he has more influence on the development than if he had not been consulted, but he does not directly control the degree of influence that he has. A person who is only informed of the development can be expected to have less influence on the process, while a person who directs it has considerably more control over the influence he has on the development.

Type of control could be used to refer to the possibility a person has of influencing the process on a reactive or proactive basis. The person who directs a process has the option to influence it proactively, while those who are kept informed, who are consulted, or are asked to approve steps are confined to reactive control if any. 'Reactive' then refers to being in a position to control the development afterwards: to say no to a plan someone has made, but not make the plan, or object to an action that has been taken, but not direct the action. A person with the authority to do so may, however, change from a reactive type of control to a proactive if he is not pleased with the development, by moving into a directive type of participation.

When I compare the items in the Barki and Hartwick instrument (described above) with the dimensions *type of participation* and *level of influence or control,* I note that all questions refer to influence or control, but that the groupings are not clearly related to a scale from low to high influence.

Many items can also be regarded as reflecting type of participation. The items under 'hands-on activities' and 'responsibility' all suggest rather active forms of participation while the items under 'user-IS relationship' vary. "Information Systems/Data Processing staff drew up a formalised agreement of the work to be done" is indeterminate; it is an example of the user not having influence over the decision and not being a direct actor in the work performed, but in this specific instance the work is planning. In the planning the user has then had no participation. His role regarding the decision to adopt the plan could range from 'no participation' to 'approve', and his role in executing the plan is unknown. It is possible that the plan specifies considerable user participation in the actual development process. "I was able to make changes to the formalised agreement of work to be done" is an example of user participation in the *planning* activity (although at a late stage), but the changes could be towards more user participation in the actual development or towards less user participation. "I evaluated an information requirements analysis developed by

Information Systems/Data Processing" is an example of a user participating by being consulted.

I summarise this discussion in the table below. I distinguish between the three concepts 'type of participation', 'level of influence or control' and 'type of control'. These three concepts form the headings of the columns in the table. In the columns I then give examples of 'values' they may take. ('Kept informed' is an example of a type of participation, 'high influence or control' an example of level of influence or control, etc.) The table also expresses connections I suggest exist between the three concepts. For example, I suggest that participating by being kept informed of the development represents a very low level of influence or control over the process, and that the type of control that can be exercised by someone who only participates by being kept informed is reactive. In the table the only type of participation that gives the participant a proactive type of control is when the person directs the development. If a person being kept informed disagrees with the way the process is being conducted he can only protest after the fact. If he wishes to proactively make certain that his ideas guide the project he will have to change the type of participation, from being kept informed to directing the process.

I propose a scale of type of participation (from 'no participation' to 'direct') ordered by the level of influence or control the participant can expect to be able to exert through his participation (from 'no influence or control' to 'high influence or control').

Type of participation	Level of influence or control	Type of control
no participation	no influence or control	
kept informed	very low influence or control	reactive
evaluate (consulted, but not deciding)	low influence or control	reactive
approve	medium influence or control	reactive
direct	high influence or control	proactive

This scale could be used to study the level of influence or control that the project manager extends to others by including them in his pattern of communication through different types of participation in the projects. I thus propose it as a complement to the detailing of the 'How' aspect in my study.

3.3 Consequences of the way of perceiving and handling perspectives

A project manager can attend to other people's perspectives by seeking information, listening to others, or sending. He can let others participate or try to make them participate, and he can restrict the participation of others. The way he does this will have consequences. In this section I look at what consequences I can derive from the literature, concluding by deriving a framework for discussing consequences of the way in which the project managers in management accounting and control projects handled stakeholders' perspectives.

I start briefly with a picture from change process management and project management literature of problems in establishing a well functioning communication. Attention or inattention to perspectives of stakeholders is, to a large extent, a matter of communication. This communication (or lack of it) may influence the tangible result of a project, but there are also results in the form of stakeholders' reactions to how the process was conducted, psychosocial outcomes.

From there I move over to literature specifically discussing development of management accounting and control, noting how it discusses the topic of subjective views of the management accounting and control systems. Principles of management accounting and control are proposed as important in shaping the picture of the business operations by directing attention, and thus distinguishing between what are to be viewed as important aspects and what are unimportant. It is also suggested that an important consequence of changes in principles of management accounting and control is that it changes the power structure in the organisation, and that such changes are often not subject to explicit discussion. They are maybe even not explicitly recognised by those designing the principles.

Considering the information systems aspect of management accounting and control I then turn to information systems development literature. As a starting point for the discussion of consequences I look at information system success. Success can be defined in different ways depending on how narrowly or how widely one defines the limits of the system studied. When including the information system in its social context, user satisfaction plays a prominent part in discussions of system success. In the previous section I arrived at a description of the communication between

developers and stakeholders in terms of type of participation. In this section I next turn to the discussion of consequences of participation that can be found in the information systems development literature.

Can a project manager expect that the potential information users will take the initiative to start a dialogue with him? Are they at all likely to perceive management accounting and control as important? A brief look at management accounting literature and my own previous research in the area indicates that although people in the accounting function are likely to show the largest interest in the topic, there is a potential interest from many other stakeholders as well. It seems plausible, however, that the initiative for a contact will rest with the project manager.

I then conclude the section on consequences of the way of perceiving and handling perspectives, with identifying a three-factor framework for discussing consequences in terms of their contribution to aspects of success of the resulting system. 'Success of the resulting system' then refers to principles of management accounting and control that are actually used to advantage in the business operations.

3.3.1 Differences in perspectives and the consequences for the process of not being attentive to the differences

Argyris proposes that there is often a difference between how people believe they reason and the logic which actually guides their behaviour.[89] While people may espouse values of openness and learning, he claims that most people actually behave in a way which is inconsistent with these values and is likely to result in defensiveness and misunderstandings, and which prevents learning.[90] Lundeberg stresses the usefulness of the information gathering aspect of seeking perspectives: "The better you are able to perceive reality, the better you are prepared to act".[91] Listening to

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[89] Argyris calls these 'espoused theory' and 'theory-in-use'. See e. g. Chris Argyris, *Knowledge for action: a guide to overcoming barriers to organizational change*, Jossey-Bass, 1993

[90] Ibid. p. 52 ff.

[91] Mats Lundeberg, *Handling Change Processes; A Systems Approach*, Studentlitteratur/Chartwell-Bratt, 1993, p. 1

others open-mindedly can expose flaws in your own thinking.[92] Three typical flaws are deletions and distortions of signals received, and unwarranted generalisations. Seeking perspectives can thus increase the accuracy of the information on the basis of which you plan and act. It may also help you in communicating with others. A person who does not understand how other people think will have difficulty in communicating with them and is liable to trigger unintended negative reactions from them.[93]

Jessen[94] notes that project leaders seem to spend most of their time communicating with others. That they spend much time communicating does not necessarily mean that they communicate effectively. As Jessen notes: "Still the communication aspect of the project is often the most worrying problem."[95] Jessen suggests six areas of potential problems. People have *different frames of reference*. Resulting different interpretations are likely to pose a problem in the communication, but the project manager can try to lessen the actual problem by being attentive to differences in frames of reference. A related problem is that of *semantics*. The use of jargon in a cross-functional project may intimidate and confuse those to whom the jargon is foreign. *Value judgements* of the worth of a sender's message formed before hearing him out is a third potential threat to communication. This is akin to the problems of deletion, distortion and unwarranted generalisation noted by Bandler and Grinder. Jessen's fourth and fifth points, *selective listening* and *filtering* (two examples of deletion) could result from value judgements but could also have other causes. All three (Quick value judgements, selective listening, and filtering) can easily convey a sense to the speaker (or writer) that he is being ignored or disregarded, which in turn may impede future co-operation. The sixth potential problem, *distrust*, could either be a cause or an effect of the preceding five items of the list.

The nature of the problems caused or exacerbated by poor communication could be more or less apparent to the actors. Kylén[96] studied defensive

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[92] Ibid. p. 152 ff.

[93] Richard Bandler and John Grinder, *The structure of magic 1*, Science and Behavior books, Palo Alto, 1975, pp. 14–16

[94] Svein Arne Jessen, *The Nature of Project Leadership*, Scandinavian University Press, 1992

[95] Ibid. p. 229

[96] Sven Kylén, *Arbetsgrupper med utvecklings- och förandringsuppdrag - från defensiva till offensiva rutiner!*, The Institution of Psychology, University of Gothenburg, 1993, (English translation of title "Groups commissioned with development and change tasks")

routines in groups commissioned with development and change tasks and arrived at a distinction with three classes: *defences* that operate on a subconscious level, *resistance* that operates on a preconscious level,[97] and *tactics*, conscious efforts to obstruct the change process. He found a surprising amount of defensive routines in action in the organisations he studied. The method he developed to reduce the level of defensive routines and get people to work more towards the intended goals was to introduce a forum for discussing the defensive actions and their causes and explicitly relate them to the change the group was commissioned to achieve. The method appears similar to that developed in the Dialogue project at MIT.[98] It does not guarantee increased performance, though. In one instance Kylén managed to improve the psychosocial climate in the group without noting *any* task-related improvements.

The examples given above, all point at disturbances that may arise in a change process when too little attention is given to understanding each other and trying to perceive and handle each other's perspective.

3.3.2 Handling perspectives and the effects on person and task project outcome

According to the X-model (Figure 3.19, reproduced from p. 40 above) every process affects person as well as task level. Pinto and Slevin (1988)[99] claim that definitions of implementation success have traditionally focused on task outcomes related to time, budget and performance; that is, an assessment of whether or not the implementation effort achieved the task it set out to achieve (the bottom right box in the X-model). Little attention has been given to the
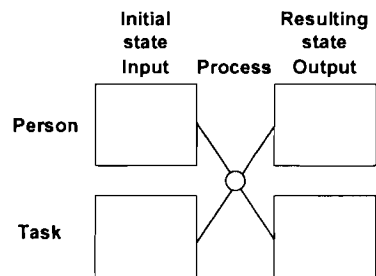
Figure 3.19 The X-model

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[97] *Preconscious* meaning that the person feels troubled by what is happening, but does not know why and does not realise that his actions impede the change process.

[98] See for example William Isaacs, Dialogue, collective thinking, and organizational learning, *Organizational dynamics*, Autumn 1993, volume 22:2, pp. 24–39.

[99] J K Pinto and D P Slevin, Project success: definitions and measurement techniques. *Project Management Journal*, 1988, XIX(1):67–71

process itself and how the individuals involved in implementation feel about the process (psychosocial outcomes – a part of the top right box in the X-model). A connection between project outcome and psychosocial outcome is the extent to which the project alters the degree of privacy and discretion the local actors have.

Management accounting and control projects certainly have a potential for altering the degree of privacy and discretion of local actors. Scapens and Roberts[100] state that "structuration theory focuses attention on the way that the three dimensions of structure, signification, legitimation and domination, are intertwined in an accounting context. By signifying what is important and what is trivial, accounting provides a discourse for the domination structure and legitimacy for particular social actions. Furthermore (...) Giddens' conceptions of 'power to do' and 'power over' can be used to focus on the tensions between the use of accounting as both an enabling device and as a means of achieving hierarchical control." The use of managerial accounting to increase managers' and employees' 'power to do' – to reshape products and business processes based on economic considerations – may not be obvious to those who have viewed managerial accounting and costing as an area reserved for accountants. It is then likely that a local actor, largely left out of a management accounting and control project, will envisage that the project is intended to increase the degree of control exerted by higher managers and central staff.

Non-accountants may not view accounting as an 'enabling device', but it is not apparent that accountants in general do so either. One indication of this is an article by Hopwood that he aims at an accounting audience. An underlying theme in this article (Hopwood 1990)[101] is that accounting *can* be used proactively to change an organisation, and not just to mirror history. He suggests that accounting provides visibility and calculative practice (operationalising concepts such as profit, cost, and efficiency), and, through these, becomes a powerful means for confronting the social and the political with the economic. The patterns of visibility provided by accounting has a political side. What is made visible through accounting, and why? "And which groups have the power to influence the patterns of visibility prevailing in the organisation? What bodies of knowledge and

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[100] P. 3 in Robert Scapens and John Roberts, Accounting and control: a case study of resistance to accounting change, *Management Accounting Research*, 1993, pp. 1–32.

[101] Anthony Hopwood, Accounting and organisation change, *Accounting, Auditing and Accountability Journal*, 1990, Vol:3:1 pp.7–17

sets of organisational practices are involved in making some things visible and other things not? How contested are the dominant patterns of visibility? And from where have new visibilities emerged?"[102]

In his elaboration of the Panopticon, Bentham[103] stresses the two conflicting objectives of providing the overseer with a possibility to inspect, and the individual with some privacy. In Bentham's setting the overseer (whether he is in charge of a penitentiary, a school or a factory) is assumed to be able to discern between appropriate and inappropriate activities, and to be in his right to interrupt what he views as inappropriate activities. In a company of today the people at the top of the hierarchy may still feel that they want to be able to monitor what is going on, but it is far from obvious that they ought to be in command in the sense of Bentham's overseer. They may not be able to judge what is appropriate and inappropriate behaviour at the local level, and too close monitoring may stifle local initiative. There may be legitimate room for local privacy and discretion that is not subject to detailed monitoring by top management.

The project manager can be expected to have a large influence over the design of new management accounting and control principles. During the design I suppose that he can view operationalisations as a technical exercise and duck the political aspects, or try to perceive the perspectives of different stakeholders and try to handle them explicitly,[104] but whichever approach he chooses, the principles developed in the project will have political consequences.

The notion of power aspects of accounting principles is not new and is not proprietary to accountants. In 1983 Markus and Pfeffer[105] discussed the difference between the power distribution consequences of a new accounting and control system and the power distribution in the existing organisation, the organisational paradigm and culture, goal and technology agreement. They suggested that changing the *principles* of accounting

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102 Ibid. p. 9

103 Jeremy Bentham, Panopticon; or, the inspection house, in *The works of Jeremy Bentham, published under the superintendence of his executor, John Bowring* Volume four, 1838–1843, Reprinted by Russell & Russell inc. 1962 (originally published in 1778)

104 Discretion and choice exist in operationalising concepts. According to Hopwood such operationalisations are often adressed by accountants. (Ibid. p. 15)

105 Lynne Markus and Jeffrey Pfeffer, Power and the design and implementation of accounting and control systems, *Accounting, Organizations, and Society*, 8:2/3 pp. 205–218, 1983. Markus had an organisational behaviour perspective on information systems development and use, and Pfeffer specialised on power and politics in management.

and control changes the power balance in an organisation. Changes in power structure set defence activities in action. Changing the information system without changing the principles of accounting and control does not necessarily evoke defence activities.[106] In their conclusion Markus and Pfeffer stressed the importance of the power perspective, saying that processual factors may affect the outcomes, but power is a structure, and structural factors are the determinants of system success. System success is then viewed as a system actually being used. A system that is not used can hardly be considered successful, but success can mean more than just use. In the next section I develop the theme of system success.

3.3.2.1 Aspects of system success

When discussing consequences of choices and actions in systems development projects it may be of interest to look at what is considered as system success. I start with a number of criteria of what to value in an accounting information system, provided by accounting literature, and then turn to concepts of system success taken from the information systems research tradition.

In accounting literature four groups of criteria for evaluating accounting information systems are representational criteria, measurement systems criteria, user criteria, and effect criteria.[107]

Representational criteria concern the correspondence between the object system (the 'reality' described) and the description provided by the accounting. Is the description accurate, and does it capture the important features of the object system?

Measurement systems criteria concern the quality of the process of capturing, transforming, and using the accounting data. Are data verifiable? Are they reasonably free of personal bias? Are the transformations reliable or prone to produce errors? Are data comparable across products, organisational units, and over time?

User criteria refer to how well the measurements and the accounting data produced are adapted to the information users. Are they understandable to the information users? Are they accepted by the users?

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106 Some examples borrowed from Rosemary Stewart showed how computerising accounting without changing principles went smoothly and was not opposed by bank branch managers.

107 Sven-Erik Johansson and Lars Östman, *Accounting theory : integrating behaviour and measurement*, Pitman Publishing, 1995, chapter 3

Effect criteria, finally, concern the effects of using the accounting information system. Does the information provide benefits in decision situations? Does the system provide managers with control (or a sense of control) over the business operations? Does the use or operation of the system affect the individual in a favourable or unfavourable way?

Effect criteria could thus be said to be on a higher level than the other three types of criteria, and the evaluation a person makes along a specific criterion is likely to be influenced by the effects that person perceives. The view of what is important to achieve or avoid, and how the accounting information system may contribute to this, is subjective. Stakeholders may have similar or different views, and may judge the importance of the effects they perceive differently. An accounting system operator or a system owner may view measurement criteria as the most important since an unsatisfactory performance in terms of poor internal consistency, resulting in, for example, inaccurate or inconsistent accounting numbers, is likely to reflect badly on them or provide them with extra work. A local information user may view the ability of the accounting data to reflect the peculiarities of his specific business activities (representational criteria) as the most important, as they would make the accounting information useful to him, or reflect the results of his activities in the way he wants his superiors to perceive them. The superiors (also information users) may in turn value comparability among operational units (also a question of representational criteria) as the most important aspect of the accounting data, and local customisation as a hindrance to comparability, if they value the accounting information as a tool for evaluating the performance of the units, or if they see the existence of a such a possibility as a way of keeping their subordinates' attention on the profitability of the operations. One user with a keen interest in management accounting information may value a detailed description of a business object, while another, with less interest and knowledge in accounting, may view it as unacceptable because it appears too complex to him (user criteria).

I now turn to the concept of information systems success in information systems research.

Keen and Scott Morton (1978)[108] discuss evaluation of decision support system development and suggest a number of dimensions to study to get a rich picture of the degree of success of the development effort, and to encourage learning from experience. These dimensions are:

1. Changes in decision outputs
2. Changes in the decision process
3. Changes in managers' concepts of the decision situation
4. Procedural changes: resources, time, etc. required to take decisions
5. Cost/benefit analysis
6. Service measures concerning the information system
7. Managers' assessment of the systems value
8. Anecdotal evidence – insights, examples, opinions and events concerning the decision support system

Keen and Scott Morton view evaluation as an essential part of change projects. The questions:

> What are we trying to accomplish?
> What are the criteria for determining our success or failure?
> How will we know when the system is complete?
> and
> How can we determine if the effort was worth the cost?

may appear obvious but according to Keen and Scott Morton, are often not explored at the start of a project or evaluated during or after a project.[109] These questions, as well as the eight dimensions above, seem as relevant for accounting and control projects as for DSS projects. The psychosocial process aspects that Pinto and Slevin desired are only partly covered by the eight point list above, and would constitute a useful addition. Changes in relative power of stakeholders resulting from the development effort is not covered either. It may be difficult to evaluate in terms

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[108] Peter Keen and John Scott Morton, *Decision support systems: an organisational perspective*, Addison-Wesley, 1978

[109] This observation matches my previous experience (see for example Alf Westelius, Coaching change processes: a systems approach, *Proceedings from the International Academy for Information Management*, 1993), and is also in line with the view expressed by Åke Magnusson (a management accounting and control systems consultant interviewed by me in a preliminary stage of my management accounting and control project study); that goal setting and goal explicitness are critical but not necessarily given due attention in projects.

of success (those gaining power or discretion probably view the change differently from those losing power or discretion) but it may still be important enough to warrant its inclusion in the list of aspects to evaluate.

The ten point list of aspects of success arrived at is a rather broad one, and I use it as an introduction, painting a spectrum of what systems success might mean. It is, however, a collection of interesting aspects rather than a model of information system success.

A number of authors have considered the question of information systems success and how to measure it. In an ambitious attempt to review previous research and develop a model of how different aspects of information system success relate to each other DeLone and McLean[110] studied 100 empirical articles from seven leading journals from 1980 onwards, discussing the measures actually used against 80 theoretical articles from 1949 onwards. Starting from Weaver[111] and his concept of 'levels of communication problems' normally referred to as levels of information (Technical level, Semantic level and Effectiveness or influence level, see Figure 3.20), they relate to Mason's view (from 1978) of information systems as a series of related events: Production, Product, Receipt, Influence on Recipient, and Influence on System. Finally, based on reasoning rather than statistical analysis, DeLone and McLean derive their own list of categories of information system success and relate these categories to Weaver's and Mason's concepts

Effectiveness or influence level

Semantic level

Technical level

Figure 3.20 Levels of information

(see Figure 3.21). As I will show below, there is considerable correspondence between the categories of information systems success proposed by DeLone and McLean, and the four groups of evaluation criteria drawn from accounting literature that I presented at the beginning of this section.

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110 William DeLone and Ephraim McLean, Information Systems Success: The Quest for the Dependent Variable, *Information Systems Research*, 1992, 3:1, pp. 60–95

111 Warren Weaver, Recent contributions to the mathematical theory of communication, in C Shannon and W Weaver, *The mathematical theory of communication*, 1949 (p. 4 and 24 ff. in the Illini books edition from 1963)

Information levels Weaver 1949	Technical level	Semantic level	Effectiveness or influence level		
Hierarchy of events Mason 1978	Production	Product	Receipt	Influence on recipient	Influence on system (organisation)
Categories of success DeLone & McLean 1992	System quality	Information quality	Use	User satisfaction Individual impact	Organisation impact

Figure 3.21 Information levels, information systems events, and information system success (DeLone and McLean)

The authors suggest that their six categories (at the bottom of Figure 3.21) are interdependent. This interdependence is described in Figure 3.22. System quality and information quality influence use and user satisfaction (which also influence each other). Use and user satisfaction influence individual impact, which in turn influences organisational impact.
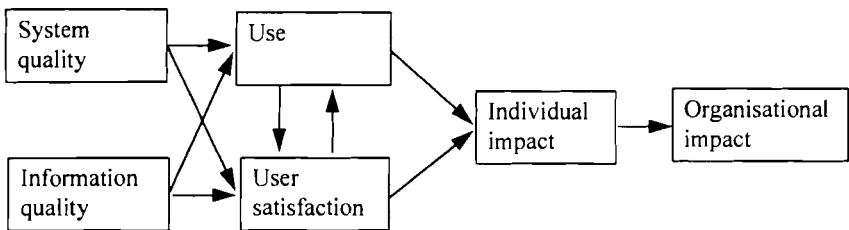
Figure 3.22 Information system success model (DeLone and McLean)

Let us return to Figure 3.21, beginning from the left hand column, moving towards the right. Success can be viewed in terms of system quality. System quality concerns the technical level of information, or the production of data. Comparing this category with the four criteria presented at the beginning of this section, it can be noted that system quality largely corresponds to what would be evaluated along what Johansson and Östman termed 'measurement systems criteria'.

Looking at Information quality as an indicator of success means moving up one step,[112] to the semantic level of information. The focus is then on the product; the data output and the possible interpretations of these data. (In terms of Langefors' infological equation I=i(D, S, t) (see Figure 3.11, p. 54 above) information quality concerns the degree to which the data (D) produced by the information system leads the user to derive the information (I) that the information system is intended to provide.) Information quality thus corresponds to, and would be evaluated according to representational criteria.

On the effectiveness or influence level of information (the rightmost column of Figure 3.21) Mason identifies three information system events. With the *receipt* of information in focus a corresponding measure of success would be information system use, reflecting the assumption that the greater the use the more successful the information system (or at least that non-use signals failure). According to the way of viewing the matter proposed by Johansson and Östman, use would be the result of a favourable evaluation along the four groups of criteria presented, rather than something to be evaluated according to a specific criterion. *Effects* of use would be evaluated, but I will return to that.

Receipt of information, or information system use, is fairly easy to determine, but says relatively little of the impact of the information system. The next logical event in Mason's chain, *Influence on recipient*, goes further in this respect. DeLone and McLean distinguish between two corresponding measures of success, user satisfaction and individual impact.

User satisfaction is a subjective notion, cannot be measured without asking the user, and need not be related to performance or 'task impact' (cf. psychosocial aspects and the observations of lack of impact, made by Kylén, cited above (p. 81).) As indicated in Figure 3.22 DeLone and McLean view user satisfaction as dependant on system quality and information quality. In the classification provided by Johansson and Östman, 'user criteria' were concerned with whether the users understood the accounting measures and accounting data and found them acceptable. That evaluation would be affected by measurements systems and representational criteria. 'User criteria' would thus be criteria for evaluating the user satisfaction category in the DeLone and McLean model.

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[112] Figuratively speaking (cf. Figure 3.20). In Figure 3.21 it obviously entails moving to the right.

Individual impact, the extent to which the information system influences the user, could possibly, to some extent, be judged by studying information system output and user actions, but largely the user will be closest to knowing what impact the system has on his thoughts and actions. (This does not mean that the user necessarily has a clear idea of the degree of influence.) Possibly even more relevant, but even more difficult to capture, is the influence on the "system"[113] (in Mason's terms), or Organisational impact (in DeLone and McLean's). Together with individual impact, organisational impact is what would be evaluated against 'effect criteria' in the Johansson and Östman terminology, but as they also note,[114] much of the impact or effect of an accounting system is difficult to demonstrate or detect, and the evaluation will then build on the explicit or implicit perceptions that individuals hold.

Given the difficulty of measuring organisational impact, it is not surprising that out of the four categories on the effectiveness or influence level it is the least frequently studied, according to the DeLone and McLean survey. The other three categories occur with about equal frequency in their survey, but among them individual influence is almost exclusively studied in a laboratory setting.[115] In general, researchers focus on one or a few of the categories identified by DeLone and McLean. Some studies in their sample address more than one aspect of success, but no study in their sample has attempted to cover all six aspects of success.

An additional observation from the survey is that the number of studies trying to address the effectiveness levels by far outnumber those studying system quality or information quality. Compared with the evaluation dimensions proposed by Keen and Scott Morton (see Figure 3.23[116]) this seems reasonable: only one of them focuses on system quality while the others direct attention towards the effectiveness or impact levels. Keen and Scott Morton thus view impact as more important than system or information quality when assessing system success. Judging by the number of items in each category, the importance of the categories

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[113] *System* here refers to the information system in its organisational context, thus encompassing users, their actions, and the effects of these actions.

[114] Sven-Erik Johansson and Lars Östman, *Accounting theory : integrating behaviour and measurement*, Pitman Publishing, 1995, p. 36 ff.

[115] The authors view the use of laboratory studies as a sign of mature research. In the context of information systems success I see it as rigor at the detriment of relevance.

[116] I have classified dimensions of system success according to the categories suggested by DeLone and McLean.

increases the further to the right you get. Half of their suggested dimensions appear in the *organisational impact*-category, possibly the most interesting category, but also the most difficult to measure and, according to DeLone and McLean, the least studied.

Categories of success DeLone & McLean 1992	System quality	Information quality	Use	User satisfaction	Individual impact	Organisational impact
Dimensions of system success Keen and Scott Morton 1978	6		8		1, 3	2, 4, 5, 7
Additional dimensions of success				9	10	

1. Changes in decision outputs
2. Changes in the decision process
3. Changes in managers' concepts of the decision situation
4. Procedural changes: resources, time, etc. required to take decisions
5. Cost/benefit analysis
6. Service measures concerning the information system
7. Managers' assessment of the systems value
8. Anecdotal evidence – insights, examples, opinions and events concerning the decision support system
9. Psychosocial process aspects
10. Changes in power structure

Eight dimensions of systems development success from Keen and Scott Morton (1-8) plus two added by me (9 and 10)

Figure 3.23 Dimensions of system success classified according to the DeLone and McLean categories. Numbers in the figure are explained in the listing below it.

The categories Information quality and User satisfaction are not specifically addressed by Keen and Scott Morton. One explanation, consistent with the reasoning underlying Mason's chain of events as well as with DeLone and McLean's model of information system success (see Figure 3.22), could be that Keen and Scott Morton presume that Information quality needs to be adequate and that the user has to be satisfied in order for the information system to have impact on the individual or organisational level.

Such an assumption could well be warranted regarding decision support systems, the topic Keen and Scott Morton discuss. The use of decision support systems is typically optional. The potential user could choose to use it or refrain from using it. The use of management accounting and control systems could build on the free choice of the users, or be mandatory to a large degree, but even in the case of mandatory use the information system quality needs to be acceptable to those who decide over the adoption of it. It could be argued that the actual use of information derived from a management accounting and control information system will always contain a substantial element of choice on the part of the potential information user. This is true even if the use is officially mandatory.

3.3.2.2 User satisfaction

For DeLone and McLean,[117] user satisfaction is one of the six aspects of information system success. Many other researchers have focused on user satisfaction as *the* relevant measure of information system success, but the definitions have varied. Ives, Olson and Baroudi[118] attempted to develop a standardised and practical instrument for the measurement of user satisfaction. The three main factors of the final instrument[119] are:

- perceived quality of communication with and services provided by EDP (electronic data processing) staff
- perceived quality of the information product
- degree of training provided users, users' understanding of the system and users' feelings of participation.

This instrument has proven influential and is still used [for example by McKeen, Guimaraes and Wetherbe (1994)]. It does not, however, represent a consensus view of what constitutes user satisfaction. The definition used by DeLone and McLean is more narrow, and they consider that the instrument measures system quality, information quality and user satisfaction. It is difficult to ascertain to what categories DeLone and McLean assign Quality of communication, and Degree of training, but it seems that they consider them as parts of User satisfaction.

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117 William DeLone and Ephraim McLean, Information Systems Success: The Quest for the Dependent Variable, *Information Systems Research*, 1992, 3:1, pp. 60–95

118 Blake Ives, Margrethe Olson and Jack Baroudi, The Measurement of User Information Satisfaction, *Communications of the ACM*, Oct 1983, 26:10 pp. 785–793

119 They refined and validated their instrument on the basis of questionnaire answers from 200 production managers.

Ives, Olson, and Baroudi wrote their article in 1983. At that time it was natural to consider electronic data processing staff an important party in the development and operation of an information system. Today this is less obvious. The distinction between developer/operator and user is less clear cut with users taking a more active part in many information systems development projects. The same development could be expected in management accounting and control, where management accounting and control is increasingly considered as a topic that many or most people in the organisation should be familiar with and able to handle. However, to the extent that management accounting and control system specialists exist and play an important role in developing and operating management accounting and control systems, it would seem likely that one aspect of user satisfaction would be the quality of communication between users and specialists.

All in all, user satisfaction, as discussed in information systems literature, hinges on whether or not users perceive the information systems product to be of acceptable quality, that they feel they understand it and know how to use it to advantage, and that they feel that the system is developed in response to their needs (through their communication with those responsible or through their own actions).

3.3.3 Consequences of user participation in the development process

As noted above, the ultimate success of an information system in an organisation will depend on how well it serves its users. If they are indeed an important group during the usage phase, what are then the consequences if they participate in earlier stages of the system life cycle?

3.3.3.1 Suggested consequences of user participation in information systems development

Compiling arguments from the literature Ives and Olson[120] arrived at the following list.

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[120] Blake Ives and Margrethe Olson, User involvement and MIS success: a review of research, *Management Science* 1984 30:5, 586–603

User participation:

1. leads to a more accurate and complete assessment of user information requirements
2. provides expertise about the organisation the system is to support (expertise usually unavailable within the information systems group)
3. helps prevent development of unacceptable or unimportant features
4. improves user understanding of the system
5. helps users develop realistic expectations about systems capabilities
6. provides an arena for bargaining and conflict resolution about design issues
7. decreases user resistance to change
8. leads to system ownership by users
9. makes users committed to the system.

Ives and Olson view the first four items as leading to improved system quality, while the last five lead to increased user acceptance. But information system quality and user acceptance are interrelated. I would therefore rather classify the items in a different manner, namely that literature suggests that user participation would

- bring more relevant information to the group developing the information system

     by providing better knowledge *of the organisation* (No. 2 above) and *of the user needs* (No. 1 and 3 above)
- influence user knowledge and perception of the system (No. 4 and 5)
- influence emotional aspects of the users' relations to the change and the information system (No. 7, 8 and 9)
- enhance communication between stakeholders concerning power, goals, and interests (No. 6)

Relating to the discussion of degree of influence above (p. 71) I judge that the first five items of the Ives and Olson nine item list could be achieved through participation that does not entail influence over decisions, but the last four seem unlikely to materialise unless the participation gives the users the sense of being able to influence the process.

An additional potential benefit of user participation that can be found in literature, but which is not included in the Ives and Olson list, is that user participation would increase democracy. This notion seems to have been a

predominantly Scandinavian phenomenon. Bjerknes and Bratteteig[121] reviewed six Scandinavian projects aiming at increased democracy through user participation.

3.3.3.2 Research findings on consequences of user participation

Bjerknes and Bratteteig noted that, strictly speaking, none of the six projects they reviewed had promoted democracy if democracy is the equal right of all parties. In each project the aim had been to strengthen the position of a (weak) party, but in the process they have left other weak parties unaided. The authors noted that the projects have not been especially successful, even given the more narrow aim of strengthening the position of a specific group through participation in information systems development projects.

Neither did Ives and Olson find strong support for the claims they listed (reproduced above) when they reviewed previous research. They suggested that this may be due to methodological weaknesses in the research rather than being the result of an absence of the hypothesised relationships. Research has continued in the area, to some extent influenced by the observations made by Ives and Olsen. I have noted the following:

Hirschheim[122] found positive as well as negative consequences of user participation when he interviewed managers, users and information systems specialists with experiences from participative design,[123] (participation giving users some degree of influence and control over the development). The different groups had slightly different views, but they all viewed participation as mainly beneficial.

Benefits
- Information systems specialists: More robust systems, less information systems person time; information systems specialists function as consultants, not as "workers"

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[121] Gro Bjerknes and Tone Bratteteig, User participation and democracy: a discussion of Scandinavian research on system development, *Scandinavian journal of information systems*, 1995, 7(1):73–98

[122] R Hirschheim, User Experience with and Assessment of Participative Systems Design, *MIS Quarterly* 1985 9:4 295–304

[123] Hirschheim conducted interviews in eight organisations – six where representative participation had been applied and two where consensus participation had been applied.

- Line and users: positive to be heard early, improved communication between information systems personnel and line, and between line and senior management, actually developing needed systems
- Senior management: more humanistic and less autocratic way of conducting projects, better feedback from users about needs

A majority of the information systems specialists noted that the number of requests for modifications to the resulting systems was lower than for applications developed conventionally, but some information systems specialists found that the participation made the users more aware of the potential of information systems, thus increasingly demanding enhancements. Actively participating users developed a feeling of ownership and commitment and became more willing to accept problems in applications than was usual for applications developed without active user participation.[124]

User knowledge and perception of the system and influence on emotional aspects of the users' relations to the change and the information system were positively affected and led to less time needed for implementation of participatively developed systems. The influence on knowledge and emotional aspects only applied directly to the users who were actually participating. The users who did not participate had not advanced on the learning curve regarding use and acceptance of the system. Indirectly, however, there was a positive effect: the participating users could help their colleagues learn and accept the new system.

Hirschheim thus found support for all items in the Ives and Olson list, but he also noted problems with participative development.

Problems

- User participation prolonged design time, and more time was spent on minor issues in design.
- Where participative design was a novel concept it was difficult to convince all concerned that the approach was feasible. However, the increased time in the design phase paid off during implementation, which was quicker and required less resources than under non-participative design.
- It was difficult to find time to meet; participative design involves more people from a larger number of functions than non-participative design.
- In one of the eight organisations it had been difficult to find the proper point in time at which to involve users: if introduced at an early stage

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[124] Ibid. p. 300

users found difficulty to conceptualise non-existent systems, and if introduced at a late stage they felt left out and the positive effects failed to materialise.

Quantitative research results on the relationship between participation and success

Hirschheim employed a qualitative approach with semi-structured interviews because he deemed that a more quantitative approach would fail to properly capture the experiences and opinions that could describe the consequences of participative design. This was in contrast to the recommendation of Ives and Olson, who suggested that the field needed more rigorous quantitative research. Wagner[125] was one of the researchers who followed the rigorous quantitative path. Based on meta-analyses of previous quantitative research[126] he evaluated the influence of participation on satisfaction and performance. Investigating six forms of participation differing in type of participation and influence[127] he found that he could not distinguish any of them as more influential than the others. All influences were small, and many insignificant too. Some analyses he performed indicated that the influence of participation on satisfaction is greater than that on performance, but the overall conclusion of the paper is that participation seems to have a positive but quite small impact on performance as well as on satisfaction. He did not rule out that these small effects could build up to a large effect over time, but found no research that attempted to test that.

Wagner explores consequences on a much more general level than Hirschheim, but he has a larger variance in forms of participation. Although his findings point in the same direction as Hirschheim's their conclusions differ sharply as Wagner questions the belief that participation as such promotes satisfaction or performance to any practically significant extent. It should be noted that Hirschheim studied forms of participation

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[125] John Wagner III, Participation's effects on performance and satisfaction: a reconsideration of research evidence, *Academy of Management Review* 1994 Vol. 19:2 312–330

[126] Wagner referred to 68 studies of which he could use 49 and compared his results with 10 other reviews of previous research.

[127] The six forms were Participation in work decisions, Consultative participation, Short term participation, Informal participation, Employee ownership, and Representative participation.

where users play a significantly larger role than they do in the studies evaluated by Wagner.

In a study of computer-based management information systems in small companies DeLone[128] found that top manager participation[129] was one of the few factors in the study that correlated positively with information systems success.[130] Regarding MIS in small enterprises top managers are presumably end users. I thus take the results of the study as an indication of benefits with user participation; user participation influences the user to perceive the resulting information system as successful. Success is, however, a less direct consequence of participation than the items listed by Ives and Olson (see p. 93). In a more elaborate model of causes and effects those items could be expected to appear between participation and success. Some such models have been proposed and tested.

Models of factors influencing system success

Tait and Vessey[131] constructed a contingency model of factors influencing information systems success.[132] They found that technical complexity of the system and resource constraints in development were the primary determinants of success, both directly and via extent of user participation (as defined by Ives and Olson 1984 – degrees of user involvement – see p. 71 above). User participation influenced success, but was not statistically significant. The extent of user participation was found to be higher in the development of technically complex systems. The numerical results of the study are open to a considerable freedom of interpretation. Their piece of research could indicate that user participation, while beneficial in the development of technically complex systems, is not necessarily useful in

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[128] William DeLone, Determinants of success for computer usage in small business *MIS Quarterly* 1988, Vol. 12:1 pp. 50–61

[129] Participation was operationalised as the number of hours per month that the chief executive spent interacting with the data processing manager.

[130] Information systems success was defined as use of computer-generated reports by top management and the impact of computer applications on the business rated by top management.

[131] Peter Tait and Iris Vessey, The Effect of User Involvement on System Success: A contingency approach, *MIS Quarterly* 1988 Vol. 12:1 pp. 90–107

[132] Information systems success was measured as user satisfaction with the system. Compared with the classification of measures of success by DeLone and McLean (see p. 88 above) user satisfaction is not the last in the chain, but it does belong to the "effectiveness and influence" category.

the development of uncomplicated systems. The study could also be inter-preted as showing that the extent of user participation is relatively un-important for the success of an information systems venture.

The Tait and Vessey study indicates that technical complexity of a sys-tem may influence the consequences of user participation. Another important factor is whether usage is mandatory or not, according to research by Hartwick and Barki.[133] The models they arrived at are depicted in Figure 3.24 and Figure 3.25.
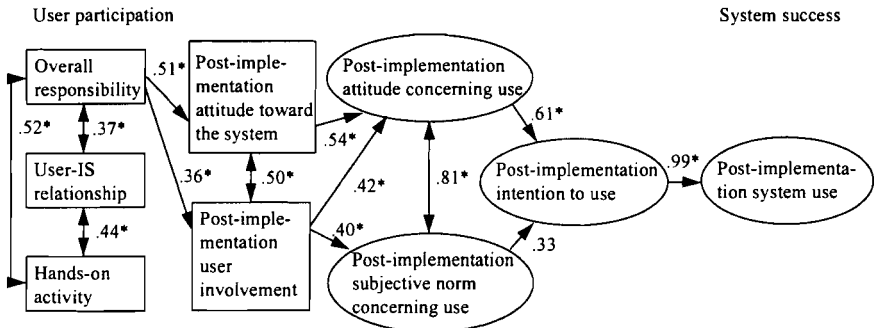
Figure 3.24 Voluntary use, (Hartwick and Barki 1994)
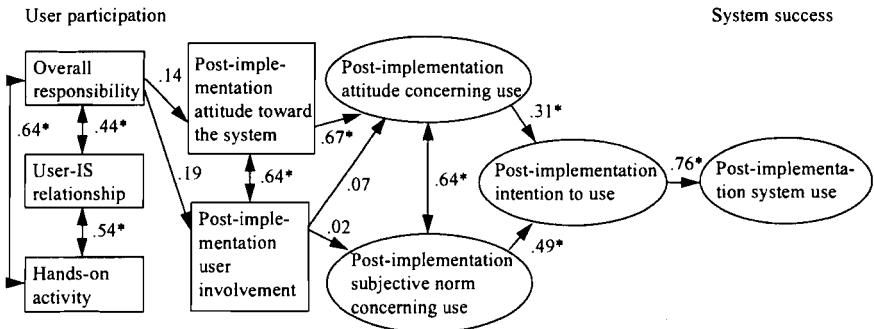
Figure 3.25 Mandatory use (Hartwick and Barki 1994)

[133] Jon Hartwick and Henri Barki, Explaining the role of user participation in in-formation systems use, *Management Science* 1994 Vol. 40:4 pp. 440–465. They base their analysis on questionnaire responses from 127 users representing 74 applications in 60 or-ganisations. The applications were business-oriented, new (not enhancements on old ones) and developed in-house.

Hartwick and Barki expected that participation (overall responsibility, user-IS relationship, and hands-on use) would influence attitude toward the system, and involvement,[134] and so on down to system use, which they used as a measure of system success.[135] If we compare their model with the Ives and Olson list of benefits of user participation we can note that the model is only concerned with the emotional effects in the list. The Hartwick and Barki study provides nuanced support for the existence of some emotional effects. What they found was that participation and involvement play the roles they expected in the development of information systems where use was voluntary, but that neither participation nor involvement could be shown to influence the "downstream" variables where use of the system was mandatory.[136] Looking at the three elements of user participation it can be noted that among them only 'Overall responsibility' directly affects the next set of variables, 'Attitude towards the system' and 'User involvement'. 'Overall responsibility' is the only one of the three user participation variables that exclusively contains items measuring control over the process and proactive influence over non-trivial aspects of the development process. One possible interpretation of this is that only participation that confers control over the development process on users affects their attitude and involvement substantially. Such an interpretation would not be inconsistent with the findings of Hirschheim.[137]

Another notable difference between the models in the figures above is that subjective norm (what the user thinks that others in the organisation expect him to do) is only of direct importance to 'Intention to use' in the case of mandatory use (Figure 3.25). It is then also more important than 'attitude concerning use' (a measure of how the user felt about using the system). When use of the system is judged as voluntary by the user (Figure 3.24) what others think is not shown to be significant in determining the intention to use the system. Then 'attitude concerning use', the user's own feelings towards his use, was the only significant determinant. In the case of voluntary use, the correspondence between his own feelings

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[134] Their definitions of the terms participation and involvement are discussed above (starting on p. 72).

[135] System use is a less ambitious measure of success than user satisfaction in the classification made by DeLone and McLean (see p. 88 above).

[136] This finding is not trivial as they specifically note that there is a discretion concerning extent of usage even among users who are required to use an information system.

[137] See p. 95 ff. above.

towards his use, and subjective norm (what the user thinks that others in the organisation expect him to do) was also considerably closer than in the case of mandatory use.

Whereas Hartwick and Barki select system use as indicator of system success, McKeen, Guimaraes and Wetherbe[138] are among those who prefer user satisfaction (as indicator of system success). McKeen et al. hypothesised that the influence of user participation on user satisfaction is dependent on moderating variables (see Figure 3.26). While Hartwick and Barki focused on the emotional outcomes of participation McKeen et al. investigated a model that encompasses most of the Ives and Olson list *except* the emotional items.[139] Just as Tait and Vessey (1988) they view complexity as relative: what one individual experiences as complex another might consider trivial.

Figure 3.26 Moderated relationship between participation and success, McKeen et al. 1994

The instrument McKeen et al. use to measure user participation builds on one developed by Olson and Ives in 1980. It includes many items that I would refer to as influence or control: leading the project, designing requirements, approving different stages, etc. This parallels the classification I made in the table on p. 77 of type of participation as indicating different levels of influence or control. What becomes confusing is that they also have a factor labelled *User influence* in their model. Their definition of User influence is, however, a more active one and is measured by questions tapping user initiative, thus more closely resembling

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[138] James McKeen, Tor Guimaraes, and James Wetherbe, The relationship between user participation and user satisfaction: an investigation of four contingency factors, *MIS Quarterly*, December 1994

[139] The instrument McKeen et al. use to measure User satisfaction was developed by Ives, Olson and Baroudi (Blake Ives, Margrethe Olson and Jack Baroudi, The Measurement of User Information Satisfaction, *Communications of the ACM*, Oct 1983, 26:10 pp. 785–793). This instrument focuses on user perceptions of accuracy and relevance of output information, and training and knowledge of the system, as well as communication and relationship with EDP (electronic data processing) staff.

what I called *type of user control* than what I called *level of influence or control* in the table. When reproducing their initial model in Figure 3.26 I have used their terms.

They expect the benefits from participation listed by Ives and Olson to be valid, but not indiscriminately so; the benefits are subject to contingent conditions. In complex situations (task and system complexity) the authors expect that users and developers will benefit from close interaction by exchanging views, identifying and resolving conflicts, as well as sharing information necessary to effectively accomplish the task.

They go on to state that participation does not ensure good communication, and that different frames of reference and different perspectives (political versus rational, for example) make communication both difficult and potentially useful.

In line with, for example, Hirschheim's beliefs and findings[140] they suppose that participation where users have the initiative and can control the development (*User influence* in the model) will result in higher user satisfaction than given participation without influence.

When McKeen et al. test their model on data from a large number of development projects in large companies[141] they find all variables significant, but the relationships are not entirely the hypothesised ones. Initiative[142] and Communication turn out to be independent rather than moderating variables (see Figure 3.27). Thus in
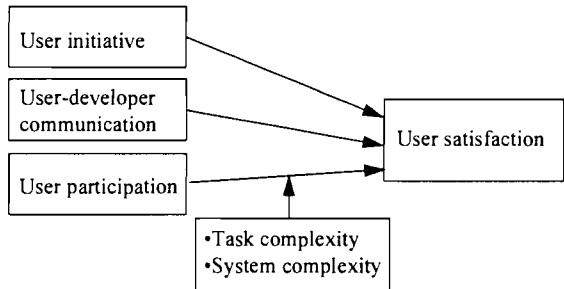
Figure 3.27 Empirically derived model of determinants of user satisfaction, based on McKeen et al. 1994

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141 They gathered data from 151 systems development projects (completed between 1987 and 1989) in 8 large companies with user participation as part of their development methodologies. Primary sources of data were project managers or project leaders and end users. Data were gathered through brief interviews and questionnaires in 1990.

142 As discussed above they use the label "User influence" for an aggregate of questions checking user initiative at different points in the development process. A number of the items they use for determining "User participation" could be expected to produce user influence. Under these circumstances I find the label "User influence" confusing and I have replaced it with "User initiative" in Figure 3.27.

development projects where users experience that they have the initiative and where they judge the communication with developers to be good, they are more satisfied with the end result than in projects where they feel that the initiative rests with the developers and that they have a poor communication with them. This relationship holds true in the study regardless of the level of participation. On the other hand, the effect of user participation on user satisfaction is moderated by task and system complexity. When task and system complexity are high, user participation has to be high in order for user satisfaction to materialise, but when complexity is low, the effect of user participation on user satisfaction is not significant.

Management accounting and control systems could be expected to be complex. Thus user satisfaction could be expected to be greater the greater the level of user initiative, communication between users and project team, and user participation in the project. A lack of initiative, communication, and participation could be expected to lead to low user satisfaction with the resulting system.

McKeen et al. distinguish user initiative and user/developer communication as separate from participation. Based on their findings, it could be argued that given a large degree of user initiative and good communication between users and developers, users need not participate in projects. On the other hand, it could be argued that this is a play on words. User initiative and communication between users and developers could be viewed as aspects of participation. Then the results of the study would be reduced to a piece of evidence of a positive relationship between participation and satisfaction; evidence which points out the importance of initiative and communication in the participation.

3.3.3.3 Perception of influence as determinant of user satisfaction

From much of the research reported above it seems that control over the development process, or at least user perception of influence on the development process, is important as a determinant of user satisfaction. Baronas and Louis[143] designed a field experiment in a large organisation[144]

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[143] Ann-Marie Baronas and Meryl Louis, Restoring a sense of control during implementation: how user involvement leads to system acceptance, *MIS Quarterly* 1988, Vol. 12:1, pp. 111–124

where they tested the effect of symbolic gestures (such as choosing the dates for user training within a narrow span) designed to give the users a feeling of control over the implementation process. (The information system was already designed and built). Their hypothesis was that Predictability, Choice and Responsibility would influence Perceived control, which in turn would influence Success of implementation, Stress during implementation, Perceived reasonableness of implementation schedule, Job satisfaction, and Satisfaction with the computer based information system.

At an aggregate level their hypothesis was supported. The users who received training geared to making them feel in control of their work were more favourable to the new system than those who received no such modifications of their training.

At a detailed level, not all hypothesised relationships were supported. Implementation success, Implementation stress, and Job satisfaction did not differ significantly between the two groups, but the following did: Perceived reasonableness of schedule (including Satisfaction with the implementation team, Managers' attitudes towards implementation and Managers' satisfaction with the system) and User satisfaction with the computer based information system (including Assessment of information from new system, Difference between assessment of information from new and old system, and Retrospective satisfaction with the old system).

It is interesting to note that the differences related to managers as well as to users. It is also interesting to note that those who felt in control of the implementation process downgraded their perception of the old system and those who were not given reason to feel in control upgraded their perception of the old system. Thus perceived control (as well as responsibility and possibly support) improves satisfaction, and perceived lack of control increases dissatisfaction. Showing an interest in the person and giving him a sense that he can control the development that affects him give effect, even when the material degree of control is slight.

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144 The test was conducted with 92 personnel from 35 state government agencies (small, medium-sized and large) in the Northeast of the US. Test and control groups showed no significant prior differences in job satisfaction or user information satisfaction.

3.3.3.4 Summary

User participation can be seen as a means to capture and pay heed to user perspectives in information systems development. The research reviewed in this section indicates that user participation gives positive results in terms of user satisfaction with the resulting system, provided that the participation gives the users a sense of influence and control over the process, and that they experience having good communication with the system developers. The communication between developers and users helps secure good information quality and alignment of the information system output with user needs. There also seems to be an emotional component of appreciating the product one has helped develop, despite its shortcomings.

It was also suggested, although not explicitly tested, that user participation in the development process would help users better understand the resulting information system, and thus be able to use them to advantage. Hirschheim's study indicated that extensive participation helped users develop an understanding of the potential of the information system for their work, and thus to actively formulate demands for (additional) functionality.[145]

Yet an aspect noted was that the communication between developers and a range of participants (possibly from different functions) facilitated the identification and resolution of conflicts. This may in turn remove obstacles to the realisation of individual and organisational effects of the use of the information system developed.

3.3.4 The use of management accounting and control information

The analysis of the consequences of the development and implementation of management information systems may be informed by considering the use of management accounting and control information in relation to other information. In the discussion of user participation the concept *users* is treated as if it were unproblematic to define, and as if designating a homogeneous group. In the section on stakeholders above (section 3.2.1), I pointed at the distinction between users and end users – system operators and information users. This distinction points at two aspects of usage that

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[145] See p. 95 above.

are likely to influence the perspective of the respective role holders. The system operator could be expected to focus on aspects of the principles and the system that affect the handling of it, such as level of detail and subsequent work with keeping the system updated. The information users may, for example, be more concerned with the quality of the description of the business activities that the principles and the implementation of them lead to. In section 3.3.2, I discussed the concepts *Power to do* and *Power over*. This focuses on the difference between being described by the system and using information from it. But who is an information user? Who wants and uses management accounting and control information, and what is the relation between the use of such information and other information?

Preston (1986)[146] studied this relationship during one year of participant observation and interviews ("four days a week") in an English plastic container manufacturing operation with 250 employees. He found that managers inform themselves and each other, mostly by word-of-mouth. Informing is reciprocal. Those who do not seem to contribute useful information are gradually left out, and become even less well informed. The production manager [positioned between the managing director and the factory managers (departmental managers, sales manager, production planner, etc.)] was not informed by the factory managers. The production manager was required to evaluate the factory managers, and they had no intention of giving him any information that would help him do that. Some actors would not inform each other because they did not like each other. They would then resort to information from a third party, but this was regarded as breaking the rules, and might affect the third party's arrangement to inform. Strategic misinforming also occurred, but the researcher had problems obtaining data on it. In addition to reciprocal informing, the managers used observation and personal record keeping as methods of informing themselves. Private information was indeed private and used politically as well as to run the operations.

Official information (output from formal information systems) was not used much for running the business, but used to see trends, reminding of forgotten events, etc. It was also regarded as information for top management, and therefore inaccuracies were pointed out (although not necessarily right away). Preston believed that informal information systems are a trait

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146 Alistair Preston, Interactions and arrangements in the process of informing, *Accounting, Organizations, and Society*, 1986, Vol. 11:6 pp. 521–540

of the social human being. He therefore suggested that it is wiser to design formal information systems that aim at the uses of formal information that he detected, rather than to try to *replace* the informal with the formal.

McKinnon and Bruns (1992)[147] interviewed general managers, functional managers, and staff in a dozen companies and found patterns of information use similar to those reported by Preston. The controllers and financial officers were the primary users of management accounting information and saw management accounting reports as mirrors of the business operations. Production, marketing, and sales managers used physical data and information, typically obtained by face-to-face contact or through informal reporting, to run their units. These functional managers used accounting reports to see if they met the long-term goals, and learned about the economic consequences their day-to-day actions resulted in. Periodic reports also served to identify recurring events, and by reminding of previous similar situations helped relate possible actions with outcomes. The general managers' use of information was too individualistic to allow generalisations, but few referred to management accounting reports as the information that was most valuable to them. This is somewhat in contrast to what Hopwood,[148] Scapens and Roberts,[149] and Simons[150] say. These accounting researchers look for the importance of management accounting, and find it. I noted above Scapens and Roberts' argument of management accounting as a tool providing the 'power to do' (see p. 82) and Hopwood's related suggestion that accounting can be used proactively to change an organisation (see p. 82). Both articles maintain that accounting has a significant influence on how people think and act in organisations. Simons finds that managerial accounting plays important roles in planning and control, either as interactive control systems (where managers involve themselves in the decision processes of their subordinates), or as tools for programmed control (where the infor-

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[147] Sharon McKinnon and William Bruns, *The Information Mosaic*, Harvard Business School Press, 1992

[148] Anthony Hopwood, Accounting and organisation change, *Accounting, Auditing and Accountability Journal*, 1990, Vol:3:1 pp.7–17

[149] Robert Scapens and John Roberts, Accounting and control: a case study of resistance to accounting change, *Management Accounting Research*, 1993 pp. 1–32

[150] Robert Simons, Planning, control, and uncertainty: a process view, in William Bruns and Robert Kaplan (eds) *Accounting & Management: field study perspectives*, Harvard Business School Press, 1987, pp. 339–362

mation systems are used to direct the attention of subordinates toward establishing and maintaining predetermined control procedures).

Thus management accounting information, as it is produced today, may be used by many in a company, but according to some researchers seems to be important foremost to the controllers and financial officers. If the findings of Preston, and McKinnon and Bruns, are representative of how non-accountants view management accounting information, it could be expected that functional managers will not get much involved in management accounting and control projects. Others maintain that it is, or at least should be important to higher managers, and that the principles of management accounting and control influence how people view the activities they perform. The importance different people attribute to management accounting information is likely to influence who participate in management accounting and control projects and in what way they participate.

My own previous research in this area[151] indicated that few people in production, logistics, sales and marketing were indifferent to product costing information. Some of them had strong views on what costing principles ought to be used. Others saw the general indications of the size of different costs as the important aspect, imparting a sense of economy and discouraging unnecessary waste. Yet others saw the efficiency standards signalled by the different cost components as the important aspect. Only one manager claimed that the product costing information was *irrelevant* to his job. There were, however, others who claimed that they did not find the time to *use* the costing information to advantage. This indicates that almost all these managers could view themselves as potential information users.

Referring to the previous discussion of user participation, it would then seem probable that they would be more satisfied with new principles of product costing if they felt they had some influence or control over the development of these principles. It is, however, not likely that those who did not even find time to use the available costing information would take the initiative to participate in a development project. The choice of including or excluding them from the process would then to a large degree rest on the project manager.

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[151] The Astra case in Alf Westelius and Ann-Sofie Westelius, *Decentraliserade informationssystem - två fallstudier inom ekonomistyrning*, EFI, 1990 (in Swedish. The title translates as Decentralised information systems: two case studies in management accounting and control)

3.3.5 Developing a system that makes a difference

For a long time there have been proponents in the academic literature for the idea that technical quality of a solution is not sufficient to guarantee that it may be successfully applied in a system that includes human actors.[152] In addition to *technical merit* it also needs to be *accepted*. In Soft Systems Methodology a similar distinction in two factors appears. There they are referred to as *systemically desirable* and *culturally feasible*.[153] The envisaged system may be believed to be systemically desirable by the project manager, and perhaps by others, if they perceive it as *appropriate, that is,* they see it as providing an accurate description and they believe that it would fill the needs they perceive. If the system is also culturally feasible it means that the other stakeholders will accept it too.

Regarding management accounting and control it is quite possible to envisage systems that are perceived by some as systemically desirable, but that are not culturally feasible. The now popular introduction of market economy style management accounting and control in the public sector is an example of a possibly systemically desirable system that was not culturally feasible in the 1970's.

Stating the demands as *systemically desirable* and *culturally feasible* implicitly assumes that the system is also understood. In discussions of systems development success and user satisfaction above *understanding* was a recurring theme. Ives and Olson suggested that user understanding of the system and development of realistic expectations about its capabilities were two of the positive consequences that could be achieved through user participation in systems development (see p. 93 above). When Ives, Olson and Baroudi developed an instrument to measure user satisfaction, users' understanding of the system was included among the three main factors (see p. 92 above). User understanding was also suggested as an important part of the group 'user criteria' as presented by Johansson and Östman (see p. 84 above). Boland and Tenkasi, in their discussion of formation of knowledge (see p. 56 above) point out the difficulties of com-

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152 See, for example, Rensis Likert, *New patterns of Management*, McGraw-Hill, 1961, p. 212.

153 Peter Checkland and Jim Scholes, *Soft Systems Methodology in action*, John Wiley & Sons, 1990, p. 52 ff.

municating across borders of 'communities of knowing'. An implication this has for the development of user understanding of a system is that developing this understanding will be far more complicated if the system is developed in a 'community of knowing' to which all users do not belong. McFarlan views developing systems that actually meet user needs as a difficult task, and suggested a number of ways in which users can participate in the development process to help align the project outcomes with user needs (see p. 68 above). A number of these 'external integration tools' serve to ensure that the users understand the system being developed so that they can help direct the development effort to achieve the desired alignment. I thus find the point of understanding important enough to warrant that it is explicitly recognised as a separate demand. In the next section, I develop my view of a three-factor framework of demands on successful system changes.

3.3.5.1 Conditions for success: A three-factor framework

A successful management accounting and control system influences the behaviour of actors in an organisation[154] in such a way that it supports the profitable operation of the organisation.[155] To have an impact it needs to be used. It could be used because the information users accept it based on its merits (that they find it appropriate and feel they understand it). It could also be used as a result of top management or director of accounting fiat, provided that the users accept this. To be successful it still needs to be appropriate for its task and understood by those who use it. Three prerequisites for a successful system are thus that it should be *appropriate*, *understood*, and *accepted*.

By appropriate I mean that the system needs to provide a description of the operations that could be considered as *accurate* by those who know and understand the operations, in order not to be misleading. This was discussed above[156] as systems quality and information quality. It is, however, not enough that the description can be considered as accurate; the management accounting and control system also has to *fill a need*. An accurate description that no one needs is no foundation for a successful

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154 Referred to as *Individual impact* in section 3.3.2.1 above.

155 Referred to as *Organisational impact* in section 3.3.2.1 above.

156 Section 3.3.2.1 Aspects of system success.

system. This aspect has been discussed above in terms of user require-
ments or meeting user needs; aspects of user satisfaction.

"Users" is, however, a complex notion
regarding management accounting and
control systems. There are system
operators who use the system hands on.
(See Figure 3.28.) There are also infor-
mation users, who may be, but need not
be, system operators. This is a trait
shared with many other information
systems. Furthermore there are informa-
tion needs that are derived from people
who need not themselves be information
users. A manager may, for example,
feel that his subordinates ought to
consider certain information because he
believes that this will make them
behave in a way that furthers the
profitability of the organisation. (In

Figure 3.28 Roles in relation to a
management accounting and control
system

terms of the figure he would then be manager of information users.) Thus
needs are not necessarily derived from the information users' own
perceptions of needs.

What is *accurate* is not unproblematic either. Principles of management
accounting and control are models that could be considered to be more or
less accurate by a person evaluating them, but the standard he uses is *his
judgement*. Accuracy is a mental construction rather than a piece of truth.
I stated above that a description of a set of business operations should be
considered as accurate by those who know and understand the operations
in order not to be misleading. There is no guarantee that a consensus
opinion on what is to be considered as accurate can be reached. An infor-
mation user may, for example, view a description as inaccurate even if
those described view it as accurate. Such a view may build on a different
perception of the piece of reality that is described. It may also stem from
poor understanding of the description and be a result of a misinterpreta-
tion. Understanding may thus influence the perception of accuracy and
hence appropriateness.

There is also a relationship between understanding and acceptance.
Someone who has a poor understanding of a system may be reluctant to

accept it because of the feeling of not understanding it. Apart from this possible reaction, a person with a poor understanding of the system would come to depend more on cues other than his own appreciation of the qualities of the system, such as the opinions of others or his evaluation of the stakeholders involved, than a person who understands the system well. A person who understands the system well and finds it appropriate would be likely to accept it, unless there are emotional or political aspects involved that override the evaluation. Likewise an opinion of low appropriateness of the system, based on a good understanding of it, would be likely to lead to non-acceptance unless strong emotional or political aspects dictate otherwise.

The information systems development tradition stresses that the more the stakeholders accept an information system, the better. Achieved appropriateness may depend on acceptance. If those who provide information are opposed to the system, low information quality is likely to result. If those who are to use the system directly or via intermediaries do not accept it, they could refrain from using it or use it as little as possible. They may also be unwilling to learn the logic of the system, and because of this, are not able to use it properly. This illustrates the relationship between acceptance and understanding.

A manager of a management accounting and control project can be expected to have the ambition that his project will eventually result in a successful system. Theory then suggests that he would want to produce an appropriate system: one that is perceived as accurate and needed. Furthermore, he would want the system to be understood, and, last but not least, accepted, possibly to a degree where users feel commitment towards using and maintaining it and possibly even feel ownership. These three demands on a successful system are listed in Figure 3.29. *Each of the three demands is meaningful only in relation to stakeholders.* It is stakeholders who will perceive it as more or less appropriate, it is stakeholders who will understand it well or poorly, and it is stakeholders who will accept or not accept it. How does a project manager develop his pattern of communication to accomplish this?

> Accepted
>
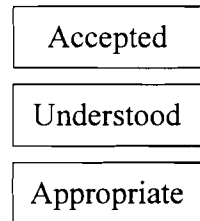> Understood
>
> Appropriate

Figure 3.29 Three demands on a successful system

A project manager can choose to base his opinion of whether the principles of management accounting and control are accurate and needed on

his own judgement, or complement his views with the opinions of others. If he leaves the responsibility for the development to users, the pattern may rather be the reversed. He can stay out of the design process or provide input to it – provide his own thoughts or facilitate for others to have their say. He can assume that the information users and other relevant stakeholders understand or will understand the principles which he perceives as clear and logical, or he can try to develop ways to ascertain that they understand. He can also spend more or less effort on getting the system accepted by different stakeholders or on checking that it is accepted.

3.3.5.2 Relation between demands and development phases

Development of a management accounting and control system up to the point when it is used can be viewed as consisting primarily of the phases investigation, design, and implementation. The first of the demands in Figure 3.29, that the system is appropriate, needs to be achieved in the phases investigation and design. Views on what is to be considered as *accurate* may well differ between stakeholders, and *needed* is likely to be perceived differently by different potential users (and other stakeholders, such as those described by the system). Choices of perspectives management relative to the demand *appropriate* thus involves deciding how to judge if the system being developed is indeed correct and provides needed functionality. *Who* could contribute *when* and with *what* to assure that the system becomes appropriate, and *who* should it be *appropriate to*?

The second demand, that the system is *understood*, at least by the information users, needs to be achieved in the implementation phase at the latest if it is to be used successfully. As stated above, the system cannot be considered as successful if the information users use a system they do not understand. The process of getting the users to understand the management accounting and control principles that are implemented in the system could start already in the investigation phase. The result of the process will depend on what part users have played in the pattern of communication around the project.

The fulfilment of the third demand, that the system is *accepted*, will build on the previous two, and on how it has been anchored with whom, and when. Acceptance also needs to be achieved in the implementation phase at the latest. The process of anchoring is influenced by how the project is conducted throughout its life.

3.4 A summary of the framework

In this chapter I have discussed the area I am studying, based on literature from the information management area (systems theory, change processes, and information systems development), from the project management area, and from the management accounting and control area. At the beginning of the chapter I stated two purposes with this discussion. One is to give the reader a picture of the background I am relating to. The other is to develop the framework for my analysis, detailing the aspects who, what, when, and how, and the concept 'consequences'. I now summarise this framework.

In section 3.1, I discussed ways of describing timing, arriving at a model of phases that I use to detail the aspect **'when'**. This model is re-produced below.

Initiation   "Theory"   Pilot project   Anchoring
Idea   Project   study   Investigation   Design
formation

Adjustment   Review   Termination
Implemen-   Continuous   Knowledge
tation   operation   dissemination
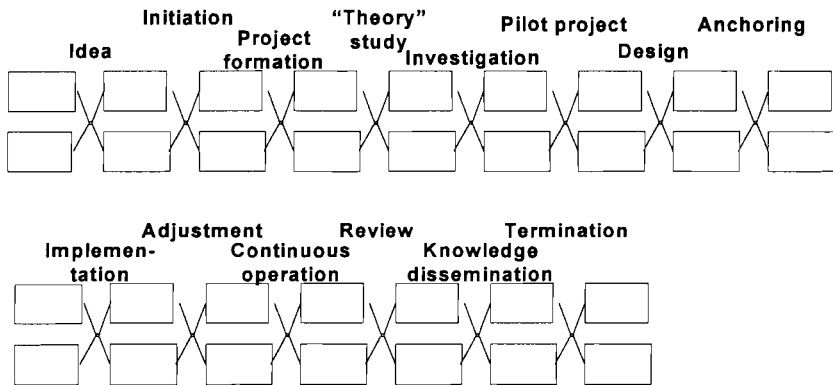
Figure 3.30 Phases in the life cycle of principles of management accounting and control

The aspects 'who', 'what' and 'how' were discussed in section 3.2. **'Who'** is often described as a person's relation to the organisation, for example product manager, production foreman, or corporate chief accountant. This way of viewing 'who' is probably of some relevance here too, but I identified two complementing ways of detailing 'who' – roles in relation to the change effort, and roles in relation to the direct product of it; the management accounting and control system. Thinking of roles in relation to the change effort, I find the distinction made in Soft Systems Methodology between *actors*, *owners* and *customers* of the change, useful for

thinking about the delimitation of the system under consideration. The classification of customers as beneficiaries or victims is also likely to be of interest in the analysis.

Looking at the 'customer' group, I wanted a further distinction according to how a person would be a customer of the change. To describe this relation, I developed the model in Figure 3.31, drawing mainly on information systems development literature. It shows four roles a person can have in relation to the system of management accounting and control being developed. At the top and bottom of the figure are those whose actions the management accounting and control system is intended to affect: information users and those described. The management accounting and control system will be designed to depict consequences of actions performed in the organisation. 'Those described' is short for those who perform those actions. To the right and the left in the figure are roles that are related to the management accounting and control system as such, rather than to the information that can be derived from it: system owners and system operators.

Figure 3.31 Roles in relation to the management accounting and control system

The discussion of *perspective* in section 3.2 had the distinction between objective and subjective as one main theme. Exploring the notion of subjective views of the world led to an idea of detailing **'what'** as different levels of understanding a person's perspective. I suggested that the project manager can have different levels in seeking to understand someone else's perspective, from looking for descriptions of 'what is', taking them as rather factual, via seeing descriptions and other statements as subjective, and then looking for more and more of what helped shape these statements. In the context of management accounting and control projects the 'What' aspect of the communication could then be thought of in terms of how deeply the project manager is trying to understand the way the other person views the business activities and the role of the principles of management accounting and control in relation to the business activities and himself. This is a rather 'soft' detailing of 'what' and one that is not

very easy to observe. Drawing on the discussions in section 3.3, I suggest that this could be conceptualised as if the project manager shows an interest in the person's picture of the business activities ('Description' in Figure 3.32), if he is interested in the person's view of information needs and the use of the principles of management accounting and control, or if he is caring about the person's perception of consequences of applying and using the principles ('Effects' in the figure).

```
┌─────────────────┐
│   Effects of    │
│   principles    │
└─────────────────┘
┌─────────────────┐
│    Use and      │
│ information needs│
└─────────────────┘
┌─────────────────┐
│ Description of  │
│business activities│
└─────────────────┘
```
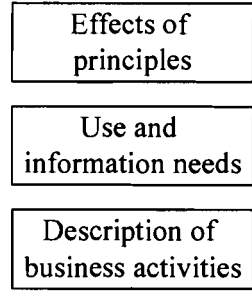
Figure 3.32 Detailing the 'what' aspect

The discussion of the fourth aspect, **'how'**, suggested that attention should be paid to the project manager's balance between input and output, between seeking and sending. This could be further elaborated as in Figure 3.33 and its mirror image, relating it to what the counterpart is interested in or is willing to supply.
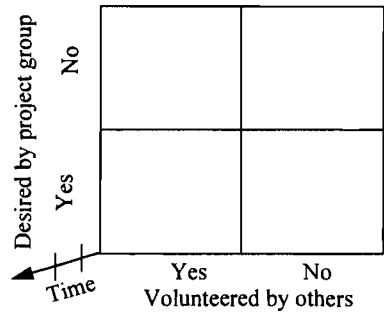
Figure 3.33 Perspectives desired by the project manager

The communication could also be detailed in terms of how direct a contact the project manager chooses to have, as in Figure 3.34, from basing his perception on previous experience (reflection) or, regarding output, relying on that the stakeholders concerned form their opinions of the management accounting and control system in the same way (reflection), via seeking new input or disseminating output via intermediaries, to actually getting in direct contact with the stakeholder in question.

```
┌─────────────────┐
│    Contact      │
└─────────────────┘
┌─────────────────┐
│  Intermediaries │
└─────────────────┘
┌─────────────────┐
│   Reflection    │
└─────────────────┘
```
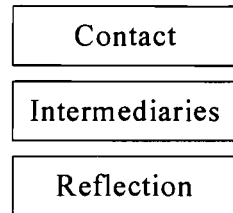
Figure 3.34 Degree of search

A complementing way of detailing 'how' is the degree to which a stakeholder also is awarded the role of actor. The discussion in section 3.2 led to

the suggestion that this could be described by three related but distinct concepts: type of participation, level of influence or control, and type of control (see table below).

Type of participation	Level of influence or control	Type of control
no participation	no influence or control	
kept informed	very low influence or control	reactive
evaluate (consulted, but not deciding)	low influence or control	reactive
approve	medium influence or control	reactive
direct	high influence or control	proactive

The discussion of 'consequences' in section 3.3 concluded with an identification of a framework for analysing and discussing intentions, actions and consequences. The project manager's patterns of communication could help or hinder the development of principles that would be viewed as appropriate, that would be understood, and that would be accepted (see Figure 3.35). Appropriate is a combination of providing an accurate description and filling a need. Each of the three demands is meaningful only in relation to stakeholders. It is stakeholders who will perceive the system as more or less appropriate, it is stakeholders who will understand it well or poorly, and it is stakeholders who will accept or not accept it.

Accepted

Understood

Appropriate
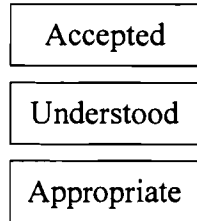
Figure 3.35 Three demands on a successful system

4 Related published case studies

In this chapter I present a number of published case studies that I will use for comparison with my empirical studies. The focus here is on the accounts of the empirical observations, rather than the analyses that these other researchers have made on the basis of their observations. For these researchers, the patterns of communication have not been their primary focus. My criteria for selecting cases have been that they in some respect concern the change of principles of management accounting and control, that they contain a description of the change process, and that this description has sufficient detail concerning communication between stakeholders to be of relevance to the present study.

In section 4.1, I have collected a number of brief accounts of cases involving change of management accounting principles, of economic culture, or of information systems. These cases each describe processes in separate organisations (mainly British and North American). In section 4.2, I present a résumé of a number of cases of development and implementation of principles of management accounting and control, all performed within one large Swedish organisation.

The cases provide a spectrum of approaches to communication in projects, with differences in attention to different stakeholders, differences in stakeholder participation and communication with stakeholders. The collection includes successful as well as unsuccessful projects.

4.1 Management accounting change and information systems development

In this section I present my summaries of a number of case studies of North American, British, and Israeli organisations. I have collected most of the cases from publications with an accounting or information systems

focus. The issues highlighted in the cases differ. Each case taken separately does not cover all aspects of the patterns of communication and their consequences.

4.1.1 Management accounting change in a bank

This case provides an example of a drawn-out process of management accounting change, initiated by information user dissatisfaction with the existing management accounting data. It started with projects carried out by accounting experts with little participation from others, leading to the creation of systems with little impact. Information users began to react against the principles embodied in the system only when they eventually tried to use the reports produced. The accounting specialists then tried to educate the users, and gradually a productive dialogue between accounting specialists and information users developed. Based on this dialogue, the management accounting system eventually evolved (by modifications of principles, data and mutual development of knowledge) into an interaction between production and use of accounting data that began to affect the thinking and behaviour of information users.

Cobb, Helliar and Innes[157] reported on the process of refining the management accounting and developing new principles of costing and putting them to use. Their object of study was the UK-based division of an international bank, and they studied the process over five years.

The initiative to change came from department managers who were dissatisfied with not being able to determine the profitability of different products, or even the costs attributable to their own department. "Increasingly, managers wanted to know the costs for different products to assess the profitability of the various markets, and it was this pressure from the managers which was forcing the accountants to at least think about allocating costs to products."[158] The accountants controlled what was reported and how, but the costing initiative was prompted by information needs felt

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[157] Ian Cobb, Christine Helliar, and John Innes, Management accounting change in a bank, *Management accounting research* 1995:6, 155–175

[158] Cobb et al, 1995, p. 162

by management at department level. The costing principles[159] then seem to have been developed by the accountants as a rather separate, logical exercise requesting little input from the managers or others, but accountants did investigate operations ("Fact finding"[160]). The initial focus in the costing development was on product costing rather than on cost management. The increasing sophistication of the management accounting represented a shift in the management of the bank and neither accountants nor managers knew how to handle it initially. In the second year of the process "they were all still learning".

4.1.1.1 Large personal differences

More than once in the case description, it is pointed out that managers' reactions to reports and to the increased focus on management accounting varied between individuals, and to some degree over time. Use of reports: one manager started using the reports to increase cost consciousness while another manager received the reports for years without understanding them (or trying to, or believing in them, or whatever). Benchmark reports: some managers found they were performing well compared with competitors. Others looked at the same report and drew the conclusion that they performed badly.

4.1.1.2 Questions came with usage

During the fourth year of the process, managers started using the product costing reports regularly. When they did, they also began to question the cost allocation principles. This was two years after the principles were developed and some time after reports started appearing. To some extent, the questioning resulted in modification of the principles.

4.1.1.3 Increased cross-functional communication

An important development was that Financial Control had more and more contact with people outside their department as they tried to produce more information on activities and costs. This was followed by them actively trying to teach managers to understand the reports they (Financial Control) produced. The level of informal contacts also increased. Financial Control as well as managers judged the increased level of discussion as a major

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[159] The authors talk of 'methodology' to refer to what I term principles.
[160] Cobb et al, 1995, table on p. 161

(and positive) change. The accountants learned about the business operations and how the managers viewed the operations. The managers learned about accounting and how the accountants viewed the operations. The discussions helped the accounting specialists develop the accounting system to better serve the information users' perceptions of relevant information, and also increased information user understanding of the system. The information users came to view the accountants as being able to supply useful information.

4.1.1.4 Changes took time and managers' priorities changed

The process of refining the management accounting involved a number of projects. The authors note that these projects fared differently. Few projects were completed according to their initial schedule. A project was discontinued when two of its key members were promoted to posts abroad. Projects that continued did so under changing priorities. A project that was considered top priority when initiated could quickly move down the rating list when other areas needing attention were identified. The life and death of projects surprised the authors more than it did the bank's top management. The top management saw that the process was leading to increased cost consciousness and accepted that changes took time.

4.1.2 A financial information system at Golden Triangle

This case provides an example of a change in the accounting system developed and introduced top down. The change decreased local discretion and resulted in local resistance, but was carried through despite this resistance.

The article by Markus and Pfeffer[161] discusses the difference between power distribution consequences of new systems and power distribution in existing organisation and its consequences for the resistance to or ease of implementation of accounting and control systems. One example used in

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[161] Lynne Markus and Jeffrey Pfeffer, Power and the design and implementation of accounting and control systems, *Accounting, Organizations, and Society*, 8:2/3 pp. 205–218, 1983

the article is the implementation of a financial information system at Golden Triangle Corporation, a large, divisionalised industrial group.[162]

Headquarters initiated the use of a new financial information system[163] in the largest division. This new system gave headquarters accountants access to divisional accounting, whereas the divisions previously had used their own accounting systems and only reported summaries to headquarters. This had given them an opportunity to check and account for figures that were likely to attract the attention of people at the corporate level before sending the reports to the corporate accountants. The database containing the accounting transactions of the new financial information system was under the control of the corporate accountants, and they were thus able to produce reports and study the details in the accounting as soon as transactions were entered.

The local accountants resisted the new system for years, complaining about the technical performance of it, pointing at inaccuracies in the reports derived from it, and so on. The response from the corporate accountants was to establish task forces that investigated and corrected alleged technical problems, and to force the local accountants to discontinue using their old accounting systems.

4.1.3 Bringing cost-consciousness to the mutual insurance company

This is an example of a project, initiated by a new chief executive, aiming at a substantial change in attitudes and behaviour. The project manager saw speed as important, and viewed the process of developing the new principles as a technical task with little lasting importance for the resulting system. He carried out the project as a specialist enterprise with very little attention actually paid to the perspectives of those outside the project organisation, ensuring neither support from higher level management, nor interest from information users. The resulting system was resisted by the information users, and the top managers did not jeopardise their credibility by pressing the issue.

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[162] The study was performed by Markus and is reported on p. 210 ff. in the article.

[163] It was intended for external reporting purposes as well as for managerial decision-making.

Knights and Willmott[164] describe a failed attempt to introduce cost-consciousness in a mutual insurance company by developing and implementing management accounting and control systems.[165]

On the initiative of the non-executive board of directors, a new chief executive was hired. He brought with him the jargon of market demands and cost consciousness. The task of improving the possibility for cost control was given to the manager of the management accounting department. The project moved slowly, and the chief executive intervened putting the task out to tender. A newly appointed head of the finance division brought in consultants who had performed a similar task at his former workplace. The consultants concluded that the project needed far more resources than it had previously received, and that it would take a year longer to complete. The new project leader (a qualified accountant) and a member of the steering committee came from the consultancy firm. The other members of the steering committee were the finance manager, the head of management accounts, the head of data processing, and a representative of the mainframe supplier. The project team members were three trained accountants, a member of Operations and Methods, plus support from members of the data processing department. (*No user representatives at any level.*)

The project leader started out by sending letters to divisional and departmental managers asking what they wanted from the system. He received little response. He also held some limited discussions. The project leader viewed the time available for development as severely restricted, and believed that the flexibility of the accounting package would allow modifications at a later date. Instead of trying to find ways of developing the communication with the information users, the project manager decided to move on to the design stage. The consultation with the primary information users – the departmental managers – was very

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[164] David Knights and Hugh Willmott, 'It's a very foreign discipline': the genesis of expenses control in a mutual life insurance company, *British Journal of Management*, 1993, Vol. 4, 1–18

[165] The material explicitly used in the article comes from interviews with the chief executive, the project leader and with the manager of the management accounting department, but the researchers state that they have interviewed most of the senior managers, managers at all levels, (in total 50 interviews) attended meetings (not least at board level) and conducted quasi-participant observation. They have also administered a (lengthy) questionnaire to the 1100 head office employees, achieving a response rate of 80%.

limited, and "general reports for the cost-centre managers are really our interpretation of what they wanted". (Project leader statement). Communication between the consultants and company management was restricted to discussions within the steering committee.

The project team developed a listing of expense categories and circulated it to the departmental managers with a request for comments, but few were received.[166] The project manager was not sure that the managers had looked at the list, or that they had understood the implications of it if they had actually read it, but again he decided to move on without attempting to improve communication between him and the information users.

The project leader suspected that the cost centre managers had their own private systems for keeping track of costs,[167] and that this made them indifferent to the content of the company project.

A next step was to apply the principles of management accounting, which the project team had developed, in the budgeting process. There was no commitment to budgeting from the managers, and the project tried to request budgeting input without attempting to enlist co-operation either from the top or the bottom of the hierarchy. The input required was 20 times more detailed than according to the previous principles, and the request for input was not accompanied by any attempts to educate the department managers or to provide examples of how the principles could be applied to their respective departments. The department managers did not comply with the request for input according to the new principles.

The only proponents for a new approach to cost control were the chief executive and the finance director, but in the face of the resistance, they did not want to jeopardise their credibility by trying to impose a new view of expense control on the unwilling members of the organisation.

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[166] A comment later in the process to the project manager on how to check the quality of the information system was 'get it up and running and see what happens, and we can see where the holes are...'

[167] Cf. Preston (1986) who found that the managers he studied typically developed private information systems. (See p. 106 above.)

4.1.4 An attempt to change an embedded cost accounting system

This case provides an example of an attempt to change the existing cost accounting system in response to the information user opinion that it was becoming obsolete. The process started out with general discussions in a cross-functional committee, but then became an internal accounting department venture. The information users, who had no accounting experience, did not take the initiative to involving themselves in the projects, and the project managers did not attempt to establish communication with them. After several years, the process had still not resulted in either a new cost accounting system or a dialogue between accountants and information users concerning new accounting principles.

Bruns[168] performed a field study[169] in one division of a company to study how they changed their cost accounting system. The attempts to change the cost accounting spanned a number of years.

In 1983, a Performance Measurement Committee, headed by one of the general managers of the division, sought to establish performance measures for all departments in the division. The committee's work did not lead to major changes in cost reports. (Neither the composition of the committee nor the work of the committee is reported on in the article.)

In May 1984, a twelve-member Accounting Resource Committee was established. It consisted of department managers, superintendents, a division assistant general manager, and staff personnel. The division director of accounting served as chairman. The mission was to specify the outputs of a reporting system that included financial and non-financial information to be used by all levels to manage the business. The committee met twenty-four times during a twelve month period. They drafted an outline

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[168] William Bruns, A field study of an attempt to change an embedded cost accounting system, in William Bruns and Robert Kaplan (eds) *Accounting & Management: field study perspectives*, Harvard Business School Press, 1987

[169] 23 persons interviewed between 1 and 16 hours each (a total of 89 hours) at 7 visits from February 1985 to September 1986 (once a quarter). Three plant tours and written documents were used as additional sources as background material and for triangulation.

of a final report, but never produced the report. According to a committee member, they never discussed or developed any process for putting together a new cost accounting system. Neither did the committee present its conclusions to management outside the accounting group. There is no evidence that the group had any success or impact on the reporting systems.

Many managers complained of unavailable or unusable information on costs,[170] and in late 1984 the Division controller initiated two projects in his department to define a dictionary and a book on a generic cost system for cost centres. From two to four people worked on the two projects, which were completed (behind schedule) in July 1986. They also developed a time line for the development of a cost system. The plan bears little evidence that any non-accountants would be involved in the development. Division management outside the controller's staff had not reviewed any elements of the new system at the time of Bruns' study (last interviews in September 1986). Top management showed neither support nor understanding for the time and effort required. Both the director of accounting and the controller accepted early retirement (as part of a per-sonnel reduction scheme) during the first half of 1986. The new controller had not been previously involved in the cost accounting system process.

According to Bruns' analysis, the accountants took pride in the existing system, and therefore wanted the new system to be as perfect as possible, and capable of answering all questions. As a consequence, they rejected the idea of standard applications, and at the same time doubted that outside consultants could be of use in creating this new system. Divisional managers were not trained or experienced in accounting and had not involved themselves in the effort to create a new cost accounting system. The accountants could thus slowly continue to perfect their ideas of the new system on their own.

4.1.5 Resistance to accounting change

This case provides an example of a management accounting and control project conducted by the project manager according to his central level view of appropriate accounting information, against the explicit standpoints of local unit managers and with-

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170 The existing systems had been in place for 30 years.

*out firm support from higher level managers. The project man-
ager obtained formal consent for the project at a high level in the
organisation and then used this to legitimate his design choices.
He debated with local information users, not to understand them,
but to tell them that his view was superior and that the new ac-
counting system would be valuable to them. They responded with
suspicion and resistance. The formal consent the project man-
ager had obtained earlier was not based on active support, and
when the two top managers who did support the project dis-
appeared, the project manager left and the project was
abandoned.*

Scapens and Roberts[171] recount a case where the design and implementa-
tion of a management accounting and control system was carried out in
such a way that it was resisted until discontinued. The case Omega plc
describes a pilot management and control project in a formerly very pros-
perous company where cost consciousness had not been imperative for
success. A newly appointed financial manager and a project manager
(both accountants and new to Omega) started a project to create account-
ing that was uniform across units within a division. The purpose was to
make accounting information more intelligible to central staff and manag-
ers and to make sure that the accounting principles used in the units were
not faulty. (Large stock losses had been attributed to poor accounting
practices.) Unit managers were also dissatisfied with the present state of
accounting information, but the project manager took the central view as
his starting point. He performed a preliminary study and concluded that
the production control system needed to be reformed in order to produce
relevant data to feed into the accounting system. Relevant data, according
to his experience, have to originate on the shop floor.

External consultants found two possible application package candidates,
and one of them was selected, although it needed substantial modifications
in order to suit Omega. The project was becoming far larger than was
envisaged when the project manager was appointed, and he felt a need to
acquire authorisation to continue on the new track. Expecting resistance
from unit managers he held private meetings with each director, obtaining
their consent for the path outlined, before presenting his ideas to the divi-

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171 Robert Scapens and John Roberts, Accounting and control: a case study of
resistance to accounting change, *Management Accounting Research*, 1993 pp. 1–32

sional management advisory committee – a body consisting of the direc-
tors and the unit managers. At the meeting he presented the proposed sys-
tem as a service to the unit managers, a service that would enable them to
exercise better control. The signal he sent by first securing the directors'
consent was that the system would be implemented no matter what the
unit managers said. [Authority could mean that an individual who is sub-
ject to another's power believes that the exercise of that power is
legitimate. Alternatively it could mean to be authorised by one's superiors
to do something. The authors conclude that the project manager needed
both. In terms of Giddens he used the backing as a resource in his rela-
tions of power, but would still have to legitimate (sell) the project to the
units. – (The authors' analysis.)]

The unit managers viewed the proposed system as a 'distant' system,
tailored to the central information needs, rather than a 'local' system tailored
to their own information needs.

Production control meant different things for the project manager and
the unit managers. The project manager viewed production control as
something to be achieved through the use of better accounting systems,
stressing the financial aspects, while the unit managers saw it in non-
financial terms; controlling the throughput of jobs, ensuring availability of
materials, etc.[172] The new accountants wanted comparable information
across units and proposed common systems. The unit managers saw their
own individual needs and wanted systems tailored to meet these. The
project manager argued that they would come to realise that they needed
management accounting data defined the way he proposed.

The previous financial controller, now general manager of a unit, could
accept the idea of a consistent costing, as he felt that costing principles
need not differ too much between units. Production control, on the other
hand, was something that would have to be unique to each site to be func-
tional. He had several debates with the project manager over the differ-
ence between consistent and common systems, where he saw the project
manager as advocating common systems. (In his view, it would still be a
question of common systems if the trial sites were used to construct some

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[172] These views on what constitutes useful information are similar to the observations in
the large study on use of information by McKinnon and Bruns (1992), see p. 107 above.

standard applications which would then be forced on the non-trial sites, even if there were a number of standard solutions.)[173]

The project manager used the board decision to force the project forwards. "Well look, the decision has been taken at the board level, we're going to do it, play the game."

The production control systems project did not arise out of a shared understanding of the need for improved production control in the operating units. Thus the divisional accountants had to legitimate (or sell) their understandings. This they managed to do to some extent at board level, but not at unit level.

The main pilot site described had not volunteered to be a pilot, and in addition felt that the divisional accountants did not understand production problems. The pilot unit had previously tried to devise production control systems, but these attempts had been thwarted by the central information systems department[174] (*possibly because the central department saw local development as eroding its role – the authors' analysis*) and then by financial restrictions from the divisional top management. There was also a suspicion that the interests of a divisional project team would not coincide with the interests of the unit. The project team members kept on stating that they wanted to design systems that would be useful at the local level, but in action did not manage to disprove the suspicion held at local level that the systems would instead be tailored to central needs.

In addition, local actors felt, based on experience, that a project team from divisional staff could appear on the scene and then walk away without taking responsibility for the continued operation of their creation, and could blame local operation as the cause of poor system performance. At the unit, on the other hand, the person attempting to create a solution would be stuck with it and would have to make it function because his integrity and standing would rest on whether or not the system worked.

The project manager, on the other hand, saw resistance against the project as irrational and used hierarchical power to carry the project to implementation. He leaned on a formal decision obtained in a way not

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[173] This observation shows that the different views are not necessarily the result of a difference between accountants and unit managers per se, as this unit manager was an accountant (who in addition had worked at the corporate level). It is rather a question of understanding the operations well enough or a question of positional perspective.

[174] "The site personnel were very aggrieved because they had tried to do the work, but had been blocked on successive occasions." p. 23 Scapens and Roberts (1993)

viewed as legitimate by the unit managers. It rested on consent rather than support from most superiors. When the divisional manager, who had supported the project, died and the financial manager moved, it did not take long before the project manager moved too. The production cost control project was then abandoned.

4.1.6 Successful development and implementation of an accounts payable system in a redesigned accounts payable function

This case provides an example of a project leading to the creation of a reportedly successful system. The project included redesign of business activities and was carried out in a top down manner. System operators did not participate in the project, but were recruited and trained in time for implementation. The project started out with the consent of all divisional comptrollers affected. Most divisions were also represented in the project team, and the conclusions of the project team were submitted for approval by the divisional controllers, general managers and personnel managers. In addition to this focus on the management level, the project was conducted with attention to continuity in the project team throughout the process, including the implementation stage, a focus on informing stakeholders correctly, and a readiness to handle problems when they appeared.

Oz describes the process of analysis, selection, and implementation of an information system and how the project team managed to avoid a number of typical failures.[175] The process followed a rather classical set of stages: feasibility study, definition phase, selection phase, and implementation.

The initiative for the project was taken at the top without consulting lower level managers and employees. The Group Director of Finance saw advantages in centralising and reengineering the accounts payable function in the Group. At a meeting with all Divisional Comptrollers he

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[175] Oz, Selection and Implementation of an Information system: A General Motors Case, *Omega* 20:3 (1992), 283–293

obtained a consensus decision to start a project to investigate the possible reengineering.

To make the project team competent and representative, it was staffed with representatives from eight of the ten divisions [functional specialists (Accounts payable)] plus one representative from the Group's information system subsidiary. The team investigated the current operations in all divisions by means of a survey. Based on their own knowledge of disbursement activities, they then used the survey data to estimate the expected cost savings from centralising the function. They also visited other major manufacturers to study the accounts payable arrangements in these companies and to compare them with their own vision of a centralised function in the Group. The next step was to survey existing software applications. This survey was also performed by the project team based on their views of important functionality and system features. This survey resulted in a list of software candidates.

The definition phase consisted of further discussion in the project team to arrive at requirements to be fulfilled by the ultimate system.

The selection phase consisted of evaluation of the system candidates against the list of requirements. This evaluation was also performed by the team. It resulted in five finalists of which one was considered the winner. The recommendation the project team arrived at was reviewed by the Group Director of Finance and the ten Divisional Comptrollers. Their consensus was that the recommendation should be accepted. This decision was also approved by the General Managers and the Personnel Directors of the divisions.

An implementation team was formed. The core of this team consisted of some members from the previous project team (to provide continuity), one Materials Management representative, and one representative from the Group's information system subsidiary. For each divisional implementation, one or two divisional representatives from the division in question became a temporary member of the team.

The implementation phase consisted of a number of stages: initialisation, organisational start up, system start up, and divisional implementation. One pilot conversion was followed by the others, overlapping to some degree. (Actual divisional implementation did not overlap, in order to allow for learning and to keep the focus of attention on one implementation at a time.) The team designed the conversions. Ahead of each conversion, suppliers were informed of the consequences it would have on

them. Personnel were trained and transferred to the new centre which was to replace the previous divisional handling of the accounts payable function.

This top down approach and the self-sufficiency of the project team could have been expected to generate resistance or resentment at lower levels, but at the new centre it did not. One reason contributing to the success, but not touched upon above, is that only personnel willing to move to the new centre were employed there.[176] Another reason is that the project had firm management support, and that the comptrollers had committed themselves to the project by the two consensus decisions. The composition of the project team gave representation to those levels of the organisation that would not be displaced by the reengineering effort. Given these circumstances, the careful planning of the project, including the aspects of learning and continuity in the project team, and the manner in which parties affected by the change were informed of its consequences, all seem to have contributed to the smooth implementation with its lack of surprises. Suppliers, central and local management, as well as employees at the new centre, are all reported to be satisfied with the new system and routines.

4.1.7 Successful development and implementation of a company-wide information system

This case provides an example of a project conducted with a high profile in the organisation. It had top management support from the start. The project manager saw the successful implementation of the system in the organisation as his goal. He focused on user participation throughout the project, devised multiple fora for extensive communication with users, and paid attention to user sentiment. The project led to the creation of a reportedly successful system.

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[176] One consequence of this approach was that all employees at the new centre were in their twenties or early thirties.

Borovits and Neumann[177] contribute an example of a successful information systems project. The information system in question is an airline reservation system with planning, costing and control features.

Top management saw the information system as a strategic resource for the company, and committed resources, participated in various activities, and provided encouragement.

The project manager and his team saw the successful installation of the new system into the organisation as their main goal. As an important part in achieving this, he involved the users as much as possible from design onwards. This included a focus on user information needs in the design phase and user approval of all stages. As many affected users as possible were involved and the project manager took care to involve the formal as well as the informal leaders of groups subject to change. During design, training, and implementation he solicited user suggestions and provided feedback on having taken heed to them. (During implementation, feedback on (user initiated) changes and modifications were communicated to all users, and their comments on the changes were requested by the project team and acted upon.) According to the authors, the way the project manager handled the users gave them a feeling of ownership and satisfied their personal and social needs.

The design was performed in stages: preliminary analysis, feasibility study, system analysis, system design, construction, testing, training, conversion. Installation was carried out successively to allow employees time to adjust to using the new system: 1) training 2) 1st live installation 3) 2nd live installation, 4) integration of two first databases, 5) roll-out to all reservation offices. The details of the implementation and its progress was explicitly communicated to all employees.

During the entire process, periodical employee attitude surveys were conducted to make sure that the employees were not discontent with the change process.

The information system was successfully implemented, and has had considerable impact on the company and its competitive position.

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[177] Israel Borovits and Seev Neumann, Airline Management Information System at Arkia Israeli Airlines, *MIS Quarterly* 12:1 1988, 127–137. The case is an inside story. One of the authors was director of planning and information systems at the company described at the time of writing the article.

4.1.8 An activity accounting project in the electronics industry

This case provides an example of a project started with top management support and the intention to develop a better system of management accounting and control for the organisation. The project team, however, came to interact mainly with functional colleagues and focus on aspects relevant for the functions they represented. They spent little effort on developing support for the system they created. Due to time pressure experienced by the project team, the resulting system was introduced with no prior education period, but the system survived and eventually gained acceptance. However, it had markedly less effect in those line functions where contact with the project had been scarce.

George Foster and Mahendra Gupta report on the development and implementation of activity accounting in an American electronics manufacturing company.[178]

The activity accounting initiative came from a materials engineering manager who developed a manufacturing cost model. At the same time, a task force was striving to promote design-for-manufacturability. This task force was headed by the R&D/product design manager and the manufacturing manager. The task force was expanded to include the materials engineer and representatives from accounting and manufacturing engineering.

The task force decided that the accounting system should be used to signal the relative costs of design choices to the designers. (An alternative considered was to give the designers specific guidelines on how to design products.) The costing model developed by the manufacturing engineer was viewed as interesting, but too complex, and a cost driver task force was set up to adopt a version of activity accounting as the internal accounting system. This task force consisted of the materials engineering manager, one representative from accounting and one from information systems. The R&D/product design group was not represented on the

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[178] George Foster and Mahendra Gupta, Activity accounting: an electronics industry implementation, in *Measures for Manufacturing Excellence*, ed. Robert Kaplan, Harvard Business School Press, 1990

costing task force, and at no stage was marketing represented on either the costing or the design-for-manufacturability task force.

The costing project team included enthusiasts, but they did not start with broad-based support for activity accounting, nor did they focus on developing one. The project was conducted with low visibility in the organisation and with limited resources. A team member characterised it as a "skunkworks project". However, the resulting accounting system survived the initial period of low support in the organisation, and 10 months after implementation the number of supporters had increased considerably.

The objectives listed in the internal presentations of the activity accounting system identified manufacturing, R&D, marketing and finance as beneficiaries of the new system. Manufacturing was the only line function represented in the project team. To the extent that the team members communicated with people in the line organisation it was mostly with those in manufacturing. Manufacturing personnel also had the largest influence on the choice of activity areas and cost drivers, but accounting and design personnel managed to limit the number of activity areas considerably compared with the level of detail that the manufacturing group wanted. Accounting also vetoed the manufacturing suggestion to have more than one cost driver per activity area.

The leader of the project team was not assigned full-time to the project, and other tasks consumed large chunks of his time. This slowed the project down, as did the downsizing of the accounting staff that was taking place at the same time. As a consequence of the delays, the project team decided not to run the new system in parallel with the old one as planned, but to make an instantaneous change of systems. The educational period thus lost was not compensated for through other educational activities. During the first six months, education consisted of presentations and one-on-one assistance. Many of those interviewed considered education as an area where considerable underinvestment occurred in the initial stages of the implementation.

The researchers report that it was generally agreed in the company that it would have been preferable to have representatives from all functional areas affected by the accounting change as members of the project team. This would have given an opportunity to influence the accounting development as well as an increase in the "buy in" toward the accounting system.

The product design group played a limited role in the development of the costing principles as well as in the implementation of the accounting system. Some of the designers came to fully endorse the activity accounting concepts and eventually found the accounting system useful while another group of designers did not "buy into" the system. There was even a case of a designer who viewed the new accounting system as an inappropriate attempt by manufacturing to affect the behaviour of the designers.

Most marketing personnel interviewed noted that they had had limited involvement in the accounting project and that the implementation of the accounting system had had little effect on their jobs, with the exception of those who sold the products internally to other divisions. They used the new costing scheme to explain to their customers how changes in product specification could reduce the quoted cost.

Manufacturing was the function most involved in the design of the principles, and the manufacturing managers were the group which was most enthusiastic about the new accounting system.

Despite the fact that the accounting project failed to involve all functional areas, the activity accounting system it produced helped create some interfunctional communication. This increase in communication was generally acknowledged as a positive development by those interviewed by the researchers.

This case demonstrates how the enthusiasm of a few may be sufficient to change principles of management accounting and control. It also presents an illustration of participation and non-participation of different functional groups. Non-participation does not preclude adoption of a good product by all. This system survived, and some designers as well as some marketing personnel came to appreciate the new accounting system. The point of participation demonstrated here and in the previous case is rather that some of the resistance towards a system stems from the process of developing it rather than from the actual product, and that a deliberate attempt to identify and involve (socially) influential people can be effort well spent.

4.2 Developing management accounting in the city of Uppsala

Olov Olson described the development process of accounting systems in a city[179]. His account has many parallels to the development processes I have studied, and I therefore choose to present a summary of the process he describes. The summary of the process provided in this section contains a number of projects: the top level project (subsection 4.2.1) and three local projects (subsections 4.2.1.1, 4.2.2 and 4.2.3). Connections between local and central developments, and an epilogue presenting the results some years after implementation, form the last two subsections (4.2.4 and 4.2.5).

The top level project (subsection 4.2.1) was not conducted in collaboration with the local units, despite the project manager's explicit intention to develop a dialogue with these local units. He believed that forcing a centrally designed solution on the local users would not lead to a sustainable result. The existing climate between the central and the local level was, however, not one of co-operation, and neither the central team members nor the stakeholders in the local units took the initiative to establishing a dialogue. Eventually, the local level projects took over the initiative, still with little communication between the central and the local level, and determined much of the direction of the process.

The first of the local projects (subsection 4.2.1.1) is a brief illustration of how a feeling of control may compensate for a lack of quality. The short-term results of that project would clearly have been unacceptable to the local stakeholders if they had not brought it on themselves.

The second local project (subsection 4.2.2) gives an illustration of how it was possible to establish a dialogue between accountants and other stakeholders on project team initiative. The two accountants forming the local project team were determined to overcome the scepticism of the information users and those described by showing in action that they wanted to design the new system based on these stakeholders' perspectives. By demonstrating that they were interested in the work and per-

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[179] Olov Olson, *Ansvar och ändamål - om utveckling och användning av ett kommunalt ekonomisystem* (in Swedish with an English summary. English translation of title: Responsibility and objectives for the use of resources: on development and use of an accounting system in a city), Doxa, Lund, 1983

spectives of the local stakeholders, at all levels, they managed to develop a dialogue that enabled them to design principles that were acceptable to those with whom they discussed. The more concrete and applied the proposals became, the more people they were able to involve in the discussions. In the end, the principles were successfully applied, and appreciated by local officers as well as by politicians.

The third local project, presented in subsection 4.2.3, illustrates a process similar to the preceding project. Again, the plan was to reach and involve as many of the local stakeholders as possible. In one division, a project team member actually participated in the work of groups of information users to gain their confidence and to understand their situation from within. He then initiated a dialogue with them on which to base the design. This approach worked even with those who were initially resentful or even hostile. In the other divisions, project team members who thought they knew the divisions performed more of the design themselves, and discussed it with top level officers rather than with operative levels. The resulting systems were generally less positively received in these divisions than in the division where the discussion between the project team member and the operative level personnel had been intense.

4.2.1 Start of development effort

The accounting system development process consisted to a large degree in devising principles of accounting and budgeting. A few years prior to the start of the development effort, the administrative unit referred to as 'the city' of Uppsala had grown considerably through the merger of a number of smaller units. The top politician responsible for the finances and the managing director of finance both came from municipal organisations where politicians and officers paid more attention to the principles of accounting and budgeting and the use of accounting information than was practice in Uppsala. The top politician was instrumental in initiating a development effort that he hoped would help stop the need for tax increases. He secured a decision from the politicians that "a co-ordinated development effort to improve the planning and the budgetary process" be started. Shortly thereafter, the managing director of finance was appointed.

A project team was formed of officers from the central accounting department, an accounting researcher, and a senior accountant as project

manager. The director of finance discussed the objectives of the project with a senior accountant who had been working with the top politician, and with an accounting researcher who had specialised in a form of accounting that they were all interested in. The director of finance and the accountant also discussed how the project should be conducted. They agreed that the purpose should be to improve information to the different political bodies, to design planning and budgeting that would allow greater freedom of action in the different service departments (roads, social welfare, etc.), that planning in the departments should be based on rules and conditions decided centrally, and to design efficient routines for the current work. The Executive Committee of the city would act as steering committee, with the director of finance as responsible for the execution of their decisions and with the senior accountant as project manager. The project team would include members from the accounting department and the researcher, but they realised that they would need to be flexible in order to capture all the knowledge that existed locally in the organisation.

The Executive Committee accepted the proposal. The project team's intention was that the officers in the accounting department should each work with 'their' service department. The researcher held seminars with accounting department officers describing and explaining the kind of accounting the project team was aiming at. This was followed by a one-day seminar with people from the accounting and planning departments and accountants from the larger service departments where the researcher presented experiences from organisations that had used this kind of accounting, and a hypothetical, general 'objective structure' for a city.

In a report to the service departments and their political directorates the project manager wrote: "It is not possible to have a central group that designs a theoretical system which is then to be forced on the users. We have thus chosen a slow strategy that we think is the only one possible if we want to achieve real results in the long run."

4.2.1.1 Local initiative

Some people in utilities, including the director of the electricity plant, became enthusiastic about the concept. They decided to put it into practice at the beginning of the following calendar year, no more than six months off. This meant that they would not adhere to the project manager's ideas. Instead, they mustered the assistance of a colleague of the researcher and

the software vendor, and by focusing on the technical aspects at the expense of conceptual design (they basically accepted the general structure that had been used as an illustration at the seminar) managed to launch their new accounting system on time. However, they ran into technical problems and could not produce useful reports until late in the autumn. The effort was founded on local initiative, and with considerable determination and much hard work they finally had a solution that was acceptable to them.

4.2.1.2 Preliminary studies within the main project

The next step in the main project was that 20 officers from accounting and planning were engaged to perform preliminary studies of their respective service departments. In the accounting department, a commonly accepted belief was that the new objective structure should give the politicians the information they needed. Another was that this structure should be developed in a "dialectic process". Yet most officers sat at their desks designing their proposals. The project team discussed how to make the people in the service departments more interested in participating in the development process. A conclusion noted in the minutes of a project group meeting was: "We must not run over the service departments, they must approve our proposals before we proceed."[180]. The preliminary studies were not completed on schedule, and the intended report to the executive committee was postponed to a later, unspecified date.

4.2.1.3 The new principles: a creation by central staff

The development of the principles of accounting was performed by a small team in the accounting department. They based their design on information provided by investigators, also located at the central accounting department. These investigators did not find (or did not choose to find) time to meet people in the service departments to discuss the activities that the objective structures were intended to depict. To the extent that they did discuss with representatives of the service departments, these representatives were accountants and in a few cases high level officers. As a consequence, the discussions in the accounting department were rather abstract.

One complication involved a parallel task the investigators had which was to contest the budget proposals from the service departments and to

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[180] Note the positive phrasing!

request cutbacks. This task did not improve the co-operative climate between them and the departments, and it also required a knowledge of the actual activities in the departments that they realised they did not possess. Several of them became disillusioned with their work and resigned from their posts. The project manager and his team started to wonder if it would be possible to continue with the project.

4.2.2 Local development at the road department

Some officers in service departments had taken an interest in the project and wanted to continue. People in two technically-oriented departments pushed for a continuation.

4.2.2.1 The development in the road department

The accounting officer who had been working with the road department had held contact with it for several years and had developed a good working relationship with the senior accountant of the department. He had managed to produce the descriptions and suggested objective structures that the project manager had requested of him, but had received the comment that it was not 'political' enough – a comment he had not understood. He had also found difficulty in co-operating with several of the engineers in the road department, who only showed slight interest in the new accounting system. At the same time, he had noticed that they envied the utilities that ran their own accounting system and could design their own reports.

The senior accountant at the road department asked the project manager for help in developing his accounting system. A colleague[181] of the researcher in the project team was hired to work with the road department. He commenced his work by walking around with the senior accountant, meeting people in the organisation. He noticed a negative attitude among managers towards the accounting project, and a wish for increased freedom of action among engineers.

4.2.2.2 Soliciting the participation of local non-accountants

The accountant and the researcher decided to discuss the objective structure the senior accountant and the accounting department officer had

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[181] The author, Olov Olson

developed with some leading engineers, and adjust it according to their suggestions. Then they would develop the budget proposal that the project manager had requested by discussing each account with engineers. This exercise provided a number of people with a concrete understanding of the intended system and of what kind of information it would be capable of producing. Still, some people in the road department resented the accounting system as an attempt at increased control from the central accounting department.

When the accountant and the researcher had completed the budget, they embarked on a wide information drive, trying to reach as many officers as possible. They started with the general manager of the road department and his department managers. In the next round they took the department managers and their section managers, and so on. Some were negative, but there was always someone in each group who showed an interest and whom they could discuss with. The turning point was when they discovered the enthusiasm they generated when they showed an interest in the actual work of the engineers. "There was no happier person than the water and sewage manager when he was allowed to draw his systems and how they worked; with pipes, pump stations, filtration stations, etc. The same was true for the road manager."

4.2.2.3 Interactive design of new principles

Through the combination of information meetings and private discussions, they were told and shown the information that people used and how they produced it (normally through manual routines), and the problems people experienced with budgeting, costing and control. Based on the information they gathered, the researcher and the accountant designed accounting structures, which they discussed with the engineers. Based on these discussions they made modifications, discussed with the engineers again, and repeated this procedure until both parties were satisfied.

One department provided a problem. The manager of that department showed no interest in the new system. He thought that accounting and budgeting was already too much of a bother. As a consequence, the people in his department came with very few comments. The researcher and the accountant found the lack of disagreement very discomforting. They did not see it as a sign of acceptance of the principles.

4.2.2.4 Central scrutiny versus local privacy

There was also a disagreement between the project group in the accounting department and the people in the road department. At the central level the accountants were requesting that physical measures be included in the new system, but at the local level, where they had a rich supply of statistics in physical terms, they were not in the least inclined to share this information. Including it in the new accounting system would mean disclosing it to accountants at the central level, and at the local level they believed that this would lead to more attempts from the central accountants to interfere with how they ran the road department.

4.2.2.5 Soliciting external perspectives on the design

In addition to the seminars which the accountant and the researcher held at the service department to present and discuss the accounting system design, they also held seminars with the central accounting department and with other service departments. Furthermore they visited the public utilities to learn from their experiences. This provided the accountant and the researcher with a large net of contacts who provided many opinions and questions regarding the proposed design. In less than six months, they had what they regarded as a well-founded proposal, and they documented it in a report.

They held several presentations for the politicians in the road department but met relatively little interest. The politicians were mainly interested in the number of employees and personnel costs. Some politicians also signalled that they did not want an accounting solution that would mean extra work in the road department.

4.2.2.6 Co-ordinating with the other units

Late in the year several people from other departments contacted the accountant and the researcher to discuss the work they had performed at the road department. Two departments, the education department and the social welfare department, wanted to embark on a similar development, and they both wanted assistance. By now the people in the public utilities had overcome the technical problems with the accounting system. The road department was the first service department to have a concrete proposal for a new accounting system. Therefore, the project management at the central accounting department accepted the suggestion from the

researcher in the road department that the conversion to the new system for the service departments should be postponed for yet a year to allow time for the rather slow development strategy of involving many people.

4.2.3 Local development at the social welfare department

The researcher moved to the social welfare department as a member of the newly established team there. The team was rather large, consisting of the senior accountant and three other accountants from social welfare, two officers from the central accounting department and one from the planning department. The local accountants had asked certain groups of employees to keep notes on their activities for a week to give the accountants a concrete understanding of the work performed in the social welfare department. The accountants had also discussed possible objective structures among themselves to some extent, and the researcher at the central accounting department supplied the team with reports from the social welfare department of another city that had recently developed objective structures. The local accountants were all keen on developing the new principles of accounting, but as the members of the project team could not agree on the adequacy of the initially proposed objective structure, they decided not to start by preparing a budget.

4.2.3.1 Soliciting the participation of the managers in the department

A feature they did borrow from the road department project was the initial effort to reach as many as possible. Just as in the road department they started with the general manager and his department manager, then each department manager and his section managers, and so on. The idea behind the meetings was to present the intended goal and the preliminary ideas of an objective structure for the accounting in the department, and to show the officers in the department that this development of accounting principles would benefit from their co-operation and interest. The message that accounting was to be tailored to the activities performed, and not be a remote activity performed by accountants for accountants, was well received by the officers in the organisation.

The project team had chosen to start with the divisions within the social welfare department that they believed would be the most sympathetic to the accounting development. To the surprise of the researcher and the other team members, the third division, where they had expected the most resistance, turned out to be where they encountered the most direct response. The manager of that division had been positive to the project from the start, and at an information meeting with some districts an officer suggested that the researcher come and work with them at the local level for a while to gain an understanding of the operations 'from within'.

4.2.3.2 Understanding operations from within

The researcher worked with a number of local groups (representing one third of the districts in the division: the other groups were kept informed of the development). In each group he started by explaining the intentions behind the project to the officers and then worked with them for a week, trying to find patterns in their activities. He discussed what he saw with them and discussed what kind of information they actually needed. In some groups there was a degree of initial resentment at the arrival of the researcher, and in one group even strong hostility. He was seen as a representative of the controlling, central bureaucracy. In each case he managed to change the views people held of him, and established fruitful co-operation by showing that he was genuinely interested in their work, their conditions and their views.

4.2.3.3 Designing the new principles

The researcher's experiences at the local level initially provided him with more questions than answers. When he met with the project group, some group members claimed that this was only proof that the division in question was difficult to work with. The researcher found a speaking partner in one of the districts and began to develop an objective structure in dialogue with him. Together they went and discussed their ideas with local groups, but despite adjustments the officers at the local level were not satisfied with the suggested schemes: they wanted even more detail. Finally, the researcher and his speaking partner believed they had found an acceptable solution.

4.2.3.4 Development in other divisions

Development in the other two divisions took another direction. Some members of the team had experience from these divisions. One of them was an accountant in one. The project team members did more of the specification; the suggestions were discussed mostly with top level officers, and only in a few instances with the local, operative level.

4.2.4 Connections between the central and the local projects

The project at the central level was progressing in much the same way as it had started. The discussions revolved around co-ordination and standardisation to achieve a unified system for the city.

4.2.4.1 Discrepancies in views between central and local level

During the spring, a number of project meetings took place at the central accounting department of the city. The researcher grew more and more disturbed over the discrepancy in perspective between the central and the local level. At the central level he sensed a view that the city was a large organisation that could be managed and controlled by the politicians, and that the accounting project would result in the tool that would allow the central accounting department to furnish the politicians with the necessary information. These discussions stood in sharp contrast to the picture the researcher had developed of the work that was actually performed in the service departments and the way people acted at the local level. Doubtful that the project would produce useful results the researcher resigned, but was contacted by the project manager and persuaded to return. He finished his work at the social welfare department by summarising the results in two reports.

4.2.4.2 Preparing for implementation

With less than a year and a half to go to the system change-over date, it was now time to start thinking about implementation. The project team arranged for accountants at central and local levels to learn the new accounting package and all departments were charged with developing a budget according to the new principles. A result of the discussions on local usefulness versus central comparability was that each department

was treated as a separate unit with opportunities for unique objective structures, but the project team constantly advocated strict conceptual clarity in whatever objective structures were devised.

4.2.5 Reactions to the application of the new principles

The work on the budget saw more people involving themselves in the development than previously during the project. The researcher regarded this as a result of the budget being more concrete than the earlier more theoretical discussions. As the budget work continued, the suggested accounting plans started to change as a consequence of the increased knowledge and insights that the practical application of the principles provided the actors.

It also turned out that the accountants at the local level showed much greater interest in learning the new accounting package, and soon became far more adept than the accountants at the central accounting department. Nevertheless, none of the departments used the accounting package as a tool when preparing the budget: they all waited until it had been ratified by the local politicians before entering it.

In the budget discussions at the top political assembly in the city, the politicians gave positive evaluations of the new accounting principles that had allowed them to better understand the budgets.

4.2.5.1 Using and adjusting the new principles

The resulting system was well-received where the project team had held extensive discussions with the local stakeholders and shown an interest in their work and perception of information needs. In the divisions where the development had been more top down, the resulting system was generally received less positively. There were, however, individual differences. A workgroup manager in one of the divisions where the development had been top down realised that she could gain independence and room for initiative if she adopted the new accounting principles. She then became a prime example of positive utilisation of the new accounting.[182]

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[182] This paragraph is based on a private conversation with Olov Olson 27.8.96.

Towards the end of the first year of using the new accounting system, all service departments had adjusted their accounting schemes to some extent. The social welfare department had involved officers down to the local level in major discussions and revisions.

At the beginning of the third year of using the new accounting system, the researcher performed a large number of interviews with politicians and officers in the service departments where he had been working. He noted that politicians and officers alike were positive towards the new objective structures, finding that they corresponded more closely to the activities performed than the previous accounting structure had. In the social welfare department he noted another effect of the new accounting scheme; a large number of officers claimed that the new accounting had changed how people were thinking about and talking about the operations. Monetary discussions and cost/benefit trade-offs had become an accepted part of the language.

5   Case studies

This section contains basically chronological accounts of cases I have personally researched in three organisations. The cases are anonymous so as not to disclose the identity of the people involved.

The cases are written without mention of company name or real names of individuals. Instead of using 'the project manager' I often refer to the project manager as John or Jane. This does not mean that the same individual has been project manager in all cases; the projects have had different project managers. Regarding other stakeholders in the cases, I use organisational position rather than names to help the reader keep his orientation in the organisation described.

5.1   Case F: ABC accounting in all the Swedish production units of a group

At the beginning of 1990, an ABC consultant met with the technical representatives of the top management of the industrial group A to discuss Activity-Based Costing. The production manager of the company saw the concept as sufficiently promising to initiate a pilot project that would try to apply the concept. During the first half of 1990, two people from the controller department at the head office spent their time learning what Activity-Based Costing was. During the second half of 1990, they performed a study of a section of one of the production units and reported their findings to the members of the top management group that had initiated the study. The top management group found the results interesting and decided to implement Activity-Based Costing in all production units in Sweden. A's executive group decided that the project should be performed without the use of consultants. In the spring of 1991, the two people who had performed the pilot project started an ABC project in a component factory. Simultaneously, the two project manager positions were advertised internally in the company. The chief controller

of the components group being studied was selected for one of the positions and started in April 1991. 'John', who had just finished the group trainee program for MBAs, was chosen for the other project manager position and started in June. In July one of the two people who had performed the pilot study left the project and started as Management Accountant for the unit where he had performed the pilot study. The second pioneer moved to After Sales in September.

John spent the summer reading about ABC, attending seminars held by the consultants who had introduced the idea in the company, and joined the 'ABC network for the manufacturing industry'. Through the network the two project managers came into contact with some companies that were exploring the ABC concept, but only found one contact useful. The time before the two first project managers left was also spent learning from them about ABC analysis. The first two finished their first project and had found a method for performing the ABC analysis. The two new project managers were to co-ordinate the implementation of Activity-Based Costing in the other seven Swedish factories in the group. They had not found a suitable ABC tool running on a PC, and therefore a second task was to develop such a tool.

The projects were not intended to be run by the head office controllers as an activity foreign to and separate from the factory. John saw it as part of the corporate culture to strive to have the local stakeholders who would operate the system assume responsibility for developing and maintaining it. An important task of the two project managers was therefore to sell the concept to the factory management
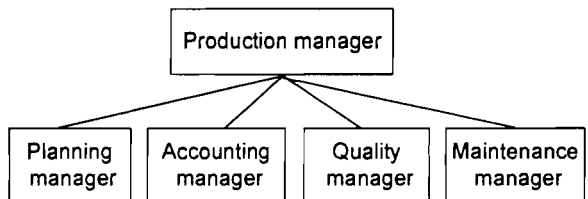

Figure 5.1 Typical factory management team

teams and personnel. The steps in this process typically followed by John and his partner were as follows:

	Activity	Participants
1	Presentation seminar 1. What is ABC? 2. How is the study conducted? 3. Lessons from previous studies	Management team
2	Start forming a project team and discuss when to perform the study	Management team
3	Discuss what section of the factory to start with	Management team
4	Form a project team	Project team
5	Information meeting at the selected section with focus on how the interviews will be conducted	Foremen and production engineers from the selected section
6	Train the project team 1. ABC in general 2. A one-day case study with manual computations[183] 3. the PC tool	Project team
7	Start interviewing with one of the project managers present	Project team and factory employees
8	Continue interviewing without the project manager present	Project team and factory employees

The two project managers did not perform the local projects, but acted as support and discussion partners. They acted as driving forces in the first six steps in the table above, but with the aim of gradually handing over operational leadership to the local project team. John and his colleague contributed the method, the information system and their interviewing experience. By the time John started his first local project he came equipped with a concept of what activity-based costing was, but the specific principles (identifying appropriate definitions of actual activities and cost drivers) were to be developed in each sub-project.

John and his colleague divided the production units between them, and started with steps one and two simultaneously in all production units in order to quickly establish when the main portion of the project could start

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[183] This case was later introduced as internal training at the central controller department.

in each unit. In step three (identifying the section of the production to start with), John regarded the following criteria as important:

- a clearly delimited section
- information needed for ABC costing available
- a high probability that the product costs calculated by ABC would be substantially different from old product costs

The first two points helped simplify the task. The third point was intended to lead to identification of local 'ABC effects' and thereby show the local stakeholders that the effort spent on the project was worthwhile.

5.1.1.1 Project organisation in production unit projects

On the local level a project team and a reference group were formed. In the project team, the local head of accounting and a person from his staff participated. The role of the head of accounting was to support the project team, while his subordinate would work full-time on the project and be the one who performed most of the work in the team. A representative from production engineering and a representative from production completed the team.

The reference group was composed of the production manager and another member of the executive group of the unit, some functional specialists, and John or his colleague. The reference group typically met three or four times during the project.

A typical project took nine months, and John participated on site between one and three days every other week during the entire period. When the project team started to perform interviews without John, he still helped with the analysis of the material and with the PC tool. He also discussed how the project team worked, making sure that the project progressed according to plan. His contact was mainly with the local accountant working full-time on the project.

All sub-projects ended with a presentation to the local executive group. (In one production unit which was quite small all white collar workers were invited to the presentation.) In each production unit, project production costs for the full range of products was calculated according to the ABC analysis. The project team, the reference group and representatives of head office control and accounting were supplied with lists showing activity-based costs and presently used costs, and were asked to comment. Was any cost of a magnitude that implied faults in the calculations? Was

the difference between old and new computed cost such that the new cost was unacceptable to some party? Then the new principles of management accounting and control replaced the old ones.

John and his colleague met and discussed the progress of the projects with their manager and with the chief accountant (their manager's manager) a number of times. These two managers showed an interest in the ABC project, but the meetings were arranged on the initiative of John and his colleague. The objective of the meetings was to keep the managers updated on the development, not to influence the project or take decisions regarding it. John also felt that his manager understood that the project required John's full attention; his manager refrained from asking him to handle additional tasks while the project was running.

At the beginning of the autumn of 1992, the ABC projects in the production units were under way or finished, and the Controller decided that the head office ABC project had served its purpose and should be dismantled. John and his colleague helped the project teams in the last projects finish their task. John had been responsible for the development of the PC based ABC tool. He continued to give support regarding its use to those who needed it even once he had taken up his new position in the controller department.

5.1.1.2 From investigation to implementation in the first sub-project

The project manager sought an accurate and detailed description and understanding of the activities and wanted to get these descriptions from those who had good first-hand experience of the activities. He and the sub-project manager (a local accountant) discussed the operations with a large number of the managers and foremen. They started with the shop manager to get an overview of the operations, then continued with production engineers and the planners. Finally, they interviewed the foremen and talked informally with the workers. To a considerable extent they enlisted the help of one or a few production staff representatives during the analysis phases to have access to production knowledge in the project team.

The project manager was the ABC expert, the sub-project manager was on apprenticeship and should learn to perform the analysis himself, and the production staff member could judge the descriptive accuracy of the new principles based on his familiarity with the operations. The inter-

viewees enjoyed describing their work, and the interviewers and interviewees together explored how it could be viewed in terms of activities and cost drivers. The project manager and the sub-project manager then analysed the activities of the production section and designed a model that described the work performed in ABC terms. The production engineer assisted in determining reasonable cost drivers. They then checked with the production section manager that he saw the model as an accurate description of the section.

After designing the principles the project manager wanted to check that the new principles, and the calculations based on them, were accurate and would be accepted. He and the sub-project manager computed detailed product costs with actual data for the unit and gave them to those who they thought could judge the accuracy and acceptability of the new costing scheme. The people they chose were first the production unit manager and then representatives of head office control and accounting, and a reference group in the production unit consisting of the production manager, another member of the top management team and some functional specialists. This round of evaluation they saw as sufficient to indicate that the new principles and the resulting costs were ready for use: if those who were familiar with the operations, and the accountants at headquarters, judged the new principles as accurate, then there would be no reason to expect that they would not be accepted. The descriptive model they had designed was not challenged. The reactions from the managers were mostly confirming: "Yes, this is probably how it really is", but the analysis also provided them with some surprises: "Oh, is that how much that activity costs?" or "I did not know of this activity."

The project then continued with analysis and design sequentially in one production section after the other. The project manager now participated far less actively, handing over to the sub-project manager and his accounting colleagues. The sub-project manager, in turn, moved increasingly from discussion to focused fact-finding when interviewing those whose activities he sought to describe. The reasons were that the deadline was approaching, and that he felt more certain of what specific input he needed to design the principles. The design phase in the later production sections was also mainly performed by the local project manager and his accounting colleagues with no continuous contact with those described, as they felt that the knowledge they had gathered in the investigation phases was sufficient to design accurate models.

5.1.1.3 Implementing the new principles

John, the project manager, had focused on the production unit throughout the project. When the activity-based costs were accepted by the local steering committee, he considered the process finished. The new principles were applied, with no prior attempt to educate possible information users outside production. The project manager was surprised at negative reactions from after sales, because he had not considered that the changes in computed costs could agitate anyone outside production.

Typical ABC effects are that high-volume products become less expensive and low-volume products more expensive. A product consists of many components, which in turn consist of many articles (see Figure 5.2). On the product level, ABC produced almost no change in cost compared with the old costing scheme. On the components level the changes were moderate, but on the article level they could be quite dramatic.

The production units were not especially interested in costs of articles, components or products. Since there were no marked effects on product level, there were no strong reactions from sales. The article level is, however, important for after sales. Some spare parts became so expensive according to the new costing scheme that they could not be priced according to cost. The first project manager had moved to after sales as controller. He was mentally prepared for these effects, but there were strong reactions from people in that department. John had not given much thought to people 'downstream' from production, and had not planned any specific activity to sell the new costing scheme to that part of the organisation. He was a bit surprised at the reactions, not because they were unnatural given the ABC effects, but because he had not considered the possibility that effects on the article level would upset anyone. In retrospect, he wished he had foreseen these reactions so he could have handled them proactively.

As it was, John realised that unless the users understood the logic of the model they would not only be reluctant to accept the new product costs, but also be unable to see how their behaviour affected the product costs. He and the sub-project manager then tried to handle the criticism by explaining the logic of the model to those who complained, and tried to
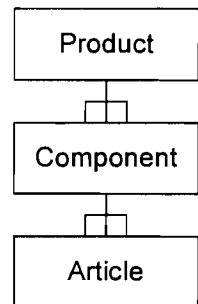
Figure 5.2
Conceptual model
of the relationship
between products
and articles

show that it provided a good description of the cost relationships in the operations. For the most part they succeeded in getting the users to accept the new costing principles, but on some points the criticism did not subside, and forced a change in the costing principles.

5.1.1.4 Results of the project

John had started out focusing on the production units. John remarked: "At the outset we believed that the quality of the costing scheme was the important aspect; our product costing was a blunt instrument. ABC would help identify relationships between production and resource utilisation more accurately. In hindsight, structuring and scaling the operations was the useful part. Now they talk activities, not accounts, when they make the budget." His ambition was to make people in production realise the costs attached to their operations; to help start a structured and pedagogical dialogue between production and management accounting. The basis for this dialogue would be a description of the operations in numbers that, unlike the traditional accounts, had a common sense meaning to the people in production. He sees it as a good mark for ABC when a production engineer looks at the computed costs and says "This is what I always believed".

John feels that the dialogue has been established. The project has led him to learn much more about the realities of production; this new knowledge helps him appear as a sensible speaking partner to the people in production. He has also managed to spread some of this knowledge to his colleagues by means of courses. The change is not entirely unidirectional; he perceives that people in production have become more inclined to reason in economic terms as a result of the project. But the dialogue has not only been furthered by an increased mutual understanding between accountants and production managers and personnel. The project has also helped John establish personal contact with a number of people throughout the production units.

The dialogue is one important result recognised by John, but he also noted more concrete results. He noticed that decisions relating to the use of resources started being taken at the presentations closing the production unit projects. At the final presentation meeting one production manager was surprised at the high cost of an activity. A noticeable cost component was shop floor space. When production personnel could tell him that the area was far greater than needed, he decided (at the meeting) that the shop

floor space allotted to that activity should be reduced and the freed space put to different use. Prior to the Activity-Based Costing, there had been no incentive to pose that kind of question.

John is pleased with the results of the project. The local involvement he set out to achieve seems to have come about. ABC is now an actively used tool in the decentralised organisation of production in the company. It is, however, just one tool among many, and John believes that it is important that he never tried to sell the approach as a panacea, but tried to give actors in production realistic expectations of the tool.

To a large extent, the sub-project manager shares John's positive view of the project. He too perceives that the change in management principles has come to stay, and that it is an improvement on the old ones. He is also very enthusiastic about the extent to which the project quickly and efficiently provided him with an opportunity to learn about his unit and to get to know the people in it. However, he sees signs that the show of interest and acceptance they met during the project was greater than the actual acceptance and adoption of the new principles.

When budgeting according to the new principles started in the production unit, the local accounting department sent out budgeting instructions. The sub-project manager noted that several foremen found it difficult to apply (and accept) the new principles. (The sub-project manager saw the principles as being of similar complexity and equal quality across the production sections.) These foremen, he noted, were responsible for sections of the production that had been addressed late in the project and where he had had a strict input-oriented communication with those described. He then started explaining the principles to them, and managed to get most of them to understand and accept the principles, so they could prepare their budgets. Some people, however, still maintained that they did not understand. He then stepped in and prepared the budgets for them. With regard to these people, he did not recognise any additional features of the project process that could explain this failure. He saw it as a result of the individuals' attitudes to change; some individuals were not willing or mentally able to change the way they viewed the operations to the way prescribed by the new principles of management accounting and control.

The costing principles are now in use, and budgeting is also done according to the activity-based principles. The principles have successively been simplified, trading detailed accuracy for ease of handling and maintenance.

The product costing has most of its information users outside production. In production the focus of interest was on expensive activities, not on expensive components produced. The initial ABC analysis indicated interesting areas for improvement, and some changes were undertaken, as mentioned above. However, the accounting system that was in use at that stage did not support activity-based management, and the effort to promote and support activity-based management was beyond what the local accounting department felt they could handle in the short run. Designing and getting the new principles of management accounting understood by the managers in the organisation was one thing. Actually working on adjusting the use of resources based on the new way of viewing the organisation, was another. Thus, more active use of the new principles of management accounting and control as a means to transform the organisation remained a task to be addressed.

5.1.2 Concluding remarks

The sub-project example shows how the project manager's attempts to involve local system operators in the project were successful. The local sub-project manager came to actively take responsibility for the local project and developed a sense of ownership of the resulting system. On the other hand, the project manager's narrow mental organisational system delimitation, focusing on stakeholders in the unit described and on his own colleagues at headquarters, led to strong reactions from information users who were not included in the project, but who felt strongly affected by the results of the project.

This case also illustrates that the process of creating the principles can influence how the principles are evaluated. The project manager judged the descriptive accuracy of the principles to be equal across all foremen's areas of responsibility. Despite this, the reactions among foremen differed according to the way they had been involved in the development process. Those who had been interviewed in the early stages of the project, when the interviews had taken the form of explorative discussions, tended to accept the resulting principles more readily than those who had been subject to the later more structured fact-finding interviews.

5.2 Case G: ABC accounting in an entire company

This case involves a change of project manager. The first part of the project (referred to as G1 in the analysis) is conducted by a person I call 'John'. The second part of the project (referred to as G2 in the analysis) is conducted by a person I call 'Jane'.

In 1989 'John', the controller at company B, started to show some interest in the quality of the product costing in the company. He studied Activity-Based Costing literature and talked to controllers in other companies and to consultants who had started to apply this new costing concept. B, a company producing components, tools and systems for an industrial market, belonged to the industrial group A. John found a speaking partner at A's head office, and together they decided to try Activity-Based Costing in B. They decided that they did not need a consultant in such a project (although consultants were marketing themselves quite aggressively at the time), but believed that it could be useful to have a consultant present the ABC concept to the top managers of B (the managing director, the Management Accountant and the heads of production, personnel, and marketing). The managing director did not find the idea interesting, but the Management Accountant, the marketing manager and the production manager did. They were not convinced, however, that ABC was worth the additional effort it would require compared with the present costing.

John and the person at the head office decided to try to perform a pilot project at a production site in B. As a step in promoting the interest[184] in Activity-Based Costing in the organisation, John, together with the three managers who had shown some interest at the initial presentation, visited a company that had chosen to develop a costing scheme that allowed them to measure customer profitability.

The next step was to start the pilot project. John and the person from the head office went to the production site and interviewed during the day and analysed the interviews in the evening. After a week of interviewing the plant manager, the unit managers, the foremen and the manager of production technique, they had tentative conclusions indicating that some

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[184] John had been a salesman earlier in his career, and talks in terms of *selling* ideas and concepts to people.

products required an inordinate amount of time and effort. The interviewees confirmed these conclusions.

The next step was to calculate costs for the products according to the newly developed scheme. John discussed this with the EDP manager who told him that the input needed was available in the MRP[185] system but that it would be quite costly to build and run a costing program on the mainframe computer. On the other hand, the data volume was far too large to allow the use of a PC. John then decided to perform some sample calculations, choosing products that he expected would show costs that differed significantly between the old and the new costing method. He found some differences that were noticeable, although not radical. When he confronted the interviewees in the plant with the results, the reaction was "we already knew that" – a reaction which he felt validated his new costing scheme.

John presented the results to the top management group at B, and was also allowed to give a presentation to the controller department at A's head office. John had thus marketed himself and educated some people a little, but there was no immediate continuation of the project.[186] The managing director of B was still not interested, and in addition a restructuring of the company, which took a lot of attention, started. Two years later the company was reorganised, production facilities and warehousing had been moved and a new managing director and a new Management Accountant entered the scene. The plant that had been in focus in the pilot project had been closed down and all production concentrated to another plant. John then spent almost a year introducing a new accounting and personnel information system in the company. Through informal contacts with the new managing director and the new Management Accountant, John learned that they were positive to the application of Activity-Based Costing in B.

John wanted to start with production and then go on, finally including the entire organisation in the activity-based costing scheme. To sell the idea thoroughly to the top management group John started to prepare material and brought in a consultant to help. A first meeting was held with the managing director of B, the functional managers, a number of people from the accounting department, and the management team of the produc-

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185 MRP – Materials requirement planning

186 The pilot project had taken about one calendar month, during which time John and the person at the head office had spent roughly half of their working hours on the project.

tion plant. John and the consultant were to lead the discussion. The consultant promised that the project would be highly profitable by helping to cut costs.

John intended to procure a go ahead for Activity-Based Costing for the production facility, and support for the idea from the plant management group. The managing director as well as the plant management group were positive to the idea, but in the ensuing discussions with the managing director the consultant introduced a provocative idea: "Why do you want Activity-Based Costing in the production plant?" John explained that it would be interesting to see where and why costs arose in the organisation, and that Activity-Based Costing could provide the production managers with better information on their actual costs. "Why?" asked the consultant. When neither John nor the managing director could provide a quick answer, the consultant asked if the ultimate goal was not to increase the profits in the business. The managing director jumped up and said "Of course I want to make more money!" Answering further questions, the managing director gradually realised that a role costing could play in reaching the goal of increasing profits was to help identify which products to focus on and which to phase out.

The effect was that the managing director became totally convinced that Activity-Based Costing should be applied in B, that it should encompass the entire company and not just production, and that it should be available soon. John had calculated on spending three months establishing Activity-Based Costing in the production plant, but now much more should be accomplished within that time frame; in addition to production all support functions at the head office of B plus one of three product divisions were to be included.

John would be project manager and was authorised by the managing director to enlist the people he needed to accomplish the task on time. John chose to include the EDP manager in the project. He had worked in the company for many years, knew the business, the present information systems and had knowledge of information systems development. The experience from the pilot project indicated that a costing system should run on the mainframe. These factors, along with the interest in the project the EDP manager showed, made him a key person in John's eyes.

Over the next few days, John had a number of meetings with the consultant, the Management Accountant, and the managing director, one or two at a time. They discussed how, in practice, costing would serve as

an aid in making the company more profitable. These discussions had several outcomes. John, the Management Accountant and the managing director all developed a more deliberated view of the strategical aspect of the project. The discussions also served to convince the managing director even more of the importance of the project and that it should receive priority. Yet another outcome was that his expectations of the project grew.

Regarding the realisation of the project, they agreed that establishing an acceptable Activity-Based Costing scheme quickly was preferable to aiming at top quality at the expense of time.

John decided to start with the production part, although that was likely to contain few surprises and only accounted for a small part of the total costs. Arguments for this decision were twofold: he had a clear idea of how to perform that part, and starting with production (instead of leaving it until later) would send a clear signal that the costing project would actually address the entire organisation. That signal was intended to help get managers in support and product departments to accept the performance of ABC analyses in their parts of the organisation.

The decision to start with the production part was not uncontested. The chief accountant at the factory thought that it would be better to start somewhere else in the organisation. He believed that the present costing model gave a fair description of how costs in production were related to the products, even though there was definitely room for improvement. In the rest of the organisation, accounting for the majority of the total costs, the present costing model gave a description of the relationships between the use of resources and the output of the activities that he believed mirrored the actual relationships rather poorly. He and the production manager advocated that the costing project should start at headquarters or in the product divisions, but they did not manage to sway the project manager's decision.

5.2.1 The production plant project

John talks a lot about selling ideas and getting those who are affected by the costing to like, accept and take responsibility for it. He knew to a large extent how the factory costing would be designed, but saw it as important that the chief accountant at the factory should help to design it so that he could feel an ownership. John also foresaw that the new costing could lead to heated argument once it started to be used. At that point, having a chief

accountant who 'owned' the costing scheme would be very different to having one who has been handed the costing structure and who can say "No, I do not believe in this either, but the head office requires that we use it". John enlisted the co-operation of the chief accountant, and the Production Manager also gave the project his active support. Together they, and a controller from corporate headquarters, who had experience from a similar project, discussed and agreed on how the project would be performed.

They agreed that as a rule, the costing scheme arrived at and the resulting calculated costs, should be applied without change. The production manager decided, however, that it should be possible to adjust the calculated cost, should a specific result be very controversial.

John had a strong focus on quickly creating a new costing model, while the chief accountant was more interested in the costing model being designed to allow continued application of it, and that the costs derived from it should be possible to compare with the management accounting.

To signal the start of the production plant project, John and the consultant held a new meeting with the managing director and the functional managers of B, and the management team of the plant. John and the consultant tried to raise the enthusiasm of those present, and the managing director and the financial director expressed their support.

Production personnel are used to measuring and being measured. Therefore, gathering data on production proceeded quickly and smoothly. John and the chief accountant at the factory interviewed the plant manager, managers of administrative units, production section managers, some foremen, production technique specialists and purchasing managers. The interviews were documented and the documentation returned to the interviewees for approval. The purpose of the interviews was to collect material on use of resources in the organisation (which activities are performed and what drives costs). The interview results were thus not controversial and the documentation was typically approved with few comments. The section managers were asked to point out what they considered to be the cost drivers for their respective departments. To some, this was a rather alien way of thinking about their activities, and they needed some help to be able to give an answer. In general, the terms John used appeared as foreign jargon to the factory employees.

John and the chief accountant analysed the information they had gathered, and designed a costing model (largely according to John's views)

which they discussed with the production manager, who judged it as reasonable. They then presented it to the factory management team. The discussions on which cost relationships could actually be said to exist in production led to some changes in the model. When they finally had a model that the factory management team accepted, John and the chief accountant presented it to the managing director, the financial director, a staff manager, and a product division manager. They received many questions regarding the business activities and the relationships in the model, but the managers did not know the production sufficiently to question the accuracy of the model.

John and the chief accountant at the factory made requirements specifications for a costing information system and the EDP manager led the design and construction of the system. When the information system seemed to be correct, the chief accountant produced a full set of product costs per product according to both the old and the new costing scheme. The production management team thought that the new costing principles provided a better description of the actual cost relationships than the old ones. Next, John and the chief accountant presented the new model to the three product division managers. None of them reacted much. The next step was to supply the product managers with the new product costs. The chief accountant received some questions on costs of particular products, and explained how these had been computed. Apart from this, little was heard from them, which John and the chief accountant interpreted as a sign of acceptance.

5.2.2 The head office project

The next step was to study the head office of B and functional departments around it. John interviewed the managing director and the managers of the support functions (marketing, logistics, personnel, EDP, and accounting). These people were not used to being measured and to keeping track of how they used their time. As a result, these interviews were far less straightforward and more complicated than the interviews in production. In addition, they constituted John's first attempt to create an Activity-Based Costing scheme for these types of functions, and consequently he had no prior personal experience of what results he could expect from the interviews.

For the product organisation, John agreed with the product department manager to start with one section as a pilot. That section only consisted of seven people, but he wanted to achieve local ownership of the costing. He asked the section manager to select a person who would help design the costing description of the section. The person chosen had a dual degree: M Sc. and MBA. He and John interviewed each member of the section. John documented the interviews and his co-interviewer and the interviewee both checked the documentation. John discussed his analyses of the material with his local partner as the work progressed. When they were finished they presented the result to the section manager. He then turned to his subordinate and asked "Is this a faithful description of our activities?" When he received "Yes" as an answer, he accepted the results without further discussion. (John believes that the insider participation substantially simplified his job of getting the new costing scheme accepted. Now a member of the section vouched for the correctness of the costing scheme and could explain the details to anyone who wondered about it or wanted to challenge it.) The pilot study and the preliminary interviews at the head office and support units were completed in two months.

5.2.3 Presentation of the product group Activity-Based Costing results to top management

On the last day of June 1993, at the end of the three months John had been allotted, John and four representatives from the pilot product section presented the new product costs and the Activity-Based Costing scheme to the managing director, the Management Accountant and the consultant. John had prepared S-curves (showing products sorted on profitability) for each family of products. The managing director studied the unprofitable products with great interest and found a product that he immediately demanded should be dropped from the product range.

The next step was to build a new strategy for the products. The managing director demanded that price and volume be raised by a certain percentage and that the number of products should be reduced by the same percentage. To respond to this challenge, the product section manager took his section and John on a one day workshop. They realised that they

would have to define the exceptions to the strict application of product cost based profitability as a basis for product decisions. After defining what was to be considered a new product, a strategical product, and so on, they could proceed to turn the policy statement of the managing director into an applicable strategy. In addition to finding a strategy for choosing which products to prioritise and how, they realised that product elimination was a complicated, cross-functional task and that they would need a new functional role: the product elimination co-ordinator.

5.2.4 A change of project manager

B was the first company in the A group to work with ABC and Activity-Based Management. John had developed knowledge that was in demand at the group A controller department, and moved there at the beginning of October 1993. For the ABC project to continue, a new project manager was needed. 'Jane', a young MBA who was working on product costing in John's controller department and had shown an interest in the ABC project, was appointed project manager; it was intended that she would spend 70% of her time on the project, starting in January 1994.

5.2.5 The budget process

In October 1993 the budgeting process in the production unit began according to the new costing scheme. (The rest of the organisation did not use the ABC scheme for budgeting that year.) The chief accountant went to the different department managers with the ABC description derived from the analysis done that spring, and asked if there were any changes. By mid-December the production budget was compiled and the chief accountant informed the product managers of standard production costs for 1994.

The standard production costs according to the new principles were computed based on the entire cost of production. Previously some costs had not (for historical reasons) been allocated to products. The chief accountant of production thought that it would be unwise to let the two changes coincide. He would have preferred to allocate all costs according to the old costing scheme that year and then apply the new costing scheme the following year, when the entire organisation was due to start budgeting according to the new activity-based principles. John was not in favour of

postponing the application of the new costing scheme, and his opinion won. After all, the new costing scheme had been circulated to the product managers, and had seemingly been accepted... Along with the budgeting instructions, John informed the rest of the organisation that the full costs of production would be allocated, but neither he, the production chief accountant, nor anyone else made any specific effort to ensure that people in the organisation understood that on the average this would result in higher computed production costs.

5.2.6 Reactions to the new principles

There were strong reactions against the new costing model from people who felt adversely affected by the new production costs. Product managers whose products had experienced a cost increase called the production chief accountant to tell him that his product costs were clearly unrealistic, and so did the person pricing spare parts. (Jane says that she heard no reactions from those whose products had become less expensive.) The chief accountant also received complaints from many people who claimed that activity-based costing made production more expensive. He tried to explain that there were two changes, one in costing model and one in amount of costs allocated, and that different costing models are just different ways of allocating a specified amount of costs. Some listened and understood, but it was not until that autumn, when he showed the calculations of the product costs that he had made according to both the old and the new costing model and demonstrated that the total costs according to the two models were the same, that everyone finally understood.

The chief accountant explained the logic of the new costing principles to those complaining and assured them that the new principles provided a better description of the cost relationships than the old principles had. Some understood, but for others it was difficult. The new principles involved new ways of thinking. Some people found it very difficult to accept that administrative costs are costs too, and that a part that contains material costing a few pence can incur costs of several pounds if it has to be handled separately and in small numbers.

The chief accountant also noticed that resistance and complaints correlated to some extent with how the application of the new costing principles affected the financial result. Those whose products appeared as relatively less expensive according to the new principles in general found

them more easy to 'understand' than those who were responsible for small series products that experienced increases in computed costs. The chief accountant felt that many product managers perceived the new costing principles as stemming from a factory initiative. Outward in the organisation the managing director had not played a prominent part, and the rest of the company top management had followed the development rather than taken an active part in it. To handle this, the product managers were invited to discuss the new principles with Jane and the production chief accountant, and to bring anyone they wanted with them. These meetings were introduced by the managing director in a manner that clearly demonstrated that he stood behind the project. Jane was surprised to find that there was no heated debate at the meeting. The accountants explained the new principles. There were few questions and yet much of the voiced discontent disappeared as of that meeting (reviving to some extent at budgeting time the following year).

John claims he did not fail in enlisting the co-operation of anyone he thought was important to include in the project. Neither does he, in retrospect, recognise that there were individuals whom he should have tried to involve. Jane, among others, is of a slightly different opinion. According to her, some people felt strongly affected by the new product costs although they had not been identified as important during the project. In the project, the focus was on those whose work would be described in the activity-based costing, and would thus be interviewed (or have someone close to them being interviewed). There were also those who were seen as users of the new product costs and who would base decisions on them. They were informed of the new costing results and asked for reactions, but did not volunteer many. When the new product costs were announced in December, information users started reacting. Some quite strong reactions came from people the project manager had viewed as little affected by the change of costing principles. For example, a purchaser who viewed the calculated costs as input in his negotiations voiced discontent, and a person responsible for price lists for spare parts identified what he saw as unacceptable results for some products.

Jane had separate meetings with these individuals to discuss the matter. Some minor details in the product costs were adjusted, but largely the discussion in itself seemed to solve the problem of discontent.[187]

At the time, however, Jane was concerned, and the discontented people spoke widely about the folly of ABC and the new product costs. One of the discontented individuals had a very wide personal network, and in retrospect Jane wished that at least this person had been identified and included early on in the project.

5.2.7 Completing the head office part of the project

Jane was to continue the work started by John. He handed over his documentation and they spent two or three days together when she tried to understand how to interpret the material. Very little time was spent on discussing the process of interviewing.

Jane started interviewing on a small scale in December 1993 according to the ideas drawn up by John, but she was not very pleased with the approach. During the first three months of 1994, most of her time was spent working on the budget. The managing director asked her from time to time[188] how the project was progressing, and clearly showed that he thought it was proceeding too slowly. During the second quarter of 1994, she managed to spend half her time on the project. She adopted a new approach towards analysis, putting greater emphasis on the maintenance aspects of the costing scheme. She interviewed and analysed, but was still not pleased with the rate of progress. By June she had managed to produce a costing scheme for the head office functions, but had not yet handled the product sections. Lack of focus on the project was one problem, the time it took her to compile and analyse data was another, and computing inefficiency in calculations and creating graphs on the PC a third.

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[187] John's view is that the acceptance of the new product costs to a large extent was a consequence of the clear commitment to the new costing scheme expressed by the factory manager and the managing director.

[188] Roughly once a month

5.2.7.1 Project progress and reorientation

The managing director continued to ask about how the project was progressing during the second quarter of 1994. Jane was not pleased with the progress herself, and she felt that the managing director certainly was not either. As the summer drew close, Jane discussed the matter with the pro tempore Management Accountant (a substitute for the regular one, who was on maternity leave). She estimated not being able to complete the project until 1996 or 1997 given the present rate of progress. They agreed that with an extra person from company B and with the aid of a consultant, the project could be finished by the end of 1994. The managing director agreed to this budget increase after some consideration.

During the summer, Jane requested price quotations from consultants and evaluated their approaches to Activity-Based Costing, finally choosing one who stressed the importance of maintainability of the resulting costing system. This led to a change in focus. Instead of basing the costing mainly on interviews, a greater emphasis was placed on identifying data that already existed in the company's information systems and that could be utilised as input in the costing computations. The consultant could contribute with his knowledge of how to use data base tools in the analyses; an area Jane felt she needed support in.

The other person from B was now working in the accounting department, but had previously been group manager in logistics. She had been with the company for more than ten years. Jane found her to be a valuable addition to the team, not only because of her knowledge of the company, but also because her perspective differed from Jane's. In those instances when the two of them discovered that they had formed different opinions, they took it as a signal for reflection or further inquiry. In this way they felt they managed to capture the actual cost relationships in the organisation more accurately, and it made both of them more aware that their own view was not necessarily 'the truth'.
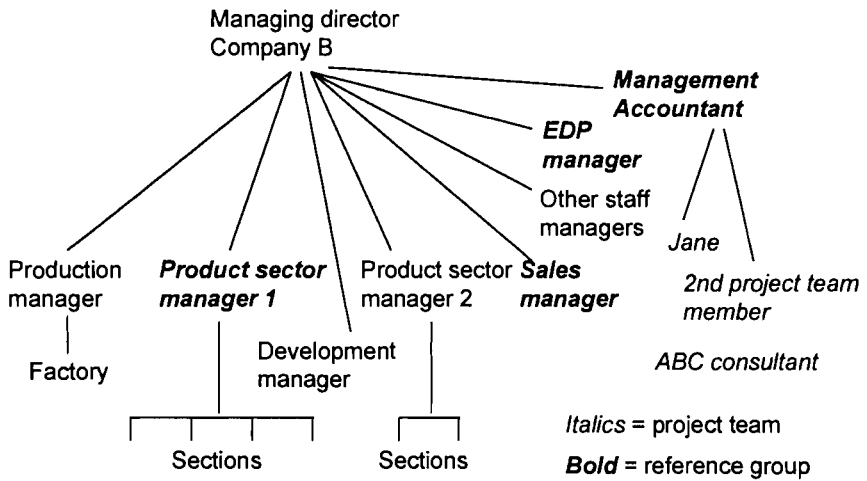
Figure 5.3 Organisation of B and project members

In addition to the enlarged project team, a reference group representing different user groups was formed. It consisted of the sales manager, the EDP manager, the Management Accountant, and the manager of the dominant product division. (See Figure 5.3.) The sales companies were evaluated on consolidated profitability, and the application of ABC would influence which products would appear as profitable and thereby direct the sales effort. The product division manager had direct responsibility for the products. The EDP manager assessed if the costing system would become a well-functioning part of the company's information systems portfolio and if the interaction between it and other information systems was sensible. In addition, he was held in high regard in the company. The Management Accountant wanted to make sure that the Activity-Based Costing would support a sensible profitability analysis. The task of the reference group was to review the project at major milestones.
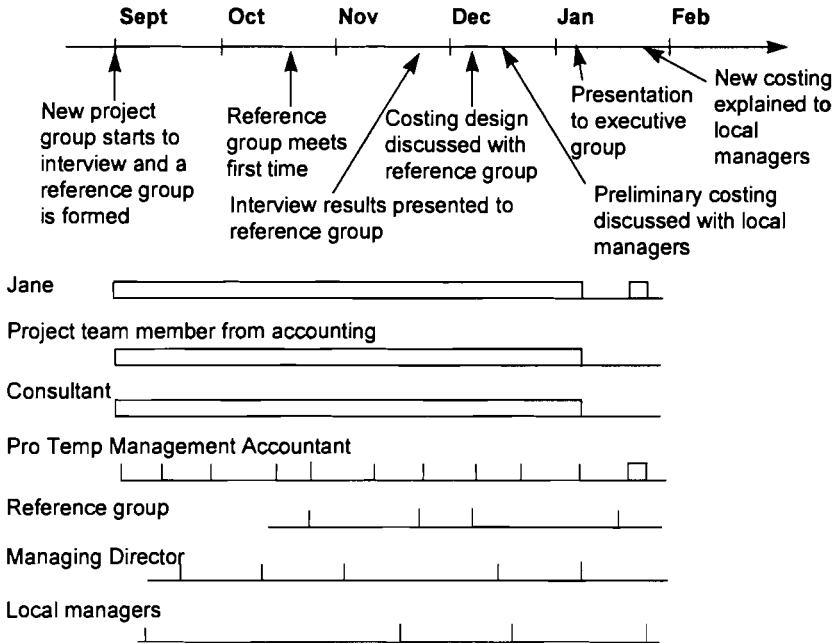
Figure 5.4 Important actors

The pro tempore Management Accountant discussed the project with Jane from time to time, but viewed the project as Jane's responsibility. Interviewing started in September and continued until the middle of November. The interviews were divided between the three members of the project team. In most units the manager was interviewed. If the unit was very small (e.g. logistics: two people) or already produced data on its operations in a form that could be used for the ABC analysis, no further interviews were performed. In accounting, the project team prepared a form that described a typical employee's work, and all members of the department filled in the form, indicating agreement or deviations from the 'standard'. In the product divisions, each section manager plus a large share of the members of the different sections were interviewed.

The project team started to analyse the material in November, in parallel with the last interviews. The picture that the project team formed of the business operations on the basis of the interviews was discussed with the reference group at the end of November. The reference group members

acknowledged the description as accurate. The project team continued the analysis, and in early December discussed the design of the costing scheme with the reference group. They then raised the question of who would use the costing and for what. They discussed the topic and agreed on a list of potential information users and situations in which these people would be users. Both Jane and the reference group then considered that they had explored that topic sufficiently.

In the middle of December, the project team had produced preliminary costing calculations which Jane sent to all cost centre managers and then talked with them to hear if they found anything surprising in the material. On the last of December, the project team produced complete lists of costs according to the newly designed principles. The ABC scheme and the final results were presented to the executive group of B at the beginning of January, and at the end of January Jane and the Management Accountant met each of the five product section managers for a day and explained and discussed the results that pertained to that section. The Management Accountant participated in these meetings to signal management support for the new costing scheme.

5.2.7.2 Interviews

Jane noticed a steep learning curve during the early interviews. After a number of interviews she had developed a feel for what to ask and how to ask it in order to obtain answers that would be easy to turn into activity-based costs. It took longer to learn which statistics she could find in the company's information systems that could serve to validate the findings of the interviews. Jane presented the ABC concept to each working group before starting the interviews, and then returned to present her results afterwards. The white collar workers she interviewed were not at all used to thinking in terms of how they spent their working hours and how their work related to specific products or product groups. On the other hand, they all showed an interest in the S-curves she produced based on the interviews.[189]

Like John, Jane interviewed and then produced documentation which she returned to the interviewee for approval. She noticed, however, that there was often a problem concerning semantics. The fact that she and the interviewee interpreted a term differently often went undetected by the

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[189] For example, she received the comment: "That's bloody interesting!"

process of signed interview documentation. Discussing and explaining in principle was also of little help. She found that few people spent the effort needed to detect errors. Only when she produced actual computed product costs, and the product manager did not react on the basis of the figures, did she feel reasonably certain that there were no misunderstandings. In the beginning, Jane required the manager of the interviewee to be present at the interviews. After a while, she felt it was no longer necessary, but in retrospect she has noticed that it helped eliminate many misunder-standings. In her view, it would have been useful to continue the practice.

5.2.7.3 Using the production costing

In October 1994, Jane sent out instructions to the product managers concerning how to enter volumes for their products for 1995 in the costing system. Not all of them did. When the new year started and new product costs had been calculated, rumour had it that the calculated costs were incorrect, or at least poor descriptions of true cost relationships. Jane had thought that she had solved the problem of discontent the year before, but this seemed not to be the case. In April she met with a number of cost centre managers to pin down the details of the discontent: which products? which cost items? The concrete examples were not very numerous. Jane explained some and referred some points to the chief accountant of the production unit for further explanation. (He received few concrete calls.) After this exercise the grumble that reached her subsided again. Jane's interpretation was that the voiced discontent, which the year before could in part be explained by a poor understanding of the new costing scheme, was now part of a political game in which product managers and other stakeholders with an interest in product costs tried to lower the costs attributed to 'their' products. The chief accountant in production noticed that some people who used (or could be expected to use) the costing information, still had not mentally accepted it, and seemed not to under-stand. There were also others who seemed to choose when to understand and when to display ignorance.

5.2.8 Results achieved

The projects thus resulted in the design of principles of management accounting that were implemented, but the concrete effects of the use of the new principles were coming along at a pace that the accountants in the

projects experienced as low. Higher managers who appreciated the new principles of management accounting and control looked at the positive instances of use and viewed the adoption of the new principles in the mental models of the people in the organisation as a process that would take time, but that was moving in the right direction. They felt that the pace was sufficient for internal use, and also sufficient to keep them in the number one position in their industrial group concerning the application of the activity-based approach to management accounting and control. Under these circumstances, they felt that the value of giving further emphasis to this process was insufficient to warrant switching resources from other uses to the process of applying the new management accounting and control principles in action.

5.2.9 Reflections

There was a distinctive change in approach when Jane took over from John. John managed to sell his idea to the managing director, and worked hard on meeting the expectations he helped create. He saw ABC as a tool, and this tool was to be used. This involved getting people to accept it. Thus, anchoring and local ownership were important. It also meant taking the step from Activity-Based Costing to Activity-Based Management, a step that attracted John's attention. His idea was to deliver results quickly, and in order to do so he crafted the definition of his job. (His style was not appreciated by everyone. Some saw him as pushy, overselling, and to intent on creating quick results, to the detriment of long-term results.)

Jane, on the other hand, appeared to be more of a person who performed tasks she was given. Creating results in the organisation and becoming involved in the strategic use of the product costs did not appear to be part of the job she perceived she was set to perform. Analytical stringency seemed to appeal to her, and under her direction the project moved from a 'time before quality' orientation to the opposite. This reorientation was, however, not continuous, but rather taken in distinct steps between which she kept on working in a set manner even if it did not appear to her to be productive. (Jane's approach was experienced by some as too slow and too preoccupied with details.)

John's interest in the project, however, was not sufficiently strong to make him attend to the hand-over in such a way that the project did not lose momentum. When he left B the project was no longer his responsi-

bility: in his mind it became 'their' responsibility. "I never understood why *they* did not complete the project in 1993. It was just a matter of collecting data; the structure was already in place."

John's approach of having local representatives as active partners in designing the costing scheme probably helped him avoid mistakes and misinterpretations of the kind that Jane had problems with. However, there also seemed to be a difference in willingness to identify and admit such mistakes.

John's way of describing the project was one of rational planning. He had a vision and made it happen. According to Jane, opposition to the ABC product costs appeared from unexpected directions, and died out unexpectedly while she tried to handle it. The project was delayed because each task took such a long time to complete. The interviewees did not take quality control seriously, but that was solved in the end when the product managers received the new cost calculations... In other words, in contrast to John, Jane's way of describing the process was much more one of emergence.

John invested substantial effort in selling and anchoring the costing concept and the costing scheme to and with managers and local representatives. Jane noted that the managing director of B was in favour of the project, and did not view the selling side as her task. She was primarily concerned with designing a logically sound costing scheme, seeking mostly factual input, and debating with opponents strictly based on the logical validity of the costing model as a good description of the activities in the company.

Jane noted that the project was still not progressing very rapidly and that her multiple responsibilities constituted an obstacle. She did not, however, push the issue of insufficient project focus, claiming that it was the managers' (the Management Accountant's and the managing director's) responsibility to allocate resources between tasks.

5.2.10 The roles of individuals

John, the project manager. The project was John's baby right from the start, and in due time it led to John's promotion in the group. John was the driving force behind the project and handled the sale and anchoring of it to and with those people he deemed as important for its development. From the middle of March 1993 until the end of June 1994 he worked practi-

cally full-time on the project and has participated a few times since on request.[190]

The managing director of B was the principal for the project. John's ambition was to involve the managing director, and he succeeded. It was when the project turned into a strategic one that the managing director really became involved, and he has kept in contact with the project and monitored it on his own initiative. With the managing director behind the project, it was possible to get the attention and time from other influential actors and stakeholders.

The consultant hired by John. His function was to legitimise John's ABC aspirations, and to contribute an external view that would raise the project from an accounting project to a strategical endeavour. He also helped with the definition of delimitation, choice of level of ambition, time plan and milestones. He did not participate in the operative parts of the project.

The chief accountant at the factory. He performed a good deal of work, but primarily served to legitimise the project toward his portion of the organisation (the factory). He became the owner of the production portion of the costing scheme and defended it against opposition. During the month of interviews and design, he spent about half of his time on the project and has since had some level of engagement, increasing when others have questioned the product costs (primarily during budgeting).

The production manager (head of the factory) was to some extent part owner of the factory part of the project, although John never formally worked for him. To get the new costing scheme for production accepted, John believed that local acceptance was important. A factory manager who was not involved in the process in any way would have been a major obstacle, according to John. The factory manager's engagement has been in the role of figurehead. He sees the production costing scheme as belonging to the chief accountant, not to himself. He has not spent much time on the project and has not taken any initiatives or been a driving force in the project.

The product manager who worked with John in the project group for part of the project was a representative of those described and also an

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[190] This case has been prepared on the basis of interviews with John, Jane and the pro tempore Management Accountant, the managing director, the production chief accountant, the manager of a product division, and the product manager who participated with John in the product division pilot project.

information user. John used him to verify descriptions of the business operations, and saw his participation in the project as part of the anchoring process.

The section manager in the product division was to some extent part owner of the pilot project in his department, although John never formally worked for him. He played a subordinate role in the development of the costing scheme, but in using the results – designing a product strategy on the basis of the product costs – he took the role of project leader and employed John as an internal consultant. The section manager is one of the people who are to use the project results and thus one who can benefit from the increased quality of information that the new product costing scheme is intended to produce. His behaviour towards the new principles appears to onlookers as heavily influenced by the utility he can see for his own department in applying them.

The Management Accountant. She was John's formal manager, and as such an obvious person to anchor the project with, but she never participated directly in the project.

Jane, the second project manager. Jane saw the project as an interesting opportunity to develop her competence and as a welcome change to the yearly cycle of routine tasks, although she was not able to lay all of them aside to concentrate exclusively on the project. She led the project, but left much of the sale and anchoring of it to others.

The pro tempore Management Accountant. He was Jane's formal manager, and as such an obvious person to anchor the project with. He repeatedly served as Jane's speaking partner when she wanted to test or evaluate ideas. He also took an active part in the steering committee, and on occasions accompanied Jane in discussions with managers to lend weight to the issue.

The product division manager who was one of the managers targeted by John in his attempts to keep the project on the top managers' agendas. First taking a passive role, he eventually became more active as a member of the steering committee of Jane's project, where he tried to direct attention toward the interests of the information users.

The importance of inclusion and exclusion manifested itself in several ways.

- The chief accountant, who was made a key figure by John in the production costing project, became a strong defender of the ABC concept and of the production costing scheme, even though he believed

the project could have been performed differently and the resulting principles and the management accounting and control system could have been different.

- The product division manager who was included in the reference group did not appear to think at the outset that ABC was an idea worth prioritising,[191] but later became a strong supporter. His subordinates were also rather positive to the new principles. The product division manager who was not included in the reference group (partly because Jane and her advisors wanted to keep the group small) was not, and did not become, a supporter of the idea during the period studied. His subordinates viewed the project as an unnecessary burden and were not in favour of the new costing scheme.
- The most vocal opponents of the new costing scheme were people who were not consulted when it was constructed. They stopped complaining when Jane took time to discuss it with them.

5.2.11 Concluding remarks

This case provides an example of the importance of the project manager for the way a project is performed. The two project managers were functional colleagues, performed their projects in the same organisation, and were attempting to develop the same type of management accounting. Yet they had two distinct approaches to communication in the projects.

John paid considerable attention to making the project visible to higher management. This was successful in that he managed to gain and keep the support of the managing director. Jane, on the other hand, was strictly focused on the internal tasks of the project and paid little attention to its visibility.

John placed pace before precision, while Jane valued precision, maintainability and internal logic above speed. This provided the project with a quick start, focusing on the easy construction parts, but the progress gradually slowed down. However, the project retained the support of top management, and the design and implementation continued steadily.

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[191] This is as perceived by John. His own view is that he wanted the project to start, but was astonished at how much work it required.

John focused on working with local participants. As he had intended, they also became supporters of the designs they had participated in creating. Jane did not follow John's example in this respect either.

On one point their patterns of communication was similar. They both placed great emphasis on obtaining descriptions of business activities from those whose work would be described by the ABC accounting, while placing little focus on discussing with information users outside the unit described to catch those persons' perspectives.

5.3 Case H: a group within a group

This case describes a project aimed at designing principles of management accounting which would allow an industrial group to be managed as a matrix organisation. The case description starts with the organisational setting and the background of the project. Then follows a chronological account of the project, which closes with a summary of the participation of the primary actors, an account of the results achieved in the project, and a presentation of views on the process which were expressed by different stakeholders.

5.3.1 Organisational setting and background

At the time of the project, the official business vision of the parent group (a conglomerate) was to concentrate on two lines of business, A and B. There was a change of management in the group. A new managing director, previously the head of A1 (one of the sub-groups within A) was appointed. Concentration meant that parts which did not fit with the new focus should be divested, and what was kept should be restructured and developed to achieve strong positions nationally and internationally, and a lasting high profit level. A and B, the two chosen lines of business, represented 80% of the turnover and 95% of the profits of the group. A and B consisted of a number of sub-groups, of which A1 and B1 were by far the most profitable, together generating over 80% of the group's total profit. The project described in this case was conducted in B1.

The core of B1 was a successful and profitable company with a strong hold of the Swedish market. In the mid 1980s, related companies in Europe and North America were acquired and formed a group under Swedish direction. Five years later, the company owning this group acquired another diversified group. As a consequence more companies, Swedish and continental, were added to B1. Some of these new companies were selling a product range that differed from that of B1, but that to some extent was sold to consumers via the same sales outlets. There was no substantial overlap between the products of any two companies within B1 and the idea was to exploit the expected synergies in marketing: a typical retailer sells different brands, not just one, and products from both of B1's

product groups. The new product group companies, which were unprofit-able, started to co-operate and by the end of 1992 there were visible effects such as joint sales forces on markets leading to a reduction in total sales personnel and cost, although the low level of profitability was still unacceptable. The companies producing the traditional B1 products, typi-cally operating on different markets, had not started co-operating to any great extent.

In 1992 the company owning B1 acquired yet another company. This new company ('Global' in Figure 5.5) had a leading position on the world market. With production facilities on three conti-nents and marketing and sales companies in 20 countries it was also quite inter-national. In terms of turnover, only the first B1 company (The Basis) was larger, as can be seen in the figure. Global's profits, however, were quite low and almost all the profit in B1 was generated by The Basis both before and after the

Figure 5.5 Relative size (turnover 1992) of the different parts of B1

purchase of Global. Studies had shown that the potential for synergies in marketing between the existing companies in B1 and Global was substan-tial. Global was made part of B1 which thus came to operate in three lines of business as shown in Figure 5.6.[192]
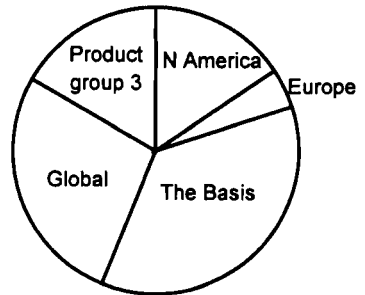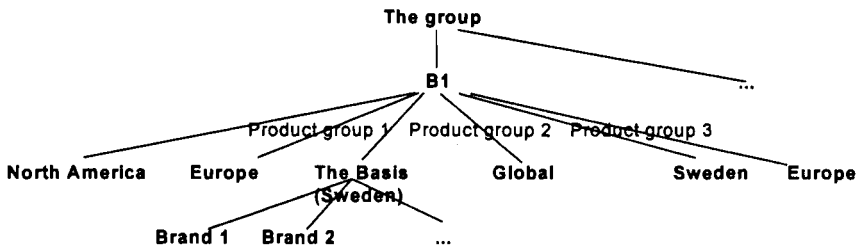
Figure 5.6 The structure of B1

The strongest expected synergies were those between product groups 1 and 2. There were several examples of markets where products from one

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[192] The Basis, the largest and most profitable part of B1, was in turn organised in five units: four brands and a research unit.

line of business could be expected to expand their market share if they could benefit from the strong market and sales organisation of the other line of business. There were also examples of expected cost savings to be achieved by eliminating duplicating sales organisations.

To quickly achieve the expected synergies, the board of directors of B1 felt a need to reorganise in order to turn a number of different companies into one co-ordinated group. Such a reorganisation would also require a change and co-ordination of principles of accounting and control, a type of co-ordination which had not previously been attempted. Each major company in B1 had previously been allowed to make its own decisions regarding what principles of accounting and control to use. The new principles of accounting and control should facilitate comparison between units as well as facilitate the intensified dialogue between units at the local level, while at the same time serving the information needs within the units.

5.3.2 The accounting and control project

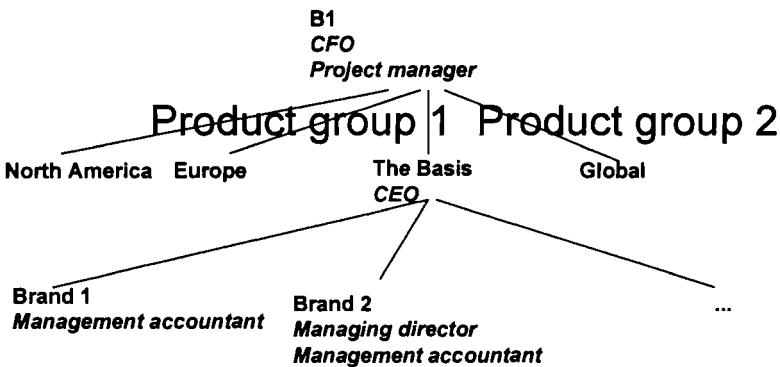(This account builds on interviews with the people shown in Figure 5.7.)

Figure 5.7 Persons interviewed (in italics)

The CFO of B1 became responsible for designing the new principles of accounting and control. In the rather informal organisational climate of the group, no formal project had been set up to investigate how to achieve co-ordination. The topic had, however, been the subject of discussions during the autumn. An 'inner circle' in these discussions had consisted of

the managing director of B1 (who was also deputy managing director of the entire group), the deputy managing director of B1 (who was responsible for product group 3), the CFO of B1, the person in B1 corporate staff who was later to become project manager, and two top managers of Product group 2, Global: the managing director and the CFO. The other top managers of B1 (the managing directors of Product group 1: North America, Europe and The Basis) also participated, but to a lesser extent.

After the purchase of Global, a top management group had been formed consisting of the four managing directors of product groups 1 and 2, and the managing director, the deputy managing director, and the CFO of B1 (see Figure 5.8). The managing directors of product group 1 had one idea
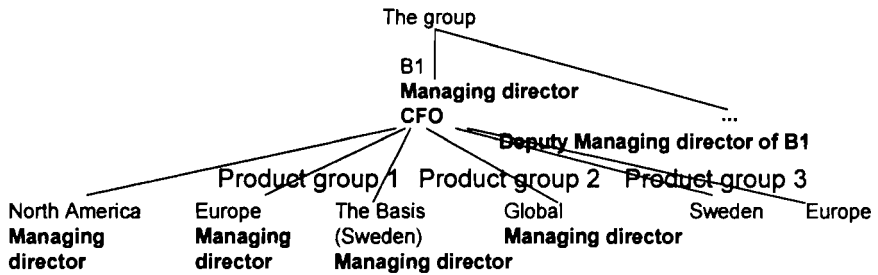

Figure 5.8 The top management group of B1

of how to organise B1, the managing director, the COO and the CFO of product group 2, Global, and the managing director of the group of which B1 formed a part, had another: a strict product/market matrix. It may be noted that the 'inner circle' in the preliminary discussions of management accounting and control principles did not include those who were in opposition to the product/market matrix idea.

'John', the person who was to become project manager, had moved to the group from another international, Swedish owned industrial group. After restructuring part of A2 (a sister to B1) he became involved in the acquisition of product group 2, Global, evaluating that group and studying some companies which it was considering acquiring. He had also had some contact with the unit 'Europe' in Product group 1. The CFO of B1 who was responsible for accounting and control in the group, asked John, who had engaged himself deeply in the discussions of management accounting and control principles for B1, to devote his time to that question. John drafted a proposal for a project with the aim of developing prin-

ciples of management accounting and control that would enable B1 to function as a matrix on a local level as well as when viewed from the top of the organisation. The proposal was discussed at the top management group meeting of B1 in December 1992; the top management group decided to accept the proposal.[193] The top management group came to function as the highest steering committee for the accounting and control project. The CFO had primary responsibility for the project within the top management group. John became project manager and had a group of B1 division CFOs as a reference group and steering committee, chaired by the CFO of B1.[194] No specific project group was appointed, but John and the CFO worked closely together and John also had extensive discussions from time to time with members of the CFO reference group and steering committee.

From the outset John had a clear view of the general outline of the project goal, although it was never explicitly formulated. The purposes of the project, according to both John and the CFO of B1 were: a) to design principles of management accounting and control that will allow the B1 group to function and be studied as a matrix of market units and business units; b) to implement accounting and budgeting that follows the principles: budgeting during the fall of 1993 and accounting no later than January 1, 1994. The resulting system should make it possible for B1 management, division management and company management to plan, conduct and evaluate the operations of the group in terms of the matrix structure, and thereby support the exploitation of marketing synergies within the group as well as facilitate comparison of units. John's view was also clear on the point that his mission was to supply the B1 top management with accounting principles that met their need for evaluating the group as a market/product matrix, and local managers with accounting principles that matched their operative accountability.

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[193] According to a managing director in the top management group there was no consensus in the forum on the matrix question at this point in time. The decision to introduce an operative matrix structure in B1 was taken by the managing director of the entire group (one level above B1) at a board meeting in B1 in March 1993.

[194] The CFO views this group as a reference group and the top management group as the only 'steering committee', while John presented the view stated in the main text. During the interviews, John in general stressed the formal aspects of the project more than the CFO, although they both talked of the importance of the informal contacts in the project.

The criteria which John claims he used when setting up the reference group were that the participants should represent the different business areas of the group as well as be capable of discussing accounting and control from a group perspective rather than from strict divisional perspectives. Since he felt that the CFOs of the divisions had these qualifications, the choice of group members appeared non-controversial to John. The CFO of B1 represented The Basis (where he had worked prior to becoming CFO of B1) as well as B1, and thus John felt no need to include the CFO of The Basis as a member of the reference group and steering committee. The CFO of North America did not wish to travel extensively to Europe and participated 'from a distance'. John visited him at an early stage and had telephone conversations with him during the project.

It seems clear to me that John selected people whom he respected for their knowledge of the company as well as for their functional and analytical competence. He used their competence for testing his ideas and for generating alternatives. He did not, however, try to get them to perform any work between meetings. As far as I can see he also deliberately chose the influential actors who would be moving up the organisational ladder. They were all CFOs, and it seems that he included them because they would have resented being excluded, rather than to give them a sense of participation and thereby direct their attention to his project.

5.3.2.1 Investigation

John spent the first two months of 1993 gathering information about the organisation. His ambition was to understand the operations of the different companies[195] and to identify the factors most critical to the profitable operation of the company (according to his judgement). These factors would need to be handled by the new accounting and budgeting system. John also wanted to study the practices of accounting and costing in use in the local companies to form his own picture of the starting point for the change and to identify good solutions which could be incorporated in the overall principles for the B1 group.

Although he wanted to study principles in all lines of business and acquire information on all functions in the organisation (though not necessarily in each division), he did not intend to visit all the companies. In-

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[195] "Company" here refers to sub-units on the brand level, such as Brand 1 in The Basis (see Figure 5.6, p. 182).

stead he wanted to sample companies and people so that he would see the diversity in the group. Additional parameters were that he wanted to visit units which were large in terms of turnover (judged by him as more important for the momentum in the change than the small units) and that he wanted to limit the amount of time spent travelling (leading to a preference for units in Europe rather than in the Orient or the Americas). He planned to spend two months on gathering information, and he asked the reference group to advice him on which companies to visit.

During an intensive period, John visited companies within B1, typically meeting with managing directors, marketing managers, and representatives of the accounting and control function such as managers of finance, accounting managers or people responsible for product costing. In a few instances, he also met production managers and visited factories. He assumed that these people together would represent a knowledge of the company that would be sufficient for his purposes. His wish to develop what he saw as an objective understanding of the organisation does not mean that he overlooked symbolic aspects of his visits. One reason for visiting all lines of business was to show attention and to signal impartiality in information gathering. His visits provided many people in the organisation with a chance to express their views within the project. In addition to the information gathering purpose, he also intended that the visits to the top management of the local companies should signal a change to tighter direction and control within the B1 group; B1 was to become a unified whole. Stating that the top management group showed involvement and took an active interest in the project was (in his view) an important part of this signal.

John estimated that in all, including his previous contacts within Global and Europe,[196] he visited 60% of the companies. He felt that he developed a good knowledge of the group as well as of the accounting practices used, and at the end of the two months he had allotted to information gathering he felt that he had nothing more of importance to learn about the present operations and systems. He was also of the opinion that the signals of top management determination were received and understood.

In addition to visiting companies, John discussed with the whole reference group on some occasions and with influential members of it (CFOs of Global, Europe, and B1) on more occasions.

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[196] John did not revisit those parts of the organisation that he felt he already had a sufficient knowledge of.

5.3.2.2 Design

The B1 top management intended to implement an operative matrix organisation (which would not necessarily be reflected in the legal company structure) with business units and market units. A business unit would be in charge of the production of a type of product (including a number of brands). A market unit would be responsible for sales and marketing of the B1 range of products in a specific geographic area. The only part of B1 that had some kind of matrix organisation was Product group 2, Global. When John and the CFO of B1 subsequently started to design the new principles of accounting and control, it was natural for them to take the existing system in Product group 2, Global, as a starting point. However, they tried to identify the best parts of each of the sets of principles used in the different parts of the group. They also made sure that some element of each set of principles was included in their final proposal, in order to give everyone the chance to recognise parts of their old principles in the new, and thereby lessen the risk that the proposal would be viewed as entirely foreign by someone.[197]

The project manager saw the top management group of B1, and especially the managing director of B1, as the people who needed to approve the principles. He believed that if they approved them, the principles would be implemented and used. To keep top management attention, and to be able to refer to top management decisions, he successively referred the principles to the top management group for approval as he developed them.

John seemed to realise that the new accounting principles could be controversial, but viewed potential opposition as petty and irrational. "There are no victims. In the long run, no one can lose from the application of accounting principles that are just." Trying to understand and handle the concerns and worries of the information users or other affected parties was not his task, according to his view. To secure co-operation and acceptance at lower levels, and to try to keep the project on a technical and non-subjective level, he kept on signalling, as he had done from the start in his dealings with company representatives and others below group top management level, that he and the project had full top management support.

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[197] This was pointed out by the CFO of B1

John designed the principles according to his own judgement, but used the division CFOs and the group CFO as discussion partners when he felt he needed input in the design process.[198] (The group CFO's view is that he and the project manager designed the principles together. They both agree that the other reference group members did not take any design decisions. However, the project manager stressed his discussions with the reference group as an important part of the process, while the CFO viewed the role of the reference group as marginal.) The project manager wanted the design to be, and appear as, an impartial venture and decisions to be based on what was best for the Group, rather than what would benefit a particular stakeholder. His view was that the CFOs in the reference group were capable of taking this detached perspective, and this was the reason for discussing design with these people and not with others. Impartiality was also a reason for keeping the communication to discussions, not turning the process into a co-operative design effort.

Regarding broader participation, there were also other considerations. Neither the CFO nor the project manager considered it reasonable to involve lower level managers of accounting and control in the design discussions since they believed it would have taken far more time without leading to a superior solution.

The project manager felt that he was objective and was developing 'just accounting principles'. Whether this was indeed the case is a matter of opinion. The criteria behind the design choices were subjective. [The choices were based on what the project manager and the CFO saw as clear and logical principles which would provide what they regarded as good information from a top management perspective as well as from a local perspective. (The project manager maintained that there is no conflict between the two perspectives.)] The project manager and the CFO also pointed out that they did not compromise between high quality accounting and choosing parts to represent each division or major stakeholder. Each one of the existing management accounting and control cultures had at least one high quality element that was worth keeping. They simply took care to identify and include such elements.

In parallel with the design of the principles, John participated in the implementation of accounting according to the new principles which was

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[198] The project manager felt he benefited from the deep knowledge of operations that the group CFO possessed, and he also relied on him for 'political' considerations concerning the design.

successively taking place in the units. Beginning in February, marketing was successively restructured into strategic market units, and strategic business units were formalised. John helped the local finance and accounting managers set up accounting for these new units, explaining the principles he was developing and how they would translate to the specific situation of the market unit or business unit. A business unit normally sold its products through several market units, and each market unit normally marketed products from more than one business unit.

Although the reason John worked with the local accountants was to assist them, the implementations also provided tests of the principles and helped surface problems. In connection with creating a working accounting capable of computing operating profits for the newly defined units, problems concerning division of responsibility and authority between business unit and market unit became apparent. Some could be solved on the local level, some were referred to the division level, and some became topics for top management group discussions. Both the CFO of B1 and John saw it as a great strength for the project that the top management group took a keen interest in the project throughout and always allowed time for discussions of important questions pertaining to the project at their regular, monthly meetings.[199] John made the top management group involvement visible to the local actors to signal that the CFO and John were truly acting on behalf of the B1 top management.

The early implementations of the accounting principles being developed, though useful for the project, were not scheduled by John, and he did not attempt to enlist broad participation of any kind from stakeholders at or below company level in those or other companies during the design phase.

The principles would be presented to the organisation at the meeting at the end of March where the matrix organisation would be described to managers in the B1 group. The March meeting started out as an idea of an activity that would be conducted at the end of the phase of general principles design, but once given an absolute date it came to act as a deadline, prompting the final decisions. On one point the project manager and the

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[199] This "keen interest" may have been in the eye of the beholder, or unevenly distributed in the top management group. A group member I interviewed stated that he viewed the management accounting and control project mainly as a matter of accounting, and thus under the realm of the CFO. As long as the CFO was happy with the project manager's performance, he saw no reason for the top management group to interfere.

CFO of B1 felt they had two alternatives of about equal merit, but with the March meeting approaching there came a point when deliberations had to come to an end and a decision had to be reached. They presented an almost final proposal (not final on this one point) at a top management group meeting in March where all divisions of B1 were represented. The proposal was discussed and accepted. After this meeting, John and the CFO of B1 felt they were slightly more in favour of one alternative, and the managing director of B1 followed their recommendation and approved the final version of the principles.

John had used the reference group to discuss particular topics, not the entire system of principles. He recognised the potential benefit of being able to refer to their acceptance of the principles, in addition to the top management group acceptance ("These principles have been approved by your head of finance and accounting as well as by your division manager."), but he felt that it would be sufficient to present the finished principles to them, rather than trying to keep them continuously updated during the development phase. The day before the March meeting John held a meeting with the CFOs, explaining the final set of principles to them.

5.3.2.3 Presenting the principles

Each division decided whom to send to the March meeting. Typically, the managing director of each company was sent, but several heads of accounting and finance, production and marketing were also present. On the first day of the main two-day meeting, the managing director of the entire group presented his vision of matrix evaluation of the entire group (the 'Group principles').[200] On the second day, the B1 top management group presented its new steering concept – the business unit/market unit matrix – and John presented the principles of management accounting and control that would support this organisation. The entire presentation was

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[200] When shortly before the March meeting John became aware that the managing director of the group was developing this concept, he was satisfied to note that the principles developed in his project were not in conflict with the 'Group principles' on any single account. John had no formal meetings with the managing director of B1, but their offices were in the same corridor. The organisational climate was informal, and the managing director used the occasions when they chanced to meet to keep himself informed of the project. Given the frequent informal contact between him and the managing director of B1, and the close co-operation between the managing director of B1 and the managing director of the group, John would have expected to be notified had there been any serious conflicts between the principles he was developing and the 'Group principles'.

at a rather high level of abstraction and contained no details (as these were not yet developed).[201] Also, it was a presentation rather than a discussion. (Over 100 people attended the meeting.)

The new steering concept presented came as a surprise to people at company level who had not had previous contact with the development of the matrix idea (mainly in The Basis). The surprise was that such a large change was presented with no prior discussion. A managing director of a company in The Basis said: "We were surprised, but thinking back maybe the presented change was not so surprising. A1[202] as well as Product group 2, Global, had matrix organisations. There had also been some discussions some years ago about strategic business units, but the strategic business unit concept that I discussed then, logical strategic business units within my area of responsibility, had little in common with the high level, operative strategic business unit concept presented at the meeting." The focus of the presentation was on the matrix concept; time plan or details for implementation were not included.[203] Thus the meeting did not initiate a bottom up discussion of how the change ought to be implemented. As the CFO of one brand company said "There was not even an indication that there was a process to get engaged in."

5.3.2.4 The new operational organisation

The markets were typically divided into market units by country (with a few exceptions) while the division into business units was limited by historical organisational boundaries and by market differences. The legal company structures of Product group 1, (North America, Europe and The Basis) and Product group 2, Global, formed the core of the four opera-

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[201] There is not complete agreement on this point. The CFO of B1 and a brand company Management Accountant maintain this was the case while John claims that his presentation was devised to be sufficiently concrete to function as a starting point for local managers to determine how the principles would translate into practice in their own company. Judging from the presentation material, it does not appear to me that the presentation contained much detail.

[202] The managing director of the entire group had (as mentioned above) previously been managing director of A1.

[203] According to listeners, that is. According to John, the presentation included the statement that budgets for 1994 should be prepared according to the new principles. He also maintains that the presentation should have been sufficient to start a debate and requests for participation on lower levels in the organisation, had the people on company levels wished to participate.

tional Divisions, and within these Divisions business units were created as logical units to be evaluated; not necessarily as legal entities. The business units typically handled one type of product each. Compromises on the pure product/market structure were made to accommodate strong practical and political arguments.

The decision to sell Product group 3 was formalised in April. Until that point, the project had to be conducted under the assumption that Product group 3 would remain part of the group, even though a sale seemed like an obvious step considering the poor financial performance of those companies.

5.3.2.5 Gradual implementation and further design

After the March meeting, John started detailing definitions of balance sheets and Profit & Loss statements for business units and market units, meeting with the CFO of B1 and the CFOs of the divisions from time to time. He wrote the accounting manual, designed the principles for budgeting and drew up the conceptual foundations for the corporate reporting system. The chief accountant of Global designed budgeting forms and led the detailed design of the corporate reporting system.

Early in 1993, the group had developed plans to move the head office of B1 abroad to where the head office of Global was situated. Neither the CFO of B1 nor John intended to move abroad. Therefore, the CFO of Global would take the position of CFO of B1 after the move. The chief accountant of Global would become responsible for the budgeting and corporate reporting systems of B1.

There were several reasons the present CFO of B1 would have the responsibility for the project until the move and then hand it over to the new CFO. When the project started in 1992 the decision to move abroad had not yet been made. Thus, the present CFO of B1 was the obvious person to head the project. At the beginning of 1993, when he was asked if he would move with the company if it were to move abroad, and he declined, the decision to move the head office was still several months from being made public. Had the project then been transferred to the CFO of Global, this would have been a clear signal that the head office would move. In addition, the CFO of B1 and John, employed by B1 directly and not by any of the divisions, were more likely to be viewed as disinterested parties in designing the new system. The CFO of Global, on the other hand, would be more likely to be viewed as representing Global. The B1 man-

agement wanted to avoid giving the impression that Global was taking over B1; the change to a matrix organisation should be B1's change, not Global's change of B1.

In May the decision to move the head office abroad after the summer, was made public. The CFO and the chief accountant of Global then started taking a more active part in the project, with the chief accountant designing the details of the budgeting system which he would be responsible for after the move. The CFOs of B1 and Global also held close contact, discussing the project as it went along.

5.3.2.6 Implementing the principles

In June the CFO and the chief accountant of Global[204] sent out budgeting instructions to all companies in product groups 1 and 2. (Product group 3 was to be sold within the year and was thus not included.) The chief accountant of Global also arranged short meetings explaining how the forms were to be filled in. These meetings were not designed for discussion of the principles and concepts. Again, people in the companies were surprised. They had not expected an implementation of the matrix concept this soon and had not been involved in discussions on the accounting concepts. For people in Global, the new principles were merely a modification of their existing ones, but for the companies in Product group 1 the matrix was a radically new concept and the terms used were unfamiliar to those who had not already begun operating as market units and business units.

In those companies which had not yet been subject to a conversion to market units and business units, the instructions raised many questions. Why were the principles defined the way they were and how should the accounting be done when it came to practical details? In companies where John had helped establish a preliminary operating profit accounting, on the other hand, there had been time for discussion, and many practical details had already been encountered in the course of accounting. His general opinion was that the responsibility for understanding the new principles and seeing to it that they were understood by those using them lay with the local accountants. He could explain if required, but the description he had prepared ought to be sufficient to allow a professional

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[204] John largely left the project in June to concentrate on the sale of Product group 3 together with the CFO of B1.

accountant to understand and apply the principles to his own circumstances. In The Basis, where conversion to the operative matrix had not yet started, he had also expressly asked the CFO if the local accountants would be able to understand and apply the new principles, and received a 'Yes'.[205]

For market units and business units dealing with many counterparts, budgeting according to the instructions became an arduous task. The CFO of B1 claims that he himself had not realised that the interactive budgeting process, successively leading to budgets that market units and business units could agree upon, would entail so much work. (The people I have interviewed use words such as 'pain' and 'shock' to describe the budgeting process of 1993.) The summer months were filled with hard work in the companies. Budgeting that year meant establishing contracts between the newly defined units, and the accounting departments had to develop information systems to support the new way of working. In September, when most company budgets were due on the 15th, the chief accountant of Global presented the information system in which all B1 units should report their budgets for consolidation. People were working overtime trying to prepare their budgets, and the chief accountant of Global had to visit companies in order to help them enter the data in the information system in the way he had intended.

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[205] 'Their head of finance and accounting has expressly said yes to the question of if they understood the new principles and could implement them. The problems they have complained about ought not to have been problems to them.'

5.3.2.7 Participation of primary actors

John devoted most of his time from November 1992 until the beginning of June 1993 to the project. From February onwards part of his attention was focused on implementing matrix accounting on site in newly formed market units and business units. In August he reviewed the budgeting progress and also took part in the process of implementing the new budgeting instructions before leaving B1.
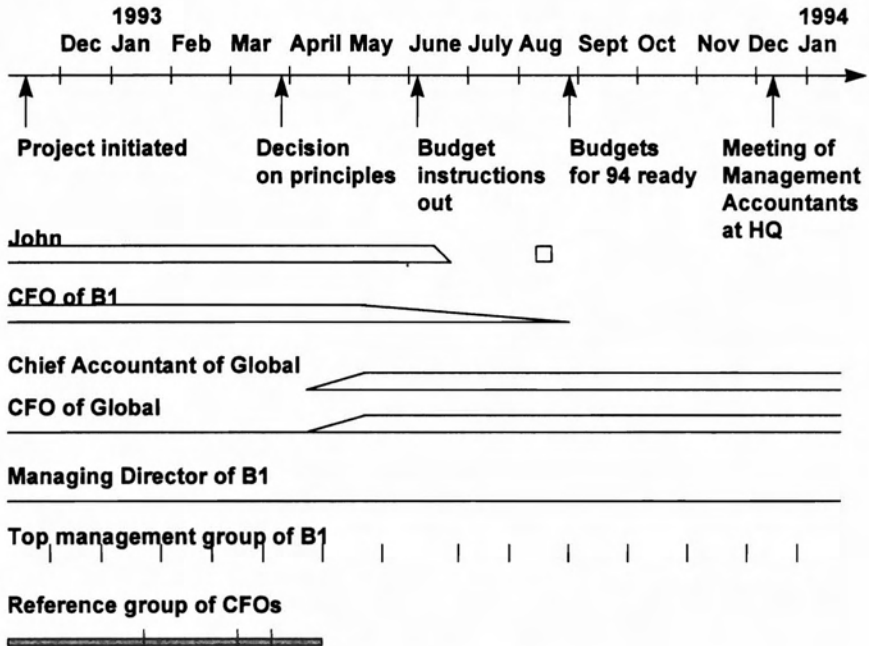

Figure 5.9 Participation of primary actors

The chief accountant of Global began acquainting himself with the project in late April 1993 and spent May doing much of the practical specification of budgeting forms and instructions. From June onwards he was responsible for the practical details of the project.

The CFO of B1 was responsible for the project from the beginning and, formally, until head office moved abroad and the CFO of Global replaced him. Informally, he began decreasing his participation in May, when the decision to move head office was made public. He thus *de facto* handed

over the leadership of the budgeting part of the project to the CFO of Global who would be responsible for the resulting system and principles.

The CFO of Global took a keen interest in the project from the beginning; in April 1993 he gradually began involving himself in a leading position in the project, unofficially taking over much of the leadership in May and formally being in charge when he became CFO of B1. He *de facto* took over the leadership of the budgeting part of the project in May, since he was the one to be responsible for the resulting system and principles.

The managing director of B1 followed the project closely from the very beginning, having close, informal contact with the CFO of B1 as well as chairing the top management group and keeping in touch with John.[206] All three had their offices in the same corridor.

The top management group mainly discussed the project at their regular monthly meetings, thus normally taking a time driven interest in the project.

The CFOs of Product group 3, and of Europe and North America in Product group 1, were engaged on a frequent, event driven basis, and, apart from a few plenary meetings, only participated when matters specifically pertaining to their own division were in focus.

The Management Accountants and the managing directors of the local companies were not involved in the discussions on a regular basis. Some of them were consulted in the early information gathering phase of the project when John was studying the accounting principles in use in different parts of the group. Some came into contact with the project when their own company was reorganised according to the business unit/market unit matrix. Many of them participated in the March meeting when the matrix idea and the ensuing accounting change were presented; their next contact with the project was when they received the budgeting instructions in June. The first gathering of the companies' Management Accountants was held in December 1993 (following an initiative from them) and was intended to give them an opportunity to discuss the new accounting system in depth in preparation for 1994 when everyone was expected to

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[206] John commented that he never had a formal meeting with the managing director, but the managing director's habit of obtaining information whenever he wanted it (for example by asking questions when meeting John in the corridor) meant that the managing director was always up-to-date regarding the progress of the project.

report into the group accounting system according to the new accounting principles.

5.3.3 Chronological summary of project events and actors

Chronological summary of project events and actors		
Date	**Event/action**	**Person**
Oct.–Nov. 1992	Need for new and unified principles of economic control recognised	Top managers of B1
Nov. 1992	John 'appointed' project manager with the objective to craft operating profit reporting during 1993 and to create a system of accounting that would support the new matrix organisation by 1994	John was appointed by the CFO of B1
Dec. 1992	Top management group meeting endorsing the project	General manager of B1 with some support
Jan. 15 1993	First meeting of reference group and steering committee	CFO of B1, John, CFOs of Global, Europe, and Product group 3
Jan.–March 1993	Review of existing principles of accounting and control	John performed the review visiting selected companies and meeting with the reference group
March 1993	Design of proposal for accounting and control in matrix organisation	CFO of B1 and John
End of March 1993	Decision on new principles of accounting and control	Discussed in top management group. Final decision on principles made by managing director of B1
End of March 1993	Conference presenting the new principles of organisation and accounting and control decided on by the top management group	Managing director of B1 with top management group and John. Division managers and the managing directors and their closest subordinates that the divisions chose to send to the conference (ca 100 people)

April–May 1993	Definition of P&L statements, Balance sheets and budgeting instructions according to new principles	John, CFO of B1, CFO and chief accountant of Global discussing with the division CFOs.
June 1993	Budget instructions sent out to all companies in B1	chief accountant of Global (but officially endorsed by CFO of B1)
Aug.–Oct. 1993	All companies report their budgets for 1994 according to new principles in stages	Management Accountant of each company
Sept. 1993	B1's head office moves abroad	Global's CFO becomes new B1 CFO. Old B1 CFO becomes CFO of The Basis
Mid December 1993	Meeting to discuss the new accounting system at new headquarters	New CFO and chief accountant of B1, and Management Accountants of all B1 companies.
Dec. 1993	Calculation of operating profit per business unit and market unit	Much of the work led by John up until June 1993.
1 Jan. 1994	Accounting in accordance with new principles standard procedure in all B1 companies.	Management Accountant of each company

5.3.4 Results achieved

In the end, all units reported their budgets on time. By the end of the year, every company also had some kind of operating profit accounting in place, and from January 1994 they all entered accounting data on a monthly basis into the group accounting system.

A tangible result of the project is thus that the matrix structure of B1 went from idea to implementation in one year, as intended. A necessary part of this matrix structure is a system of implemented principles of accounting and control that supports it, and this was indeed achieved.

One objective of the project was to provide top management in B1 with information that facilitated comparison of units within the group to further the restructuring. The means was standardisation of costing and financial reporting. The project resulted in standardisation, and the rationalisation undertaken, including factory closures and production moves, is some proof of the objective being achieved.

Another objective was to generate discussions on the utilisation of resources in marketing units between marketing and product managers to improve the use of resources from a group perspective. These discussions were taking place, as the new principles demanded them. The people I have asked all agreed that these discussions were difficult and time consuming, but none of them has claimed that the resulting resource utilisation was inferior to the resource utilisation prior to the new system.

The resulting system, however, was not completely understood by all parties, and the following summer some still felt resentment over the fact that it was designed and implemented top down with no broad local discussion. In some companies, it was not experienced as an aid for internal direction, evaluation and control, and there the old principles were still used for internal reporting. Nethertheless, some experienced that the matrix and the system of accounting and control gave a welcome boost to their efforts to get the members in the organisation to work with the profitability of the operations in focus, instead of with physical units such as tons sold.

John and the first CFO of B1 both viewed it as a successful project as it achieved its goal on time. John also claimed that the project was well anchored on all levels in the organisation (with the possible exception of within The Basis). The first CFO of B1, as well as actors on company level within The Basis, on the other hand, viewed the low degree of participation and anchoring below the top management group as the main weakness of the project. However, they differed in opinion on what form of participation would have been desirable, and on whether or not it would have been feasible within the time frame of the project.

5.3.5 Views on the process

John conducted the project in an expert fashion, designing a system *for* the users rather than *with* the users. There have been different views on the appropriateness of this project approach.

5.3.5.1 Views from the project team

As perceived by the CFO, many representatives of local management (company managers as well as heads of accounting) neither understood nor accepted the system fully. He maintained that a thorough discussion of the intended system between people from the head office and

Management Accountants in the companies would have been valuable. It should have taken place after the system was designed and should have been educational in nature; the head office representatives should have explained the system in detail and been prepared to discuss and answer any questions raised by the local managers. In this way, the local managers would have felt that the head office people took some notice of them and cared about them, and they would have come to understand the system better and thus been able to accept it more easily. The design of the new principles, however, should not have been conducted in a bottom up manner "as this would have taken far too long".

According to the CFO, the reason educational discussions were not undertaken was that both he and John, and later the CFO of Global and the chief accountant of Global, i. e. the four people who knew most about the new system, were fully occupied with the project and other tasks and had no time to spare. The short time frame of the project did not allow them to undertake the educational effort themselves nor that they trained someone else to do the explaining. John, on the other hand, saw the cost of further information and education as unwarranted; he considered the present level sufficient. "I never saw the need to ask for extra resources for educational purposes."

The CFO of B1 also expressed the opinion that the process of getting the principles of accounting and control accepted would have benefited from more attention being given to explaining and discussing the matrix with the *managing directors of the companies*. Had they understood and accepted the new ideas more fully at an early stage, he believes that they would have influenced their accounting managers to accept the accounting change instead of reinforcing their feelings of puzzlement. However, in his view, working with the managing directors was outside the scope of the accounting and control project.

According to the CFO of B1 it would also have been beneficial to the process of getting acceptance locally if he and John had discussed and explained the principles and concepts of the new system at greater length *with the CFOs of the divisions*. As it was, they were involved in the discussions to a large extent, but not necessarily to the extent that they felt they had full command of the system. This would have been within the scope of the project, but the former CFO of B1 is of the opinion that there was not enough time to accomplish this. It would also have been less important than discussions with the local management accountants.

5.3.5.2 Views from outside the project team

The local managers were critical of the way the principles were developed and introduced. They felt that the process of learning to use the new principles had required far more effort than necessary, and that the resulting system did not serve the organisation as well as it could have.

The people I have interviewed agreed that the system was valuable at group level, but the people on lower levels felt that it could simultaneously have been devised to be of greater use at their level. On those levels, it was felt that the project was designed to improve the information available at group level, and not at and below company level. At division level, the problem was seen to rest with the implementation of the principles rather than with the principles themselves. At company level, however, there was also some discontent concerning the fit between the management accounting principles and local idiosyncrasies of the business activities. In addition, there was some concern that the instructions were open to a certain degree of interpretation, which could result in different interpretations of definitions of information elements in different parts of the organisation. As a consequence, the standardisation and thus comparability across units could be less than perfect, but without being realised when such comparisons were made on the group level.

Thus, a definite feeling existed that the system was designed for transparency from the group level down, but so far not for usefulness at or below division level. This was not just a matter of finding it difficult to use and understand the new principles, and to derive useful information from the system. At the local level, there was a touch of resentment over the degree of scrutiny of units which the system made possible at group level. At brand company and division levels, I heard accounts of instances of people calling from head office to question local performance based on accounting figures that actors at the local level had not yet had time to analyse.

The local managing directors and management accountants believed they should have participated in the development of the principles and that there should have been more *horizontal* interaction (on their level) instead of the vertical, selective interaction between the local level and the project group that now took place. Horizontal interaction could have helped develop consensus definitions of terms which fitted the different units, and which they felt reflected the organisational realities better than the new principles that were developed. It would also have provided a forum in

which the amount of work required to implement alternative principles could have been realistically estimated. One Management Accountant referred to a 'vacuum' between the March meeting and the issue of budgeting instructions in June – time lost at the local level. He suggested to me that there should have been an early discussion[207] of concepts among the management accountants.

A managing director and his Management Accountant suggested that a first round of instructions should have been issued and time allowed for local work along these instructions. After this attempt to turn the principles into practice, it would have been time to meet for a few days to discuss how to deal with any problems encountered and how best to take advantage of the detected possibilities. Understanding the practical implications of new principles was no trivial task.[208] It was a difficult, if not an impossible task to achieve at a purely intellectual level without some degree of testing in practice.

The view on the local level was that involvement of this kind would have been time well spent as it would have eliminated many of the problems and frustrations encountered during the budgeting process, and led to an acceptance of the system on the basis of understanding and participation. If they had participated, they could have developed an understanding of what the principles would mean, how they would be applied, and the reasoning behind design choices. They could also have helped develop principles that they felt described the operations the way they understood them, and they could have helped base choices of design on realistic estimates of the work required to operate the resulting system.

5.3.6 Concluding remarks

This case illustrates how the project manager's patterns of communication may influence the end result regardless of his intentions. Despite the project manager's intention to produce principles that would serve top level as well as local level needs, and his view that he had succeeded in this, the fit appears to have been better at top level. The project manager believed in constructing an 'objective' set of principles of management accounting

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[207] In to his view, a three-day session would have allowed time to understand and explore the implications of the suggested concepts and principles.

[208] This view was shared by all interviewees who had experienced the implementation of the principles.

and control. He tried to do this by conducting the project as an expert analyst, gathering information, analysing, and deciding, but not involving local representatives or inviting a broad discussion. The discussions on design which he held were with accountants at the top of the hierarchy, who he believed could discuss design issues in an objective manner.

This case also illustrates how top management support may be sufficient to allow the introduction of new principles of management accounting and control regardless of stakeholder appreciation of the principles, but that it is not sufficient to guarantee that the principles will be used by information users. The project was started on top management initiative, and the project manager saw top management authority as an important ingredient in the entire process. Based on the official top management sanction, the principles were also implemented, but not necessarily used as intended by the project manager. Some stakeholders at a local level did not discard the old principles when supplied with the new. They used the new and the old principles in parallel: the new for reporting upwards, and the old for deriving information for use on the local level.

6 Analysis

I have studied a number of management accounting and control projects, focusing on how the project managers have handled other stakeholders' perspectives. In terms of Figure 6.1, their handling of perspectives is 'Action', manifested in communication or lack of communication and the role it has served in the creation of the system of principles of management accounting and control. These actions have partly been shaped by the situation in which

Figure 6.1 Background, Reason, Action, Consequence

they have been performed ('background' in the figure), partly by reasons for performing them ('reason'). Reasons may be the actors' intentions, or ideas of consequences that the actions will produce. 'Reasons' in the figure may also refer to reasons for performing the action as such, without a specific idea of consequences of the action. The way of handling the perspectives of others has had consequences. Reasons as well as consequences are also shaped by the situation, the 'background' against which they are constructed and evaluated.

In this chapter I analyse and discuss my observations, using the framework I developed in chapter 3 (summarised in section 3.4). The chapter consists of three sections. In the first two I concentrate on analysing and discussing what the project managers did to create principles of management accounting and control that were appropriate, understood, and accepted, and if the systems they developed were indeed perceived as appropriate, if they were understood, and if they were accepted. Both sections start with an analysis and discussion of the cases from chapter 5, one by one, followed by a discussion of patterns across the cases and comparisons with the cases in chapter 4.

The first section focuses on the first part of the chain in the figure; i. e. the patterns of communication ('action') developed by the project man-

agers, and the reasons for them. In that section, appropriate, understood, and accepted, serve as a structure of reasons for the communication within which I discuss in terms of who, what, when, and how.

The second section focuses on the second part of the chain, i. e. the consequences their ways of handling the perspectives of others had on the appropriateness, understanding, and acceptance of the system. There, appropriate, understood, and accepted, as consequences of the actions, appear more in the foreground of my analysis.

The third section of the chapter discusses a recurring problem of communication in the project managers' search for perspectives, namely the mismatch between feedback the project managers sought from intended users, and the feedback the project managers received, and explores possible interpretations of the mismatch. The project manager believes he has designed a system that is appropriate, understood and accepted, and that this has been confirmed by stakeholders whose perspectives he has sought, but then, typically during or after implementation, signals contradicting the belief start to appear. I first discuss the mismatch as an infological problem and then examine it as a result of defensive routines.

The chapter closes with a discussion of phase concepts used to specify the 'what' aspect. A modification of the view of appropriate phases and processes is developed. This modified phase-and-process view highlights aspects of attention to perspectives that warrant more attention, as indicated by the analysis of the cases.

6.1 Attempts to create successful systems

I have presented above the processes of the projects I have studied as I have understood them, and below, I analyse the pattern of communication of the project managers. First, I analyse the cases according to what the project managers sought to achieve through their communication. The framework for this analysis is developed in chapter 3 and summarised in section 3.4 above. Thus, for each of the four project managers in the three cases F, G, and H, I attempt to identify what the project manager did (and some of the things he did not do) to meet the goal of creating a system that was:

1. appropriate
2. understood
3. accepted.

I am not saying that the project managers explicitly relied on this three-goal structure. I take the purposes the project managers have given for their actions and use the three goals as a structure in which to discuss these actions. The three-goal structure is employed as the first level of sorting of the analysis. Within this structure I discuss who was involved in the patterns of communication, what the subject of the communication was, when the communication took place, and how – the form and importance of the communication. An example: under 'accepted' I discuss who the project manager attempted to get to accept what. ('What' could be, for example, the principles, a specific use of the principles, or the project as such. 'Who' is largely in terms of roles in relation to the management accounting and control system.) When during the process (in terms of process phases) did he pay attention to the goal 'acceptance', how did he attempt to get people to accept what he wanted them to accept, and how did he check what they had accepted and not accepted?

After the analysis of each case, I attempt to identify and discuss patterns across the cases.

6.1.1 Case F

The project manager in F was a young accountant who received the project manager job as his first assignment after the trainee period. The design of activity-based costing in the production units of the company was a requirement from company top management. He saw his role as that of setting up and aiding local projects to design and implement activity-based costing systems. The local approach he saw as a natural consequence of the corporate culture, and important in order to achieve a lasting change.

Below I review the case in terms of what the project manager did to address each of the three demands on a successful system identified in section 3.3.5, i. e. that it be appropriate, understood, and accepted.

6.1.1.1 Attempts to create appropriate principles

The project manager sought accuracy by first seeking descriptions of the business activities from most of those responsible for and engaged in the activities: from shop manager down to foremen, and informally even with workers. He thus sought input from a broad range of people who worked in the business activities the principles were to depict; people who, in

terms of roles in relation to the management accounting and control system could be classified as 'those described'. He used a production engineer (one of 'those described') to help him understand the input he received from the others.

The next step was to design the principles based on the input he had gathered. There too he relied to some extent on the participation of one of 'those described'.

Opinions on the accuracy of the description provided by the principles he then sought mainly from the managers of 'those described' and from a headquarters management accountant, a 'system operator'.

The project manager did not elaborate on the question of who would be information user and would need (new) costing principles. If he could develop costing principles that he and those who knew the business activities in the production units well would consider as reasonably accurate (and better descriptions of the activities than the present principles) he considered the principles appropriate. This led him to view the undertaking as one that only concerned the production unit and the central accounting unit.

The sub-project manager continued in the same manner as the project manager, but gradually took on the role of an expert, enlisting less active participation in investigation and design from those described. However, he still checked with the managers of those described that they saw the principles he developed as providing accurate descriptions.

6.1.1.2 Attempts to make the principles understood

The project manager explained the activity-based approach to the production unit managers at the outset of the project, but apart from that he largely relied on the new principles being easy to understand since they would be based on the descriptions of the activities that they gathered from those conducting the business activities. When the principles were finished, the project manager and the sub-project manager presented them to the higher managers in the production unit. They also directed explicit educational efforts at management accountants at the local level and at headquarters. They did not attempt to educate potential information users outside production.

After implementation the sub-project manager explained the principles on request to those middle managers who would budget according to the new principles. (These middle managers belonged to 'those described',

but now also took the role of 'information users'.) He then realised that the principles were not quite as easy to understand as he had assumed.

6.1.1.3 Attempts to get the principles accepted

The project manager wanted the sub-projects to be, and appear to be, local projects, and not a headquarters venture, since he believed that the continued application of the new costing scheme would have to rest on local commitment. (His opinion was that if it were to function, people at the local level would need to be committed to maintaining it.) Other aspects of people's perception of the project were not specifically addressed by him, and he did not reason in terms of 'customers' or 'affected'. This was in line with his initial view of the objective of the project as a technical task: that of creating and implementing a costing model that provided a more accurate description of the costs incurred in production than that provided by the current model. The idea that people would stand to win or lose from this change was not prominent in his mind.

To achieve the local approval, he had a plan for the initiation and hand-over of the projects to local actors, emphasising top management acceptance and participation, and placing as much as possible of the actual investigation and design in the hands of local actors. He started the sub-projects by setting up steering committees consisting of the top managers (and the accounting manager) of the production unit, explaining the new costing concept to them and what the project would entail. They then discussed and agreed on staffing, timing, and sequencing of the sub-project. The project then continued with introductory meetings with foremen and production engineers explaining how the interviews would be performed, education of the local project team, and gradual handing over to them. All this was done to actually, not just symbolically, make the undertaking a local one.

His attempts to anchor the new system focused mainly on the management level of 'those described'. He invited them to staff the sub-project organisation and decide on when the sub-project would take place. He explained the finished principles to them and asked them if these were acceptable. The project manager's reason for communicating with the employees on lower levels was to gather information rather than to anchor the new principles with them.

The local 'system operators' and 'system owners' (the local accounting staff and its manager) were also very much in focus in the project man-

ager's attempts to anchor the system. Because of their future roles as system owners and system operators, he believed that the success of the system hinged on their feeling of ownership of it, and saw to it that they played a leading role throughout the process.

The project manager did not try to anchor the principles with information users outside the production unit as he did not realise that there could be a difference between 'accurate' and 'acceptable' there.

6.1.2 Case G1

G1 refers to the project led by the first project manager in case G.

The project manager saw himself as a missionary for a new approach to management accounting and control in the company, and indeed as a pioneer in the entire group. It was 'his' project.

Below I review the case in terms of what the project manager did to address each of the three demands on a successful system identified in section 3.3.5, i. e. that it be appropriate, understood, and accepted.

6.1.2.1 Attempts to create appropriate principles

The project manager sought accuracy by interviewing 'those described', starting at the top and moving down through the hierarchy. In production he interviewed the top management team and a few foremen. In the administrative and support units in production he only interviewed the managers. In the marketing section he interviewed all product managers and representatives of those in support units with whom they interacted. To ensure that he understood the interviewees correctly, he asked a local representative (the production head of accounting and a product manager in the marketing unit) to participated in most interviews. The project manager documented the interviews and submitted the documentation to the interviewee and the local representative for comments.

The project manager designed the costing model in discussion with the local partner in production (the local 'system owner'). They then discussed the proposed model with the production manager and then presented it to the production management team, adjusting the model according to opinions they received from these managers. (The project manager viewed them as both 'described' and as 'information users'.) They then presented the costing model and resulting product costs to the company top management team and then made them available to the

product managers (receiving no further requests for changes). (The product managers would be 'information users'.)

When the project started, the project manager had a clear idea of how the new costing principles should be used. He had developed this idea in discussions with the general manager and a consultant. As he saw it, his mission then was to spread this understanding to others in the organisation rather than to listen to what the different information users perceived as their information needs.

6.1.2.2 Attempts to make the principles understood

The project manager invested some effort at the outset in explaining the activity-based approach to the top management team in the organisation. During the interviews with 'those described' he also found reason to explain the cost driver concept to enable them to describe their business activities in those terms. He did not, however, try to educate the future 'information users' or explain the costing model to them. He did not view the understanding of the new principles as a problem which needed to be handled proactively. Instead, his approach was that if there were specific questions on the final costing model, the people he had enlisted as local partners in the investigation and design phases would explain (and defend) the principles if the need arose.

6.1.2.3 Attempts to get the principles accepted

With his background as a salesman, the project manager put great emphasis on selling the project and getting it accepted. He saw two parts in this. One was to gain top management backing to signal that the undertaking to design new costing principles was important and that these principles would be implemented. The other was to find ways to anchor the project locally, to prevent it from being viewed as a headquarters staff project.

He believed that the new costing scheme would be controversial once it was adopted, and then top management backing and local anchoring would be needed to help it survive.

Top management he addressed by trying to make them interested in the new costing approach by stressing the benefits it would bring. Once the general manager had become interested, the project manager tried to keep the attention of the rest of the management team on the project by sending out documentation and calling frequent meetings to report on the progress of the project and to discuss further steps to be taken in the process.

As a part of the sales process, he wished to show quick initial results. This led him to advocate, and gain top management acceptance for starting with the production part of the organisation, although this only represented a minor part of the total costs in the organisation. He had previous experience from activity analysis in production and knew that he could perform it and could foresee the results of the analysis, but analysing white collar functions was unknown ground to him.

In production, he tried foremost to gain local acceptance by having the production accountant manager as his partner. Other actions included involving the production manager in discussions about the costing model, and trying to get the production section managers to state their cost drivers rather than deriving them from his own analysis of descriptions of the activities performed.

In the marketing section (the product group), the project manager adopted a similar approach to invoke a sense of the project as a local venture. The marketing section had no obvious 'system owner', so the project manager asked the section manager to select a product manager (one of 'those described' by this part of the system, and simultaneously an 'information user' of this as well as of other parts) to help him with the interviews and the analysis. That the section manager selected this local partner and that the partner participated in the interviews and to some extent in the creation of the model, the project manager saw as ways to get those two committed and via them signal that the project was anchored locally. There too he discussed the descriptions with the section manager, not only to hear his opinion, but also to gain support for the new model through the section manager's acceptance of it and his authority. The project manager's perception was that once the section manager accepted the model, the project manager's part in the anchoring process at the local level was finished.

In neither the production unit nor the marketing section part of the project did the project manager try to involve very many 'information users' in the design phase.

6.1.3 Case G2

Case G2 refers to the project led by the second project manager in case G. The young project manager saw her task as that of designing management accounting principles that accurately described the business activities. She

saw the principles as the basis for an information system that would need to be maintained and updated.

Below I review the case in terms of what the project manager did to address each of the three demands on a successful system identified in section 3.3.5, i. e. that it be appropriate, understood, and accepted.

6.1.3.1 Attempts to create appropriate principles

The second project manager started out in the style of interview and analysis set by the first product manager, but soon felt that she wanted to seek accuracy in the long term, rather than just trying to create a one-off model. She wanted to design a system that could be kept correct over time with little demand on the time and effort of those described. She thus sought ways to use data produced for other reasons as sources for analysing activities and updating the model. As a start, however, she and two fellow project team members interviewed most of the employees in the product organisation and the managers of support and staff functions. In her own function (accounting and control) she used a questionnaire instead of interviews. To validate the results she sent documentation of the interviews back to the interviewees, and also checked the results against other available data. Unlike the previous project manager, the team members did not use local partners. Firstly the project manager did not want to pose that demand on the time of people in the organisation. She was even unsure that she would find people who would be willing to co-operate in that role. In addition, she felt that the job could be performed more quickly with a dedicated project team without local temporary members.

The project manager checked the descriptions the project team arrived at with the reference group consisting of the head of accounting, two members of the top management team (managers of information users) and the head of the computer department. The project team then designed a costing model, discussing it with the head of accounting, and then referred it to the entire reference group for their opinion. As a next step, the project manager calculated sample product costs according to the new principles and again checked with the reference group that they found them reasonable. She then sent the sample cost calculations to all cost centre managers ('those described'), visited them and asked if they saw the calculations as reasonable descriptions. The final step was to calculate the entire product range according to the new principles and to explain them to managers of 'information users', i. e. the product group managers and the product section

manager who was not part of the reference group, to check that they saw the new product costs as accurate.

The project manager had assumed that her task was to produce principles of costing that would provide an accurate description of product costs. When she presented the design of the costing principles to the reference group, they raised the question of information needs. The project manager and the reference group members discussed and agreed on a list of who could be considered information users and in what decision situations they would be information users. She did not pursue this question further by, for example, discussing with the information users they had identified.

6.1.3.2 Attempts to make the principles understood

The project manager responded to criticism of the principles by trying to explain the logic of the models and trying to show that they provided fair descriptions of the cost relationships in the organisation, but these were explanations prompted by complaints, rather than proactive educational efforts. She did not stage specific proactive activities to directly educate information users.

However, in her attempts to ascertain that the principles she developed were accurate, she tried to check that managers among those she had talked with seemed to understand the principles. In the reference group she had two high managers of 'information users' (the sales manager and a product division manager), a 'system owner' (the head of accounting) and a manager of 'system operators' (the EDP manager). Other counterparts were managers of 'those described' (cost centre managers) and managers of 'information users' (product group managers).

6.1.3.3 Attempts to get the principles accepted

The project manager's view on getting the system accepted was to construct descriptions that those described and those with hierarchical power over information users found accurate. To achieve this, she checked her interview documentation with those interviewed, and tried to cross validate the descriptions by comparing them with data from existing formal information systems. She repeatedly checked with the reference group that they found her results acceptable (at the end of the investigation phase, and after each major step of the design phase). She not only distributed the

sample cost calculations to the cost centre managers asking for reactions, but actually visited them and discussed with them.

When she had developed complete cost calculations of the product range according to the new principles, she presented the results to the top management team, results that by then had been accepted as accurate by those described. She did this more to inform them than to legitimise the project in the eyes of those at lower hierarchical levels. She then visited the product section managers to explain the logic behind the calculations and to get the new principles and the resulting calculations accepted, bringing the head of accounting along to signal that the matter was important.

In her contacts throughout the project, she tried to keep the focus on discussions on how the business activities are actually performed and how they interact. She did not actively seek to form opinions on how different people in the organisation thought and felt about the activity-based approach to management accounting and control. She tried to handle those who voiced criticism of the new principles and the resulting costs by explaining the logic of the principles and trying to show that they reflected the cost relationships in the organisation. She did not try to create local champions who could anchor and defend the new system. Neither did she try to gain acceptance for the new principles by referring to top management sponsorship.

6.1.4 Case H

The project manager in H saw himself as an expert on management accounting and control. He saw the task of designing principles as predominantly an analytical one. It consisted of finding out what characteristics of each type of business activity were important for judging the profitability, and then devising principles of management accounting and control that would allow the treatment of the organisation as a production/market/brand matrix. He would be the one to judge which aspects were important, and his goal was principles which would provide relevant information on group as well as company level.

Below I review the case in terms of what the project manager did to address each of the three demands on a successful system identified in section 3.3.5, i. e. that it be appropriate, understood, and accepted.

6.1.4.1 Attempts to create appropriate principles

The project manager sought accuracy by seeking descriptions of the business operations of the units from those he believed had a good understanding of the operations, not necessarily those who performed them. His aim was to determine the business logic of the different types of units. The lines he searched consisted of divisional CFOs, unit general managers, and unit top accountants or other top functional managers. His approach to information gathering was based on sampling rather than a complete survey. He thus sought input from a number of (but by no means all) top managers of 'those described'. These managers would also be among the 'information users' of the future system. The company accountants could largely be viewed as 'system operators', while the divisional CFOs were more 'system owners'. He used his own judgement, and feedback from the group CFO as the instrument for determining when he had sufficient information.

Regarding the needs for information, he also used his own judgement, relying on his analysis of the business logic as the basis for determining what would constitute useful information when managing and controlling the entire group and its parts. This he discussed with the group CFO and the divisional CFOs he had selected. As they all belonged to the top of the accounting and control function of the organisation, they could be regarded as 'system owners', but only representing one type of 'information users'. The project manager did not choose to discuss his perception of information needs with lower or higher managers in the 'line organisation', who represented the largest proportion of potential 'information users'. Nevertheless, he maintained that the new principles of management accounting and control would serve users at a central as well as at local levels in the organisation. The project manager seemed to adhere to a belief in an objective quality standard for the principles rather than viewing quality as a social construction where different individuals could hold different, but yet relevant, opinions.

6.1.4.2 Attempts to make the principles understood

The project manager did not regard the issue of understanding the principles as a major one. During the design phase, he visited a number of companies who were early in adopting the new principles in their accounting to help them do this. The focus there was on instructing and helping the local accountants (the 'system operators') with the implementation. In a

way, it could be claimed that these visits were intended to ensure that the local 'system operators' understood the principles, but the design of the principles was not at that time complete and documented for use. His local presence was thus prompted more by a need he felt to instruct the 'system operators' on what principles to use and to handle design choices in real time when the principles designed so far were insufficient, than by a need to ensure that they understood a documented set of developed principles.

When the project manager had finished the design of the new principles and these principles had been approved by the top management group, he presented them to the divisional CFOs ('system owners') and to a gathering of unit managers ('described' and to some extent 'system operators' and 'information users'), but again, this was more a matter of brief information than one of in-depth education. The presentation to the divisional CFOs was more comprehensive than that to the unit managers, but neither contained a test of to what degree the audience had understood the principles.

The project manager held the view that the responsibility for understanding, and promoting the understanding of the principles, rested with the local system operators. When the principles were to be implemented in the budgeting process, the project manager documented the principles and wrote budgeting instructions. He believed that his documentation of the principles would be sufficient to enable the local accountants ('system operators') to understand them so they could apply them if they tried. He also asked the head of accounting in one division if this would be the case, and took his affirmative answer as proof that the unit accountants would indeed be able to understand and apply the principles.

6.1.4.3 Attempts to get the principles accepted

The project manager saw signalling that the principles he developed would actually by applied, as an important part of his undertaking. His main strategy was to anchor his project and the principles with the top management of the organisation, and to signal their sponsorship to those at lower levels; to information users as well as those described, and system operators. He addressed the anchoring with top management by regularly referring design issues to them for approval, directly or via the group CFO. When meeting local managers during the information gathering phase and later in the project, he explicitly referred to the top management support and interest he felt he had.

In addition to this, he also tried to signal that he was genuinely considering input from the entire organisation through his choice of interviewees in the investigation phase. (As pointed out above, this did not entail a complete coverage of the organisation at the unit management level, and his aim to signal interest did not include seeking input from lower hierarchical levels.) As a contrast, he did not view the design phase as an occasion for anchoring by inviting the participation of stakeholders, apart from requesting approval from the top management team. Neither did he try to disseminate information in the organisation about the project or its progress.

When he had designed the principles, he relied on the assumption that the top management decision to implement the principles would ensure that they were applied and accepted.

6.1.5 Patterns in attempts to create successful systems

This is a cross-case comparison of the ways the project managers have addressed creating a system that is appropriate, understood, and accepted. Within each of these issues, the focus of this comparison is on *who* the project manager has communicated with, on *what* was communicated, *when* the communication took place, and on *how* power and initiative over the principles were handled in this communication. *Who* is largely discussed in terms of role in relationship to the system of management accounting and control. *What* is studied in terms of if the project manager is attempting to obtain input or is primarily sending, and if the communication centres on the business activities, on the principles being developed and the needs they are to fill, or on the effects of applying the principles.

Under each of the headings Appropriate, Understood, and Accepted, I start by analysing the cases in chapter 5, and then compare the results I arrive at with the cases in chapter 4 in sections entitled Comparison with cases in chapter 4.

6.1.5.1 Appropriate
The project managers invest a great deal of energy on information gathering (input to base the design on) to create what they view as an accurate description of the operations. They focus on how the business

activities are performed and put much less emphasis on determining user needs and on identifying consequences of applying new principles of management accounting and control in the organisation. The project managers thus do not view appropriateness as a complex issue. Designing an appropriate system amounts to designing a system that they and people who know the business activities view as an accurate description of those business activities. However, as Hopwood noted,[209] discretion and choice exist in designing the descriptions. Thus, there may be more than one description that could be viewed as accurate by someone who knows the activity described, but it is not obvious that the particular description chosen will be perceived as an appropriate description by an information user who has not been consulted.

The project managers in cases F to H are ambitious in their information gathering regarding the business activities. They all perform many interviews and at different levels. Who they choose to interview differs between projects depending on the size of the organisation in question. When the project manager is attempting to describe a large organisa-
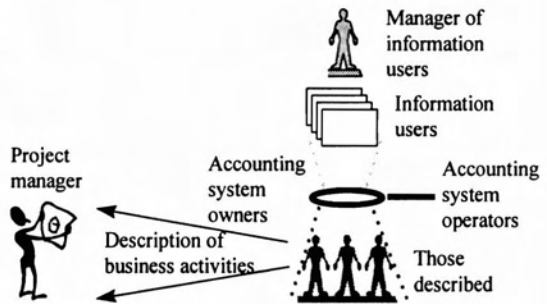
Figure 6.2 Seeking descriptions of business activities from 'those described' during investigation phase

tion he focuses on lower hierarchical levels, rather than increasing the total effort. Or seen from the other side, when the project manager is attempting to describe a smaller organisation, the lowest hierarchical level of informants he uses is lower than in a larger organisation, rather than restricting the information gathering activities to higher levels and thereby saving time.

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[209] See p. 83 above.

One way the project managers typically addressed accuracy in design (G2 being the exception) was having one partner in the design team (of two or three people) who 'knows' the business activities. The 'knowledgeable partner' could be a 'described' (as the production engineer in F) or possibly both 'described' and 'information user' (as the product manager in G1) from the line organisation. [Both are examples of representative participation, where the representation was kept low in numbers (one person) as well as in control of the design (consulted rather than controlling).] The
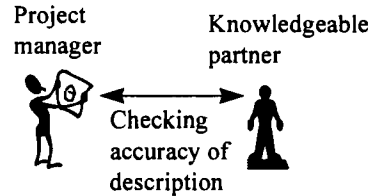
Figure 6.3 Validating description by use of knowledgeable partner

'knowledgeable partner' could alternatively be neither 'described' nor 'information user', but rather a 'system operator' or a 'system owner' – an accountant, (as the management accountant in G1 and the CFO in H). A common trait among the local partners was that they were selected because of their knowledge of the business operations described, rather than because of their knowledge of the activities in which the information was to be used.

How the project managers checked that they had understood the interviewees correctly, in addition to relying on the 'knowledgeable partner', differed according to the type of project. In the costing projects the project managers checked their perception of the descriptions given by the interviewees with the interviewees (during the information gathering phase) and with higher level people with knowledge of the activity in question (at the end of the information gathering phase). In the 'matrix'-case the project manager conducted limited checks, primarily with high level accountants (during the information gathering phase).

No project manager gave much importance to asking information users about their information needs. The approach they chose was logical deduction, which was more or less explicit. In the matrix case (H), it was more explicit. The project manager felt that he could deduce what information managers at different levels would need from the system. In the costing cases, the project managers' reliance on logical deduction of user needs was less explicit. They all started out by designing
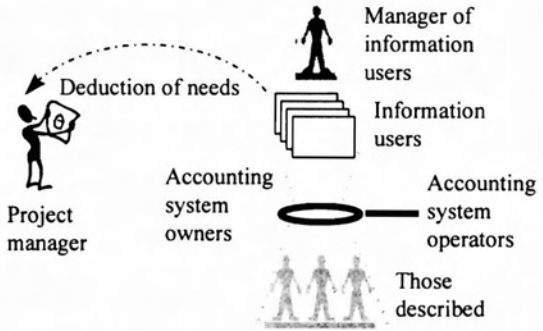

Figure 6.4 Information needs derived by deduction rather than investigation

principles that would provide descriptions of selected units, and by asking for approval of them, rather than by actually trying to list users and needs.

The project managers' information gathering took place at the beginning of the projects, concentrated in an investigation phase. Their checking of their picture of the business activities with people who they believed knew the activities started in the investigation phase and continued at the end of the design phase, when they typically asked higher managers of those described if the principles developed provided a description of the business activities that they found accurate.

Although the project managers, themselves accountants, often relied to a large extent on other accountants during investigation and design, they typically referred approval of the final design to high level managers who were not 'system operators' or managers of 'system operators'. These high level managers were not necessarily the managers of all those affected by the system ('described' as well as 'information users'). In G1 and H, the project managers chose to refer the final decisions to the top of the hierarchy. In F and G2, top managers had sanctioned the projects, and the project managers did not refer the approval all the way back to the top. In F, the project manager stopped at the top of the hierarchy of 'those described' and in G2 the project manager stopped at the top of the hierarchy of the 'information users'.

Comparison with cases in chapter 4

The pattern, identified above, of placing considerable emphasis on gathering information about the business operations the principles will describe, but little emphasis on obtaining input on user needs from prospective information users, is not uniformly paralleled in the cases in chapter 4. In some cases, there is instead a strong focus on information user perspectives from the very beginning.[210] In one case (Bringing cost-consciousness to the mutual insurance company, 4.1.3), the project manager starts by paying lip service to researching information user perspectives by sending a letter requesting opinions, and then not following up on the issue when the response was scarce. In 'Management accounting change in a bank' (4.1.1) there is a specific 'fact finding' activity, directed at understanding the business activities described, but there is no explanation of how it was carried out. In yet other cases, there is little evidence that any direct input was actually sought from either information users or 'those described'.[211] There is, however, some indication in 'An activity accounting project in the electronics industry' (4.1.8) of the pattern I observed. In that case, one team member is from manufacturing, the part of the organisation being described (the other two are from the accounting and the information systems departments). There is also some indication that the product team sought and obtained additional input from other members of the manufacturing department, but largely ignored the would-be information users in the marketing and the R&D departments.

Thus, there are examples of more as well as less ambitious attempts to perceive other people's perspectives with regard to creating an appropriate

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[210] Notably in 'Local development at the road department' (4.2.2) and in 'Local development at the social welfare department' (4.2.3), but also in 'Successful development and implementation of a company-wide information system' (4.1.7). 'Successful development and implementation of an accounts payable system in a redesigned accounts payable function' (4.1.6) is of another character, as the project team redesigns the operations, but there too they start with the requirements. (That project team then is mainly composed of representatives from the activities being redesigned.)

[211] Inattention to seeking input is explicit in the central level project in Uppsala (see section 4.2.1.3) and indicated in 'An attempt to change an embedded cost accounting system' (4.1.4) and in 'A financial information system at Golden Triangle' (4.1.2). In 'Resistance to accounting change' (4.1.5) managers and other representatives of the units described volunteer their views, but the project manager is not interested, and maintains his own opposing view.

system. The project managers in cases F to H appear neither at the top nor at the bottom of the range. They focus on obtaining input on descriptions of the operations from 'those described'. Others seek more of a dialogue rather than seeking input first and checking later.[212] Some communicate with information users (regarding information needs) as well as with those described,[213] and some even discuss perceptions of effects with information users and those described.[214] On the other hand, some also seem not to focus on even obtaining input on any account from either those described or from information users.[215]

As could be expected, this input seeking (or the discussions) took place early in the projects.

6.1.5.2 Understood

In section 3.2.3, I discussed the balance between seeking and disseminating information. A project manager may need input, but he may also need to attend to what others may want to know from him. A focus on informing others about the existence of the project and what is being done in it, could be expected to help develop understanding and acceptance of the principles being developed, as well as to increase the likelihood of receiving input that the project manager has not thought of asking for, or not realised how to obtain.[216] Given this, it is interesting to note that the project managers in my cases all placed a greater emphasis on information gathering than on dissemination of information. They communicated with others in order to gather the input that would enable them to design principles of management accounting and control, and their output was the principles rather than communication regarding the principles.

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212 4.2.2, 4.2.3, and 4.1.7.

213 4.2.2, 4.2.3, 4.1.7, and 4.1.6

214 4.2.2 and 4.2.3

215 4.2.1.3, 4.1.4, 4.1.2, and 4.1.5

216 These benefits were among those identified in section 3.3 as results of the two-way communication obtained through user participation.

The project managers displayed a consistent pattern by placing little focus on trying to get the principles or the logic of the system understood by the information users prior to implementation. To some extent, they presented the principles or made them available to information users, or managers of information users, but in no single case did the project manager explicitly test if the information users understood the principles. Neither did they test the understanding of 'those described'. To the extent that the project managers asked 'those described' to evaluate the accuracy of the descriptions the principles provided, they did not test how well those they asked understood the principles.

Figure 6.5 Little testing of understanding and little explicit development of understanding

The project managers seem to have shared an implicit assumption that what they considered to be good principles providing accurate descriptions, would not be difficult to understand for those who would be expected to use them. The project manager in F created a short course in activity-based costing that he held for the project teams and gave to his colleagues in the central accounting staff, but in no case did a project manager devise or apply an education scheme to information users (or to those described). Neither did they communicate in less formal ways with users or those described during the investigation and design phases with the explicit goal of developing their counterparts' understanding of the principles they were developing.

Comparison with cases in chapter 4

In this respect, only two of the cases in chapter 4 differ considerably from my cases. In two of the Uppsala cases [Local development at the road department (4.2.2) and Local development at the social welfare department (4.2.3)], the information user understanding seems to have been in focus in thought as well as in action.[217] The project time schedule
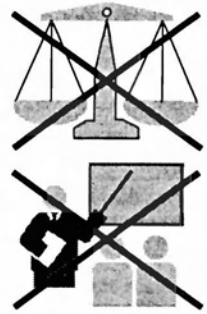
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[217] In yet one case (Successful development and implementation of a company-wide information system (4.1.7)), the project manager took care to keep everyone informed on the progress of the project, to invite comments and to communicate how the project team had paid heed to the comments they received. In addition, there were specific training sessions prior to implementation. It is, however, not explicitly stated in the text that the

was deliberately designed to allow for slow development of the new principles together with the local information users, and in step with their learning. It may be noted that the project team member who was most active in promoting user understanding was a researcher from a university. (The project time schedule had a similar design in the central project in Uppsala, but there no one took the initiative to turn the intention into action.)

In two other cases,[218] the actual attention to information user understanding came after implementation, when the project managers or the system operators were made aware by the information users that they did not understand the new principles. In 'Management accounting change in a bank' (4.1.1), this realisation and the ensuing dialogue between system operators and information users came several years after implementation. In 'An activity accounting project in the electronics industry' (4.1.8), the project manager had planned a substantial 'learning period' during which system operators and information users would have the opportunity to gradually learn about and understand the new system. In action, however, he abandoned the learning period when he ran into difficulty with meeting the overall project time schedule.

6.1.5.3 Accepted

The project managers displayed a wide range of approaches in getting the principles they developed accepted.

They all considered it important to have top management approval, mainly to secure resources and attention for the project in the organisation so the project could progress, but also (to differing degrees) to further the acceptance of the principles developed. (For the manager in F, top management meant the top management of each production unit.) The project managers in F and G1 attempted actively to convince the top managers of the benefits that could be gained by conducting the projects. The project managers in G2 and in H started out with top managers supporting their projects. All project managers took the initiative to report back to the top managers, informally or in formal project presentations.

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training was directed at the information users of the management accounting system, and not just at the system operators.

[218] 'Management accounting change in a bank' (4.1.1) and 'An activity accounting project in the electronics industry' (4.1.8)

Apart from the top managers, all project managers also targeted the system owners and operators – the accounting function (or at least the top of it) in the organisation. In all projects, the project manager employed the head of the accounting function as a speaking partner to some extent, thus continuously checking that the development had acceptance from that source. In F, G1, and G2 the project manager also used an accountant below the top level as a project member – to help in the work, certainly, but in G1 and in F also because the project manager saw participation as a means of achieving acceptance and ownership in the local accounting departments. The focus on the accounting function could be expected for several reasons: access to subject knowledge, and anchoring with system owners and operators, as suggested above, but also for reasons of similarity. As Boland and Tenkasi proposed,[219] discussion within a 'community of knowing' is facilitated by similarities in perspective, and it could thus be expected that the project managers would tend to communicate with those with whom they find communication relatively uncomplicated. Being accountants, they tend to find it easy to communicate with their functional colleagues.

All project managers started and finished by securing approval in two groups: top management and the top of the accounting function. First they secured approval of the project, and then approval of the principles developed.

The focus on information user approval differed between project managers. The project managers in G1 and G2 sought it directly by giving those they saw as users a chance to object to the principles before they were implemented. Seeking it directly from the users was thus not synonymous with seeking it actively. If the users did not voice objections, the project managers took this to mean approval. The project manager of H referred the principles to the information users at the top of the hierarchy for approval, while relying on the power of the hierarchy to achieve acceptance from information users on lower levels. The project manager in F tried to get the managers of those described to view themselves as information users to raise their interest in the project, but did not see the acceptance of information users outside the production unit as an issue that needed to be addressed.

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[219] Discussed on p. 58 above.

The focus on approval by 'those described' also differed among project managers. When 'those described' were perceived as 'owners' of the change process – able to stop it in some way – the project manager could try to involve or appease them (striving for an 'invented here' feeling, as the project managers in F and in G1 did with the managers in the units described), or use arguments of hierarchical power to force them to accept (as the manager of H did.) Apart from that, the acceptance of 'those described' sought by the project managers was limited to having them attest to the descriptive accuracy of the principles (in cases F, G1, and G2).

To conclude, the project managers do not seem to have viewed securing actual acceptance from all stakeholders as necessary. Judging from their behaviour, they seem to have believed that as long as top management and system owners formally approved the principles, and strategical system operators developed a sense of ownership of the principles and the system, the project would result in a successful system of management accounting and control. The project managers in G1 and G2 also gave the information users they identified a chance to react to the new principles, but without making certain that 'no reaction' was equivalent with actual acceptance.
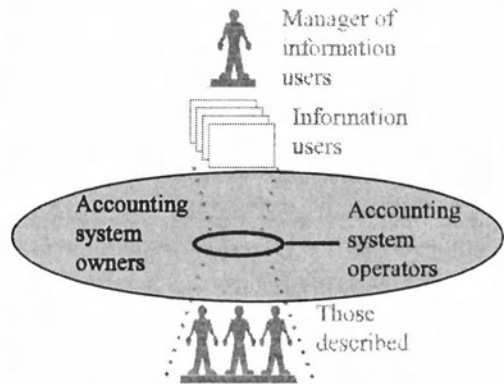
Figure 6.6 Focus on gaining acceptance from system owners and key system operators

Comparison with cases in chapter 4

Regarding ways of getting the system accepted, the cases in chapter 4 could be sorted into three groups: those who deliberately relied on hierarchical power, those who viewed voluntary user acceptance as the key to success, and those who seemed to believe that the system would be accepted by the stakeholders based on its technical merits.[220]

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[220] Successful development and implementation of an accounts payable system in a redesigned accounts payable function (4.1.6) falls somewhere in between these groups. In

In the group relying on hierarchical power, one case is a matter of strict management fiat by headquarters regarding use on the local level,[221] while the project managers in the other two cases wanted to secure formal consent from local top managers. In 'Resistance to accounting change' (4.1.5) the project manager held private meetings with the directors to obtain their consent before raising the issue in the decision forum where the directors and the unit managers all participated. Being faced with the fact that the directors had already said yes, the unit managers did so too. The project manager then used this decision to carry the project to implementation in the face of local resistance. In the central project in Uppsala the intention was to interact with the local managers. "We must not run over the service departments, they must approve our proposals before we proceed."[222] The actual behaviour was more one of demanding acceptance based on top management decisions than one of finding ways to achieve voluntary acceptance.

The cases in which the project manager took user acceptance as the starting point differed somewhat. In the road department project (4.2.2) and the social welfare department project (4.2.3) the approach was rather informal. The project team interacted with the information users, and discussed with them throughout the development to make certain that the principles being developed felt relevant to them. In 'Successful development and implementation of a company-wide information system' (4.1.7), the process seems to have been more formalised in terms of user participation and user approval of stages, but there the project manager also employed broad communication of what was happening in the project to give stakeholders an opportunity to react. In addition, he performed employee attitude surveys repeatedly to ensure that any discontent did not go unnoticed.

In the third group of cases, the project managers seem to have been so focused on developing what they saw as appropriate solutions that they did not give much thought to the question of how the systems they were

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that project, a first step was to secure a consensus decision from top managers in the function being redesigned. Then they worked with representatives in the project team and tried to behave 'correctly' towards stakeholders, informing them of consequences, and paying attention to problems as they appeared. The style was one of non-confronting, top-down determination.

[221] 'A financial information system at Golden Triangle' (4.1.2)
[222] See section 4.2.1.2

creating would come to be accepted. In two cases,[223] the initiative for the project came from information users dissatisfied with the existing systems. Despite this, the accountants who led the projects conducted them in isolation from the information users, believing that they were creating highly appropriate systems which as a result would be used. The third case in this group [An activity accounting project in the electronics industry (4.1.8)] was also conducted with little attention to most of those whose behaviour it was intended to affect. The project team did, however, include a member from manufacturing, the function primarily described by the principles being developed, and repeatedly during the design phase checked to what extent the principles were accepted by those described and by information users in manufacturing.[224]

It can be noted that the focus on information user acceptance displayed in the second group of cases was not paralleled by any case in chapter 5. To some extent, it resembles the project managers' attempts in F and in G1 to achieve a sense of local ownership, but the project managers in cases 4.2.2, 4.2.3, and 4.1.7 seem to have gone much further in sharing control over the development with a large number of the local actors (notably information users) than the project managers in F and G1 did. The cases 4.2.2, 4.2.3, and 4.1.7 appear to have come close to what Hirschheim termed participative development.[225]

Hierarchical power played some role in all cases in chapter five, most notably used by the project manager in H, but in all cases combined with a strong belief in the convincing power of the technical merits of the principles designed. This combination of reliance on hierarchical power and technical merit seems to distinguish the cases in chapter five from 'Management accounting change in a bank' (4.1.1) and 'An attempt to change an embedded cost accounting system' (4.1.4), where the reliance on technical merit was not supported by attempts to gain or use top

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[223] Management accounting change in a bank (4.1.1) and An attempt to change an embedded cost accounting system (4.1.4)

[224] 'Bringing cost-consciousness to the mutual insurance company' (4.1.3) is a case which could almost be included in this group. The project manager wanted to create information user acceptance by asking for user needs at the start, but then, prioritising speed ahead of anchoring, he moved forward without it, hoping that any problems could be dealt with later on. He then circulated his suggested design to the managers of the information users and those described, but again continued without trying to ensure that his suggestions were accepted.

[225] See p. 70 above.

management acceptance. However, 'An activity accounting project in the electronics industry' (4.1.8), resembles my cases in this respect too. The project had high management support from the start and was conducted in a way that helped it gain acceptance from the accounting department and a certain degree of local anchoring in the manufacturing department.

6.1.5.4 Summary

The project managers in my cases all focused more heavily on information gathering than on dissemination of information. They communicated with others to gather the input that would enable them to design principles of management accounting and control, and their output was the principles rather than communication regarding the principles. In their information gathering, they place a strong emphasis on those described (see Figure 6.7) and on understanding their business activities rather than on the information users and their needs. The information gathering was concentrated to the beginning of the project. It is reasonable to refer to an *investigation phase*. In chapter 4, it is not obvious that a distinct information gathering phase exists in each project, but the slight emphasis on dissemination of information is to be found in many cases. There are, however, notable exceptions.

Figure 6.7 Focus on those described during information gathering

During *design,* the project managers in chapter 5 communicate relatively little, and then mostly with functional colleagues, who will mainly be in the roles of system owners or system operators once the principles are implemented (see Figure 6.8). The communication then is largely of a consulting character. The project managers perform most of the design on their own, giving little actual con-
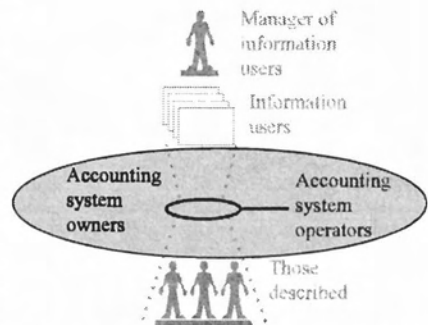

Figure 6.8 Focus on system owners and system operators during design

trol over the work performed to others. In the cases in chapter 4 there were examples of this behaviour, but there were also some examples of project managers performing the design in a dialogue with a large number of stakeholders.

Towards the end of the design phase, the project managers in chapter 5 give a 'veto control' to managers, primarily to managers of 'those described' and less so to managers of information users. By 'veto control' I mean that the managers are asked if they accept the principles or not. It is a reactive type of control. It is not a matter of giving the managers a proactive type of control over the design. In addition, the question on which the project managers seek the managers' opinion is: "Do these principles accurately depict the business activities?", rather than inviting a discussion on the degree to which the principles are designed to provide information that is needed by different users and to produce desirable effects in the organisation. Such a discussion does not seem to have been invited by the project managers in the cases in chapter 4 either, except in the cases that had a strong user orientation right from the start.

Summarising the 'what' dimension of the communication, it can thus be said that the project managers in the cases in chapter 5 placed a much larger emphasis on perceiving others' perspectives on the business activities described, than on the information needs that the principles are to meet or on the effects the specific design of the principles can be expected to have. With few exceptions, this also seems to hold for the project managers in the cases in chapter 4.

Figure 6.9 Focus on description of business activities

The focus along the 'who' dimension among the project managers in chapter 5 varies over time ('when'). It can roughly be summarised as a strong focus on 'those described' during information gathering, a focus (although less intense) on system owners and system operators during design, and on higher managers of those described (and to some extent on managers of information users) prior to implementation. In chapter 4, there is more variety. In some cases, it is not obvious that there was much of an information gathering phase. In other cases, project managers had a
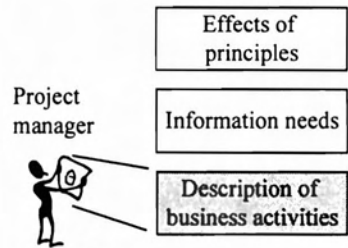
strong focus on information users during the information gathering phase, but then on information users who were also 'those described'.[226]

Regarding the 'how' dimension, I note that the project managers in chapter 5 keep strong control over the process of developing principles of management accounting and control. The least amount of control seems to be awarded information users. The project managers rarely discuss with them prior to implementation, but may inform them of the final design. Those described are given some more control, although indirectly. Many of them are interviewed, and their descriptions of their business activities form the basis on which the project manager builds the principles. Some selected system owners and system operators are invited to participate in a dialogue concerning the actual design of the principles, and they may thus influence the design of the principles. This influence takes the form of being consulted rather than deciding. Managers on different levels (primarily higher, and to a large degree in the hierarchy of 'those described') are given a 'veto control', a reactive type of control over the principles, and the project manager attempts to explain the principles to these managers. Their acceptance is thus not a mere formality. The project managers make some attempt to ascertain that these managers have a chance of understanding the principles which they are being asked to accept.

Most project managers in chapter 4 also seem to award little control to others. Predominance of communication with functional colleagues appears to be common. Regarding control awarded to information users, there seems to be a large degree of variation: some project managers largely ignore the information users; some listen to certain information users, but seem to fail to identify different groups of information users; some deliberately select a group of information users and give their interests priority at the expense of information users with conflicting needs or interests; some give considerable influence to one group of information users but try to ascertain that the interests of other information user groups are not neglected.

The pattern in chapter 5 of giving 'veto control' to managers, and trying to explain principles to them, does not appear in all cases in chapter 4. In some cases, it seems that the new principles are applied based on staff acceptance only, and in some cases they are applied despite explicit opposition from managers of 'those described' and local information users.

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[226] In 4.2.2 and 4.2.3 the project team concentrates on stakeholders in the local departments, consulting information users on higher levels later and in a far less interactive way.

6.2 Others' perception of the process: consequences of the project managers' behaviour

In the previous section, the focus was on what the project manager did to develop a system that was appropriate, understood, and accepted. In this section, I will discuss the consequences of his behaviour. Did it lead to a system that was viewed as appropriate, that was understood and that was accepted? To a large extent, this analysis is based on how stakeholders other than the project manager experienced the development processes. I begin by analysing the projects in the same order as in the previous section. This is followed by an analysis in which I attempt to identify patterns across the cases, also making comparisons with the cases in chapter 4.

6.2.1 Case F

6.2.1.1 Were the principles viewed as appropriate?

The managers of those described, as well as the management accountants locally and at corporate headquarters, came to view the new principles as providing more accurate descriptions of the actual cost relationships in production than the old principles. The accuracy of the descriptions was not challenged by the managers of those described. Rather, the new principles were viewed as providing a description with an accuracy that to some extent surpassed their previous understanding of the activities performed and the costs incurred.

The project manager gradually came to realise that those described felt no particular need to become information users of the product costs, the initial objective of the project, but that the principles developed could be interesting as descriptions of the activities performed. He experienced that the new principles helped shape a new language for discussing the activities in production.

Information users outside production who experienced large changes in the information they received as a result of the change of principles (and who had had no contact with the process of designing the principles),

regarded the new principles as inappropriate. To some extent they were convinced, by the explanations of the system designers, that the description provided by the principles was indeed an accurate representation of the cost relationships. To some extent they were not convinced, maintaining that principles resulting in costs that they saw as unreasonable could not be accurate. This latter criticism led to certain modifications of the principles.

6.2.1.2 Were the principles understood?

At the outset, the interviews with those described took the shape of explorative discussions that helped those interviewed begin to understand the new way of viewing the operations. Gradually, the interviews became more focused on fact finding, and had little or no educational effects on those interviewed. This resulted in differences between lower production managers in their ability to apply the principles when it came to preparing the budget. The sub-project manager then had to compensate for his previous inattention to the managers' understanding of the principles by explaining the principles individually to those who had problems applying them.

The lack of proactive education of information users *outside* production also had some negative consequences. The information users who encountered sharp cost increases without understanding why, were upset. The project manager's surprise at the users' reactions in turn stemmed from his unawareness of their use of the information.

I believe that the ensuing discussions could probably have been avoided to some extent, and been conducted in a more constructive tone had the project managers tried to help the information users gain an understanding of the principles prior to their implementation. Such an educational effort could also have prevented the information users from reacting defensively against the strange new costing principles, which they were doing, by helping them adopt an active attitude to identifying how their behaviour could influence the costs.

6.2.1.3 Were the principles accepted?

Within production

The project manager's attempt to make the sub-project manager feel responsible for the project and its results worked very well. The sub-project manager is proud of the new principles as a construction he was instrumental in bringing about. He and the local accounting department have assumed responsibility for keeping the principles in use and the information system updated.

Local top management accepted the project as well as the resulting principles. Their acceptance was in turn brought about by company top management determination to implement new principles, and by a project set-up that made the local projects local. Local top management endorsement in turn helped bring about acceptance of the new principles among those described, but this acceptance was not simply a consequence of management fiat. It also built on the interest that the project manager and the sub-project manager had shown in the work of those described during their ambitious rounds of interviews. The project manager's attempts to make the project feel like a local undertaking thus helped foster acceptance of the resulting principles.

The importance of how the interviews were conducted showed itself at budgeting time. The positive results noted in the previous paragraph were related to the early, discussion-like interviews. The later, strictly fact-finding interviews had led to poor understanding and little sense of creating the solution, which in turn led to low acceptance. Private helpfulness during budgeting time, explanations and concern from the sub-project manager then led to acceptance of the new principles in most cases.

Outside production

The project manager had not tried to check what views were held by potential information users outside production concerning costing principles or use of costing information. Neither had he tried to explain the new principles to them prior to implementing them. Initial acceptance among users outside production depended on the degree of impact of the new principles. For those users who experienced little change in costs computed according to the new principles compared with the old, acceptance was no major issue. Those users who experienced dramatic

change, however, reacted strongly and found it difficult to accept the new principles. Only after the project manager and the sub-project manager had explained the new principles, and made some modifications of the principles according to the wishes of those users, did they accept the new principles. (He thus had to attend to how well the information users understood the principles, as well as to their perception of what would be appropriate principles, in order to get them to accept the principles.) This acceptance, however, did not stretch to using the costing information actively to change behaviour which, according to the new principles, resulted in large costs.

6.2.2 Case G1

6.2.2.1 Were the principles viewed as appropriate?

The managers in production view the principles as an accurate description of their activities. The company top managers did not feel they could question the accuracy, but the information users who were surprised by the new costs or who were negatively affected by the new costs, took as their starting point the view that the new principles must be inaccurate. After discussions with primarily the chief accountant in production they now may agree that the principles are accurate, but they still do not consider them as completely appropriate. (They also invest some energy in looking for inaccuracies in the data.)

Appropriate according to whom and by what criteria?

The product manager who participated in the product group pilot project is not quite satisfied with the production costing principles. He thinks that they ought to reflect less of actual practice than good practice. If, for example, the purchase of inexpensive components draws considerable administrative resources, the inefficiency ought to be an internal question for the section performing the work rather than being passed on to later steps in the value chain.

This displays a difference in what is viewed as information needs, and what the new principles ought to be appropriate for. The product manager believes that the costing principles can well be used to pinpoint inefficien-

cies in a department.[227] There is, however, a difference between appropriateness in that situation and what principles are appropriate for costing when used as information about production costs of specific products. He and other information users who criticise the present principles believe that such costs should be based on reasonable practice rather than actual practice. Certainly, the product managers could identify activities that they view as too expensive in another department, and ask that the other department takes steps to improve its efficiency, but their view is that such inefficiency is outside their control and should not be allowed to affect their department by being included in the product cost.

The project manager, the chief accountant in production, and to some extent the top managers, have a different idea. Their view is that everyone needs to see a description of actual costs. If these costs are not considered as acceptable by the user, he is free to put pressure on the department where the cost arises to bring it down. Awareness of costs is important as such, and a debate over costs and an increased understanding of cost relationships across departments is viewed as both desirable and as a logical consequence of displaying actual costs.

These different views of what is considered appropriate thus seem to stem from different views of how the data are to be used, and therefore different views of the information needs. The project manager did not ask the product managers (production cost information users) about their information needs and the project manager did not try to ascertain whether they would perceive the production costs as appropriate information. He had a strong view of what would be appropriate principles of management accounting and control, and tried to win adherents to that view, but he did not open a forum for discussion of alternative views. Neither did he expressly state the view that underlay the new principles when the first round of cost computations was distributed to the intended information users, the product managers.

This case shows that officially disregarding the possible existence of alternative views did not make them disappear. There is no way of knowing if the differences in views could have been overcome by explicitly identifying them and discussing them at an early stage in the project. What can be identified is a number of consequences of the way the project manager handled the matter.

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[227] That would be to use the costing principles for activity based management.

Neither the chief accountant nor the product managers were aware of the difference in views on what would constitute a useful cost computation. Much of the discussion during the implementation phase centred on accuracy as if they had the same criteria for judging accuracy when in fact they had not. This relates to the issue of understanding the system (to be discussed below).

Another consequence of the project manager's focus on descriptive accuracy according to his standards and those of the managers in the unit described, excluding the user views, was that the information users came to view the production part of the principles as someone else's invention. This relates to the issue of acceptance, which is discussed later.

Perception of accuracy and the balance of power

In the theory chapter, it was noted that changes in principles of management accounting and control affect the balance of power in the organisation. The extent to which the new principles are felt to affect the balance of power seems to influence how intense the discussion on accuracy becomes. In the production department, the project manager signalled that the purpose of the first part of the project was to achieve an accurate description of the cost relationships in production. The analysis did not provide the production manager with any major surprises, and he did not use it to question the present use of resources. The chief accountant as well as the section managers perceived the present operations as being quite efficient. The analysis did not provide a threat to anyone's integrity and they found it relatively easy to agree on what they all viewed as an accurate description.

In the product group the project manager, in agreement with the group manager and the managing director, had the explicit aim of producing a description that could be used to question the use of resources in the department. There, several individuals experienced the interview as an intrusion. The discretion of the individual to choose how to spend his day was threatened. The issue of arriving at an accurate description of the activities performed and the objectives of the activities, was highly controversial and required long discussions. The project manager took the stance of a 'hard analyst' in creating what he saw as an accurate reflection of the information he had gathered, while the product group manager paid considerable attention to the signals which he felt the description sent. The resulting description was one that the project manager, the product

manager, and the product group manager all viewed as sufficiently accurate for use in increasing the value added produced by the group members.

Thus, as could be expected, the issue of accuracy of a description was more controversial in a group where the description was felt to affect the balance of power between the members, than in a group where it was perceived by the members as having little impact on their autonomy. In the more complicated group, the project manager left much of the work of sorting out the controversies to the local representative and his manager. In the less complicated group, the project manager had a more directive approach. As it was, the members in each group agreed that the description of their own operations was accurate. It seems unlikely that the project manager could have achieved such an agreement in the product group, had he as an outsider with no hierarchical power tried harder to dictate what constituted an accurate description.

6.2.2.2 Were the principles understood?

The project manager concentrated on getting top managers and his local active partners to understand the principles and their potential use. He believed that they could then help others understand. Studying the understanding of the principles which different stakeholders developed, and how they developed it, shows that the issue of understanding is possibly more complicated than the project manager envisaged. The approach he chose had a rather limited reach in the organisation.

Passive and active understanding, 'laymen' and 'experts'

In production, the managers whom the project manager had interviewed and whom he had asked to validate the costing model, believed that they understood the principles well enough to accept them as an accurate description of cost relationships in their own activities. They were, however, not charged with actively using the new principles and thus were not confronted with a test of their actual understanding. (They were not required to become information users.) The chief accountant prepared the budget based on their evaluation of to what extent circumstances had changed since the principles had been developed. Thus the project manager's local active partner became, and remained, the expert, while the managers around him still had, and needed, no more than a passive understanding of the principles.

The project manager did not include the product managers (information users) in the process during the investigation and design phases of the production costing principles. When presented with the resulting product costs, they appeared to understand them through their (silent) acceptance of them, but when it came to applying the principles it turned out that their initial understanding had not encompassed the consequences the new costing principles would have on their work. They then reacted by criticising the principles, not by requesting to have the principles explained to them.

The chief accountant, whose active participation in the investigation and design phases the project manager had enlisted, became an expert on the production costing model and explained and defended it, just as the project manager had intended, to those who questioned it. At first he viewed information user resistance to the new product costs as a result of insufficient understanding of the new principles. The resistance and criticism that remained after several rounds of explanations he came to view as a political act, rather than as a response that could be legitimately based on a perception of information needs that differed from his own view. Thus the chief accountant could meet some of the educational responsibility the project manager transferred to him, by explaining the principles to the users, even if he could not convince them to adopt his view of the principles. Neither did he adopt their view. It seems that the feeling of ownership he developed by participating in constructing the principles also entrenched his view of what was to be considered appropriate. With the principles already implemented, interaction with the information users was for him not a question of discussing alternative views of what would constitute appropriate principles, but a question of defending the view the new principles had been built on.

The process of understanding

The marketing manager and the managing director both view understanding as a process, where understanding the model well enough to view it as a description of the cost relationships is a first step. Further steps are understanding the new principles as a tool for evaluating the way business activities were performed, and as a tool for the evaluation of marketing strategy. The project manager tried in particular to help the top managers see the management and strategic aspects, and they feel that they understand the principles as well as their possible uses, and are confident

that eventually all, or at least most members of the organisation, will too. Their view is that such a process takes time, and that trying to hurry that process too much would require a proportion of the total resources available in the company that exceeds the relative importance of the issue.

The product managers in the product group that was described in the pilot attempt to create an activity-based costing model of that part of the organisation, gained some understanding of the model developed there, and the interdependencies between organisational functions that it described. There was, however, a marked difference between the understanding of the new principles that those interviewed developed and that developed by the product manager who actively participated in the project. He became the local expert, and the others seemed content to ask him for his opinion rather than to try to understand the principles themselves and draw their own conclusions.

The project manager's use of a user representative as his partner in the investigation and design phases resulted in that particular information user developing a very deep understanding of the new system. It did not, however, lead to a spontaneous transfer of knowledge to the representative's colleagues (fellow information users).

When the principles had been in use for some time, a range of approaches to understanding the principles had developed. At one extreme there was a 'power user', such as the product manager who had participated in the product group pilot project. He took an active interest in developing his understanding of the principles and the cost relationships they described so that he could judge how applicable the information provided by the product cost calculations was in a given situation. At the other extreme there was an information user who requested a simplification of the costing scheme, a request that showed he had not understood the basic cost/volume relationship. Somewhere in between the extremes was the person pricing spare parts. When he was introduced in the process at the implementation stage, he appeared not to understand the principles (because he did not accept their description of cost relationships as valid). After repeated explanations, he still maintained his position, but more as a result of a different view of how to use the costing information than as a result of not understanding the model.

One factor that seemed to influence the learning pattern of the information users in the product group, was the degree to which they experienced the activity-based analysis as an interesting inroad to a new way of think-

ing or as a threatening questioning of the way they spent their time. The project manager, enthusiastic about the new costing approach, did little to handle the feelings of those interviewed. For those who found it interesting, the interviews prompted them to start to question what they did and why they did it. For them it was the start of a process of increased understanding of their work, and in a way that would also help them understand the new system. This understanding according to the ideas underlying the new principles, however, did not necessarily lead them to view the set of principles that came to be established, and the information they received from the system, as appropriate for their purposes. For those who viewed the interviews as a violation of their integrity, the reaction was defensive rather than exploratory. They did not start to learn about their work or the system that was being developed. When the new principles were implemented, they simply continued to view the new principles as inappropriate for them, and as producing data that did not provide them with the information they needed, and were therefore not worth learning about.

6.2.2.3 Were the principles accepted?

The project manager's strategy in getting the new principles accepted built on a combination of top management support and local anchoring. The top management support would guarantee the project resources and attention, and would also help lead to acceptance in the organisation. He would gain top management support by getting the top managers to appreciate his ideas, and later by showing results in terms of project progress. Initial top management acceptance and their continued attention would be gained through active sales efforts directed at them. He would achieve the local anchoring by having a local representative who participated in the investigation and development phases.

Top managers – managers of information users

Among the top managers, who (apart from the financial director) can be regarded as managers of information users rather than as system owners, the project manager's strategy had some effect initially. During his preliminary sales efforts, some of them found the idea of activity-based costing and activity-based management attractive. Others did not. After that, those who were not positive do not seem to have been converted by his sales efforts, and some of those positive remained positive to the idea

despite the project manager's sales approach, which they found pushy and lacking in substance.

The managing director quickly became interested in the new principles and supported the project. He also participated visibly when he felt that his participation was needed. (During the investigation and design phases, however, he saw no reason to make public appearances on behalf of the project, apart from at the start-up meetings.)

The marketing director, who was also manager of a product division, believed in the value of improving the quality of the principles of management accounting and control. He initially became affiliated with the project for formal reasons (organisational position) rather than because of an active interest. When he realised (with astonishment) how much time the project required from members of the product division, he did not try to influence his subordinates to continue, but left that decision to them. Primarily, he has been interested in the project from the point of view of his own department. He views himself as the manager of an important group of information users, and sees himself having a double role to play. One is to influence the project and see to it that it tries to achieve goals that he views as worthwhile. The other is to signal to his subordinates that the new approach to management accounting and control is good, and that he supports them in their efforts to adopt it.

The manager of another product division was not positive to the new costing approach. He has not been included in the project, and he as well as his subordinates appear negative to the new management accounting and control principles, and view them, and work with developing, updating or using them, as an unnecessary burden.

Top management support seems to have been important in securing co-operation in the project and acceptance of project results, but it took directions based on the relationships and informal communication channels that existed prior to the project. This may be a result of the project manager's quick win strategy, focusing on success. Instead of trying to make those who were reluctant become positive by, for example, targeting management led activities at them, the project manager left them alone; he did not include them in meetings or select them for pilot projects. As a consequence, some parts of the organisation came much further than others in applying the principles. Top management knowledge of the actual state of acceptance and use in the less prioritised sections of the organisation became based on generalisations from the successful depart-

ments rather than on actual practice in the less interested ones. It seems that top management initiative made a difference where it was applied, and the results of the project would have benefited from more even targeting in the organisation.

Local representatives – system owners and 'power' information users

The project manager's strategy seems to have been successful regarding the local representative in the production part of the project. The chief accountant in production has in front of others accepted the costing system and supports it and defends it since it describes his part of the organisation and he is the system owner. He believes it is better than the previous one, but is actually critical of how the principles were derived, and of the principles themselves. He believes that the resulting system could have been more useful to him as well as easier to understand and interpret for information users later in the value chain had the project been run in a different way and with other priorities. Despite what he thinks of the project and its results, he has acted as a system owner regarding the part of the system that describes production. Taking this position, he has helped legitimate the new principles in his own part of the organisation. He has also defended and explained the principles to information users later in the value chain.

Regarding the product manager, who was the local partner in the production group part of the project, the project manager's strategy also had some of the intended effects. The product manager accepts the portion of the new principles that was produced in his own vicinity and with his help, but questions the production cost part with regard to the accuracy of data as well as the accuracy of some parts of the principles. Thus, participating in one part of the project did not automatically make him accept the results of another part of the project. Regarding the effects of the product manager's participation on the product group manager's acceptance, the views differ. In the project manager's opinion, the product group manager accepted the new principles describing the work performed in his product group when the product manager vouched for its accuracy. The product manager has a different view of the process – one that includes animated discussions with the product group manager, and according to which the product group manager's point of view helped shape principles that they could both see as reasonably accurate, and at the same time acceptable.

The local participation from the product manager, as well as the involvement shown by the project manager, and the attention from the managing director, all seem to have helped the new principles become accepted and adopted in this product group. There are, however, differences in acceptance and use across product managers.

The participating project manager now has the informal role of local expert. The others turn to him, the local 'expert', when they do not understand the intricacies of the costing principles, rather than trying to learn more about the principles themselves. He also notices that he has accepted the new principles to a greater degree than most others. He actively uses the new costing scheme to judge profitability. He also uses his knowledge of the costing scheme to judge how he evaluates the costs in a given situation, and finds this important. He notices few others who share his view of how to use the costing principles. Many of the others view such considerations as unnecessary attention to detail. The participating project manager also notices a difference between older hands and younger. For example, the older ones have accepted the new principles to a lesser degree than the younger ones. Also, the older ones tend to use the costs to base prices on, while the younger base prices on what the market seems to be willing to pay, but use costs to judge profitability.

The person pricing spare parts belongs to those information users who use costs as a basis for pricing. He was completely left out of the project by the project manager. He now finds the new principles unusable for pricing decisions as the costs derived by them appear unrealistic to him.

I note that on the local level as well as on the top management level, the project manager sought the co-operation from those who showed an interest in the project rather than trying to work with those who were indifferent or negative to it. There is no way of knowing if he would have had greater overall success had he behaved differently,[228] but the large differences between those who participated and those who did not, as regards acceptance as well as understanding, indicate that the process of anchoring and diffusion of knowledge is neither quick nor strong if left to itself.

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[228] It could, however, be noted that the researcher in the social welfare department project to his surprise found that the division he had expected would be most negative to the project turned out to be the most positive to work with once he had actually started discussing with them. It is thus not certain that expected resistance will materialise.

An additional aim the project manager had when enlisting local participation was that the project should not be seen as a head office staff project. In this regard he seems to have been successful, but the very local character of the sub-projects seems to have led to another form of not-invented-here reaction. The production part of the project became viewed, by information users later in the value chain, as a production department invention.[229] This led the production managers to ask for the visible support of the managing director and that he would explain to the rest of the organisation that the project was based on top management initiative.

Local participation did thus not appear to increase cross-functional acceptance. Neither did it appear to increase within-function acceptance across units. The product group that was the site of the pilot project in that part of the organisation helped develop an activity-based cost model of their operations which they accepted, but which was of limited value for gaining the next product group's acceptance of the approach.

6.2.3 Case G2

6.2.3.1 Were the principles viewed as appropriate?

The recurring contacts the project manager had with the steering committee led to them feeling that the costing principles developed were appropriate. They helped define what they saw as information needs and they judged the descriptions that the new principles provided as accurate. The managing director shared the view held by the steering committee members.

Achieving accuracy

The project manager had a strong focus on developing principles that provided accurate descriptions of the cost relationships in the organisation. Although she ran the project as an expert study, with no local participants, she made certain to check with those described that they perceived the description as accurate. What she noticed was that their acknowledgement

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229 There was a similar reaction in 'An activity accounting project in the electronics industry' (4.1.8). There the researcher even encountered a designer who saw the new costing principles as an inappropriate attempt by manufacturing to affect the behaviour of the designers.

of the principles as accurate was but a superficial test of their accuracy. Repeatedly she met acknowledgement of the principles, only to learn later that they had been based on misunderstandings on the semantic level. She and the interviewee had used the same term but attributed different meanings to it. These misunderstandings were detected when she presented actual calculations according to the principles, and when the calculations described objects of importance to the person who evaluated the calculations. Without any calculation, the differences went undetected. Furthermore, if the object described was unimportant to the person who evaluated the calculations, he would not thoroughly check the correspondence between the calculation and his own view of the object described.

She tried to address the dissatisfaction with the production costs that she met from information users, by explaining the principles to them. Even though this helped them perceive the principles as more accurate descriptions than they had thought prior to the explanations, it did not result in any feeling of ownership. The project manager tried to involve the product managers by requiring them to update the production volumes of their products themselves. She issued instructions on how to perform the updating, but was surprised to find that many of them did not bother to conform to the instructions, and yet did not hesitate to come to her complaining that the costs were inaccurate. Feeling responsible for the usability of the system and unable to influence the behaviour of the product managers, she responded by entering the updates herself. In doing this, she reinforced the product managers' feeling that the quality of the information provided by the system was not their responsibility.

Meeting needs

When the project manager has explained the new costing principles in the product division which was not represented in the steering committee, product managers have asked for tools that would help them apply the principles in situations that they find important. The project manager has responded to these requests by noting that such a tool would have a limited number of users and that the development of such a tool is not prioritised for the time being. This lack of responsiveness has not helped the already low enthusiasm about the new principles in that product division. This is an example of a need which the project manager had not identified at an early stage and which she had not tried to meet.

Regarding the list of needs the reference group and the project manager developed based on their own knowledge and experience, the application of the principles developed so far has shown that their notions of needs correspond well with the needs actually experienced by the users. It therefore seems that the competence of the group was sufficient to enable them to understand the information needs in those situations that they identified, but that certain situations perceived as important by some information users were not identified by this limited group who represented high-level managers of the information users.

6.2.3.2 Were the principles understood?

The project manager applied a top down approach to spreading knowledge about the new principles she developed. She presented and explained them to the reference group and to the managers of those described and the managers of information users. They felt they understood the principles, but whether this was sufficient to transfer the knowledge the information users needed was still not tested when I performed my interviews, as most parts of the organisation had not yet started to apply them.

The product managers used the production costs developed by the previous project manager, but there was little evidence that the process of developing similar activity-based principles of management accounting for the product groups had any effect on the product managers' understanding of the principles of management accounting by which the production costs were derived. The project manager received criticism regarding the product costs that was similar to the criticism presented the year before.

6.2.3.3 Were the principles accepted?

The managers the project manager has met and discussed with have accepted the new principles of management accounting, but while I performed my interviews there was no test of to what extent the information users had accepted them. I heard no accounts of controversies in developing the principles similar to the controversies in the product group in the G1 project, but those controversies seemed to stem from the product managers' strong feelings of involvement in the issue. In the G2 project, there were no accounts of strong involvement during investigation or design, only some reports of people being curious or showing boredom and a lack of interest.

The project manager's explicit focus on developing principles that provided accurate descriptions of the cost relationships in the organisation in the eyes of those described and of managers, left the process of anchoring the principles with the information users to others. She ensured that the reference group members and the managing director believed in the appropriateness and usefulness of the principles that were being developed, by anchoring the way she conducted the project with the steering committee, and by reporting the progress to the managing director, who showed an interest in the project. When they felt that management intervention or participation was required, they accepted the responsibility for the anchoring part of the process that the project manager left to them.

The project manager's way of performing the project as an expert investigation rather than enlisting the participation of local partners thus left no engaged proponents or local experts in its wake, but neither did it seem to evoke strong opposition. Her way of relegating responsibility for the anchoring process to the steering committee and the management committee appeared to be accepted by them.

6.2.4 Case H

The project manager conducted the investigation and design phases much on his own, with no local partner. During design the group CFO was his main speaking partner.

6.2.4.1 Were the principles viewed as appropriate?

Achieving accuracy

The project manager and the CFO both felt that the principles provided a good description of the business activities, and that this description was appropriate at all management levels from group top management to top managers in companies. The division manager did not question the accuracy of the description, although he questioned the relevance of the reports he received from the system. At company level, however, there was some concern that different interpretations of the meaning of the principles could lead to a description that, when evaluated by information users distant from the system operators, would not be accurate. They saw a prob-

lem of semantics stemming from an apparent standardisation of principles that was not matched by an actual standardisation of interpretations of the principles. They did not see this as a problem for information use in the companies (where those described, the system operators, and the information users could all talk with each other), but rather as a problem at an aggregated level where the information users were not in direct contact with those producing the accounting data.

Apart from this question of standardisation, the opinions on the accuracy of the description provided by the principles differed. One accounting manager felt that the description did not correspond closely to the business activities as he understood them. Another thought that the description was accurate, but not very relevant to him.

The project manager thought that he had designed principles that according to his criteria provided an accurate description of the business activities, but as the examples demonstrate, the accuracy of the descriptions was not universally accepted.

Meeting needs

It seems to be generally agreed that the new principles of management accounting and control serve the top management of the group, providing them with overview and comparability between units. In addition to the opinions of those interviewed, a sign that the new principles were indeed meeting a top management need was provided by the fact that top management were beginning to trim the organisation referring to analyses based on the management accounting.

The principles used for budgeting were also seen as necessary by all parties, although the local actors were less approving of their quality than the project manager. In particular, those who had been involved in using them felt that they had been designed with too little attention to the amount of work that was required to use them.

Regarding the use of the new principles for management information below the group level, the views differed. The project manager and the CFO believed that the principles could also meet the needs at lower levels. The division manager shared the belief regarding his level in principle, although he had not seen proof in the form of reports that he would judge as timely and relevant. At the company level (where the project manager had not sought opinions on information needs either from information users or from system operators) the new principles were not viewed as

meeting the information needs very well. At that level, there were examples of alternative information systems as well as complementing systems that the local system operators and information users felt would have been unnecessary, had the central system been designed taking their information needs into account. The local actors saw the inappropriateness partly as a matter of inadequate principles of management accounting, partly as a matter of the design of the corporate management accounting information system. That information system was based on the principles of management accounting, but the reports had not been designed based on the local managers' views of their information needs.

6.2.4.2 Were the principles understood?

The project manager mainly interacted with the group CFO during the design of the principles, and then briefly presented the finished principles to information users and some local system operators (at the March meeting). He saw the development of understanding of the new principles (for themselves and for information users) as a natural task for accounting specialists throughout the organisation. The division CFOs had participated to some extent by being consulted in the development of the principles, and this together with the presentation they received of the final design helped the CFOs understand the principles. The level of understanding they gained, however, was not sufficient to enable them to serve as experts in their organisations, explaining the principles to their colleagues and subordinates.

Some company accountants also doubted that the information users at top management level understood the principles to a degree which would enable them to judge the accuracy of the information derived from the reports they received.

The unit managers and local accountants (information users and system operators) did not understand the principles in any detail after the March meeting, and when budgeting started at the end of the summer, those who had not yet started to implement the management accounting principles had not been exposed to the principles since March. The project manager thought that they ought to be able to understand the principles on the basis of the descriptions and instructions he had written, but they encountered problems that the instructions did not solve. Concerning a number of questions on a detailed level the instructions failed to provide guidance, and there were also some local idiosyncrasies of the business activities that he had

neither detected nor foreseen. They also found the instructions ambiguous in certain respects when they tried to interpret and implement them. In addition to the problem of understanding how to apply the principles, some of them experienced a problem of understanding on a deeper level: that of not understanding why the principles were designed the way they were.

Since top management required the principles to be applied, the local actors tried their best to understand them, thinking on their own and discussing with each other. Their poor initial understanding of the principles, and of the demands that implementing them would place on them, led to an unexpectedly large amount of hard, and in their view, frustrating work. When the central accounting function did not seem to understand their problems, some local accountants (system operators) took the initiative to suggest a gathering of all company accounting managers in the group to discuss the principles, and the application of them, in order to arrive at a more unified under-standing in time for the application of management accounting in the new year. This meeting provided them with an opportunity to discuss and under-stand, as well as a set of contacts with peers to continue a dialogue with.

6.2.4.3 Were the principles accepted?

At one level it can be said that all stakeholders in the group have accepted the new principles. Top management demanded that the principles should be applied, and they were applied; first in budgeting and then in the corpo-rate management accounting reporting system. This acceptance was to a large extent based on top management fiat. At another level, acceptance can be said to be less than complete. At local level, stakeholders (system operators, information users, and described) have resented how the princi-ples were developed and implemented. Not all potential information users are information users. Double sets of reports have been produced: one demanded by central accounting staff according to the new principles, and a local one based on principles that are judged as appropriate on the local level. There have also been ways of increasing local discretion over information (for example by feeding the central system only after local analysis had been performed).

The imposition of principles of management accounting and control that have been experienced as a corporate staff product designed to answer the needs of the group management, and with little attention paid to the views of those at local levels, has resulted in less than full acceptance of these new principles.

6.2.5 Patterns in consequences of the project managers' behaviour

In this section, I compare the cases in an attempt to identify and discuss patterns in the consequences identified above. Did the project managers manage to develop principles of management accounting and control which were regarded as appropriate, which were understood, and which were accepted?

6.2.5.1 Appropriate

Logical deduction as a way of determining user needs

Deduction was the main method of determining user needs employed by the project managers. The initial approaches chosen differ between G1 and H on the one hand and F and G2 on the other.

A) The project manager starts out with a strong view on what would be appropriate principles. (G1 and H).

> The project manager of *G1* did not try to understand how the actual users viewed the use of the costing information. He thus did not detect that he and they had different criteria for judging accuracy in the description. This led to a problem in understanding what was not viewed as appropriate by them, and in developing their understanding of the principles he had developed. (According to his 'designer view', the problem was that the users did not understand the principles. There was no other explanation (apart, possibly, from politics). The principles he had developed were accurate.)
>
> The users viewed the principles as someone else's invention, did not want to learn to understand them, and did not want to maintain the information system that was built on them.

> The project manager of *H* designed principles based on his own judgement of what would be appropriate information for managing and controlling the different parts of the organisation. The principles he designed were not considered appropriate on the local level. Those described were not entirely pleased with the accuracy of the descriptions, preferring a higher level of detail and a good fit between principles and local idiosyncrasies above comparability across units. They also doubted that those at the top who used the information understood the principles well enough to judge the quality of the information.

B) The project manager starts out having given little thought to how the management accounting information would be used. (G2 and F)

> The project manager in *F* encountered unexpected problems at implementation because of uses of the information that he had not foreseen. Information users in after sales reacted against the new principles as inaccurate, and explanations as well as some modifications of the principles were required to convince those information users to accept the principles as reasonably accurate.

> The project manager of *G2* had been working on the project for some time with the implicit assumption that appropriate was the same as an accurate description of cost relationships in business activities. It was members of her reference group (high managers of information users) who then raised the topic of information needs. She discussed this with the reference group, and they arrived at a list of users and uses. For the uses they identified, their picture of information needs seems to have been fairly accurate, but there were also examples of uses they had not identified, uses that some users regarded as important. Those users were already left out of the project (partly because the project managers believed they were not positive to the project), and when the project did not solve their problems, they did not become more enthusiastic.

Both approaches (A and B) lead the project managers to invest little effort in exploring the information users' situation, and they lead to clashes between the project manager's view and the views of information users. There seems to be a fundamental difference in view between the project managers (accountants who view themselves more as system owners than as information users) and the information users. The project managers seem to believe that it is possible to design an objectively accurate description, while the information users look for subjectively appropriate descriptions. Since the project managers did not emphasise discussing information use with a range of information users, the distinction between these two views has not been made explicit and a subject of discussion during the projects.

Such a desire among information users for subjectively appropriate descriptions was also suggested by Johansson and Östman in connection with representational criteria,[230] and articulated in a number of the cases

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[230] See p. 85 above.

in chapter 4.[231] There this desire stands in contrast to a desire for comparability across organisational units. The proponents of comparability maintain that descriptions which are designed for comparability across units can still be useful at the local level. This bears a resemblance to the notion of an objectively accurate description.

Information users were more likely to view the principles as appropriate the more the project manager had encountered their perspective. The project manager in H communicated more with the top level of the organisation during design than with the local information users. The resulting principles were experienced as more relevant for the top than for local use. The project managers in F communicated with information users in the production unit, not with information users outside it, and the reception of the principles was more favourable within the production unit than outside it, etc. In the activity accounting project in section 4.1.8, the project team members interacted more with information users in manufacturing than with information users outside that function, and the reception of the principles varied accordingly.[232] This could be expected given a view of information users as a heterogeneous group, and information needs as subjective rather than objective. However, the project managers were typically surprised to learn that there were users who did not view the principles as appropriate.

A general pattern is that the project managers seem to have generalised their perception of what would constitute appropriate principles from a limited group of stakeholders (and not even necessarily information users) when in fact there were information users in many places, and differences between as well as within groups of information users could be large.[233] This seems to call for greater attention to information user *perspectives*, rather than to *the* information user *perspective*.

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[231] In 'Resistance to accounting change' (4.1.5) as well as in the Road department project (4.2.2) and the Social welfare department project (4.2.3) the local information users express the same desire for subjectively appropriate information. That desire was accepted in the Uppsala cases (see section 4.2.4.2).

[232] On this point, 'Resistance to accounting change' (4.1.5) seems to be an exception. The project manager encountered, but disregarded, the views of local information users.

[233] This seems to be true even of the project manager in 'Resistance to accounting change' (4.1.5). Although he heard the objections from the local information users, he maintained that what he viewed as accurate would provide appropriate information for all users. He viewed resistance as irrational.

In the cases in chapter 5 as well as in several cases in chapter 4[234], some information users objected to the principles the project manager designed, after the project manager felt the principles were finished. To some extent, the principles could be adjusted in accordance with the criticism. In other respects, to do so would have required more fundamental changes of the principles, or would have been incompatible with the perspective underlying the principles designed.

If the design cannot meet the needs of all the information users, an explicit choice of whose needs to meet seems better than an implicit one. The degree to which this raises the demands on the project manager depends in part on the patterns of communication he develops with stakeholders. In the following section, I turn to the node/link pattern of communication the project managers developed.

Consequences of the node/link pattern of communication between project manager and stakeholders

In the theory chapter (see p. 94), it was suggested that the pattern of communication the project manager develops with stakeholders can help further the appropriateness of the resulting system by:

- bringing more relevant information to the group developing the information system, by providing better knowledge of the organisation and of the user needs

and by:

- enhancing communication between stakeholders concerning power, goals, and interests.

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[234] 4.1.1 Management accounting change in a bank, 4.1.2 A financial information system at Golden Triangle, 4.1.3 Bringing cost-consciousness to the mutual insurance company, 4.1.5 Resistance to accounting change, 4.1.8 An activity accounting project in the electronics industry

Comparing these points with my cases, it can be noted that all project managers in chapter 5 have been intent on developing their understanding of the organisation. Their attention to user needs has been less pronounced. The last point, that of enhancing communication between stakeholders, seems not to have been a goal. Schematically depicted, the project managers' node/ link patterns of communication have been closer to that depicted in Figure 6.10 than that in Figure 6.11. The project managers have been the centre of a star, communi-

Figure 6.10 The project manager as the centre of a star

cating with one stakeholder or one group of stakeholders at a time, rather than trying to establish direct contact between different stakeholders. In this communication pattern displayed by the project managers, the discus-

sions concerning power, goals, and interests have been virtually absent. However, in the product group pilot project in G1, for example, such a discussion arose between stakeholders in that limited group (apparently without the project manager being particularly aware of it). That discussion was animated but rewarding according to people who partook in it. It resulted in principles that were a compromise between the conflicting goals of stakeholders, a compromise that was acceptable to the stakeholders involved in the discussion.

Figure 6.11 The project manager as a node in a network

Although it may seem difficult to discuss such differences in views, not discussing them is but a temporary way of avoiding them. In all projects, unanticipated complications arose at implementation, stemming from differences in goals and interests or from power shifts between stakeholders – issues which had not been explicitly discussed or considered in the projects.

Experiencing differences in views first hand also seemed to be of considerable value. The project managers in G2 and in F claimed that the contact nets they established during the projects was an important

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outcome for them, and helped create a dialogue between them and individuals in the organisation, a dialogue that continued after the communication within the project had ended. The product manager participating in G1 noted that the understanding of how others viewed his actions (an understanding that he developed by meeting and talking to different stakeholders during the interviews) was valuable to him and enabled him to understand and use the new principles of management accounting and control more actively and carefully.

Thus, establishing a new set of channels of communication seems to have positive consequences. The way the project managers managed their projects, the new channels of communication formed stars with the project manager as the centre. The positive consequences were therefore concentrated to the project manager, and the project manager, serving as a filter, also determined what was communicated between the other stakeholders.

The schematic picture of project manager communication given in Figure 6.10 is a simplification of the actual patterns in the projects. The project managers utilised some cross-stakeholder fora in all projects, but only to a limited degree. These fora were also characterised by the fact that they consisted of individuals who had already established communication with each other, such as management teams or groups of top level accounting managers. In addition, the fora were limited in scope. In none of the cases did the project manager establish a forum consisting of stakeholders representing all groups of Figure 6.12. In the top management groups, high managers of the stakeholders might meet, but this did not allow for
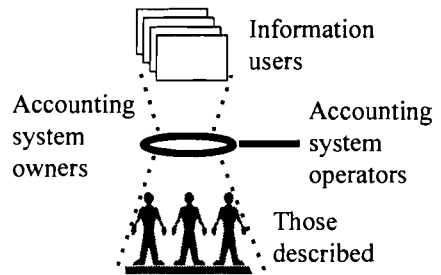
Figure 6.12 Roles in relation to a system of management accounting and control

direct contact between, for example, those described and all groups of users of information about those described. In F and G1, communication stayed within the limits of the unit described, not including the information users outside the unit. In G2 the reference group included top managers of information users, system operators and system owners, but not managers of all groups described, and there was no lower level cross

stakeholder forum. In H, the top management group, which could be said to represent top managers of all stakeholders, discussed questions referred to them, as did the accounting system owner/accounting system operator forum of CFOs, but apart from these possible exceptions, the project manager in H came very close to the pattern in Figure 6.10.

These examples indicate that a network pattern seems to have desirable consequences, but that the project managers did not actively strive to establish such opportunities for contacts between stakeholders. As noted above, communication between stakeholders could aid in the development of knowledge of the organisation, knowledge of user needs, and serve to open up for discussion the otherwise implicit issues of power, goals, and interests.

The star-shaped communication patterns which the project managers developed served as instruments for what the project managers sought, but prevented the development of discussions and effects that the project manager had not foreseen or did not seek. It was thus of little extra benefit to the process of furthering the broader goal of making the members of the organisation aware of how their actions affected others in the organisation. The project managers developed considerable knowledge of the business activities they studied, receiving input from stakeholders they contacted. Those described and the intended information users, who did not have access to the contact nets, did not develop their knowledge of relationships between business activities.

Comparisons with cases in chapter 4

In chapter 4 the establishment of cross-functional communication is explicitly noted as valuable in two cases. In neither case is the project manager instrumental in bringing it about. In 'Management accounting change in a bank' (4.1.1), a fruitful dialogue between financial control staff and the information users slowly developed when financial control staff realised that the information system developed in the original project did not serve its purpose. In 'An activity accounting project in the electronics industry' (4.1.8) the existence of the activity accounting system eventually helped create constructive cross-functional communication, although the project had been conducted in a manner that focused on the unit described (manufacturing) while largely excluding two important information user groups (R&D and marketing) from the dialogue.

Two examples, however, show that cross-functional communication can exist without being constructive. In 'An attempt to change an embedded cost accounting system' (4.1.4), a large cross-functional forum was established and met every two weeks for a year, but with no one succeeding to focus the effort on producing a result.[235] In 'Resistance to accounting change' (4.1.5), the project manager came into contact with information users who held a view of what constituted appropriate information that differed from his. That exchange of viewpoints turned into an argument that failed to result in either a compromise or a shared view.

Thus, there is evidence in chapter 4 that good cross-functional communication can be a valuable goal to strive for, but that it can be difficult to achieve. Few project managers described in chapter 4 have addressed the question of developing appropriate systems by establishing netlike patterns of communication. The star-shaped pattern of communication I note in the cases in chapter 5 also appears in cases in chapter 4, although the stars may have fewer nodes.[236] These low-communication projects experience problems with users not finding the systems which are developed appropriate. It seems probable, however, that those problems can be attributed to the lack of attention the project managers paid to finding out what the information users viewed as appropriate information, rather than to the manner of communication. The researcher in cases 4.2.2 and 4.2.3,[237] although placing a larger emphasis on the information needs and goals of the local information users than the project managers in these projects and in chapter 5, also reports a pattern of contact that appears to be similar to a star. He and his accounting colleague had the main responsibility for communicating the results of the discussions with one node to the other nodes. However, to a large extent he met with *groups* of stakeholders,[238] and attempted to develop a discussion in each group. This appears to have led to the creation of principles that were perceived as

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[235] The project manager who was then appointed is not reported to have attempted to establish any cross-functional communication.

[236] The project managers in 4.1.1, 4.1.3, 4.1.4, and 4.2.1.3 appear to have had rather limited contact with others.

[237] 'Local development at the road department', and 'Local development at the social welfare department'

[238] Examples of such groups are: the employees of a small work unit, the local politicians, the general manager and his department managers, a department manager and his section managers, etc.

appropriate by the information users, at least in the groups where he managed to develop a discussion. It may be noted that a majority of the information users were using information regarding their own unit, unlike the horizontal flow of information which was an important aspect of cases F, G, H, and 4.1.8.

The project manager in 'Successful development and implementation of a company-wide information system' (4.1.7) seems to have been the one most intent on establishing fora for broad communication between stakeholders, although he too seems to have used the project team as an information hub to a considerable extent. In that case (4.1.7) there is no report of users who found the resulting systems inappropriate.

Concluding remarks

Most project managers did not *study* user needs to any great extent, and in their roles of information hub largely prevented such a discussion from developing. The topic of user needs, however, was considered to some extent sooner or later by the project managers, as noted above, at least as a subject for private reflection. The issues of power, goals, and interests were avoided by most project managers and were not allowed to explicitly influence the development of the principles. Nor did a discussion of these issues develop spontaneously, given the 'star' pattern of communication where the project manager formed the centre.

The star-shaped communication pattern exhibited by the project managers thus places a great responsibility on them. Based on the indications noted above, it seems probable that the project managers would be aided in developing principles that are regarded as appropriate by a larger proportion of the stakeholders, if they tried to develop a more net-like pattern of communication.[239] The channels of contact developed *between stakeholders* in such a pattern would also in themselves serve the overall goal of making the members more aware of how their actions influence others and vice versa, and serve as easy access channels through which to address problems they experience as caused by such interdependencies.[240]

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[239] I am not saying that it will necessarily be easy to develop such communication. It may prove difficult to get people in the organisation to participate in such cross-functional fora if for example the star-shaped pattern is the typical way of conducting projects in the organisation, or if stakeholders fail to see the benefit of getting involved in the discussions.

[240] This is not to say that the projects are the only arenas for contact between stakeholders. However, unless the project manager actively attempts to develop new (or

6.2.5.2 Understood

A general trait among the project managers is that they overrated how well the stakeholders understood the principles, and underrated the effort still needed by the information users to achieve understanding at the time of implementation. In this section, I discuss stakeholders' understanding of the principles, and consequences of the project managers' handling of the issue of understanding.

Active and passive understanding of the principles

The project managers in chapter 5 all designed principles of management accounting and control that they saw as good descriptions of the business activities. They based their design on descriptions of the business activities that they gathered mainly from people working in the units they described. The principles they developed were viewed as natural and uncomplicated constructions by the project managers, and they put little effort into explaining them to the prospective information users and other stakeholders prior to implementation. A number of observations indicate that for those who had not actively participated in the design process, understanding was a more complicated issue than the project managers believed. Here are some examples:

- To the project manager in F it seemed that the managers in production understood the principles, but it turned out that many did not when it came to using them.
- The project manager in G1 noted that the managers in production believed that they understood the principles, but their understanding was not tested, and they did not actively become information users.
- Information users in G1 did not respond when they first received the new principles. The project manager took this as a sign that they understood and accepted the principles. When the principles were implemented, the information users reacted against them. (The project manager took this as an indication that the information users did not understand the new principles.)

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access existing) fora, it is unlikely that discussions which may take place, actually contribute to the development of principles that are viewed as appropriate by those concerned.

- The project manager in H believed that the users understood because they did not say otherwise. When they were to apply the principles it turned out that they did not understand them as well as they wanted to.
- The project manager in G2 noticed that a confirmation from someone that a description was correct only meant that it seemed correct to them according to *their* interpretation of the description. *Her* interpretation of it, which would determine the implementation of the principles, was not verified by the OK. To achieve this, she needed to check using concrete calculated examples of products that were known to the person she consulted.

The difference between reading or listening and understanding what you read or hear (passive understanding), and being able to answer questions or otherwise demonstrate the understanding (active understanding) is probably familiar to everyone. Recognising that a logical proof seems correct needs less of an understanding than being able to produce the proof. This is no surprise to those who take time to think about it, but the project managers did not problematise the question of understanding. In all the projects there are examples of when the project managers believed that their counterparts understood the principles better than they actually did.[241] Most of the project managers did not attempt to test the degree of actual understanding. It thus seems that the project managers did not distinguish between active and passive understanding of the principles, implicitly assuming that there is no difference between the two.

In the process of applying and using the principles, it became evident that many information users had an inadequate understanding of the principles. This then led to (sometimes unwarranted) criticism of the principles, to rushed attempts from the project manager or system operators to explain the principles, and to attempts on the part of system operators and information users to make sense of the principles on their own. It seems that the information users reacted when they started to understand the *consequences* that using the new principles would have for them.

When the information users realised there was more to the new principles than they first realised (different views of appropriateness, different views on management or control ...) they reacted by criticising, not by

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[241] The difference between active and passive understanding in the projects is discussed in more detail in section 6.3.

requesting education. The project managers' lack of attention to identifying underlying differences in views at an early stage in the projects, seems to result in an initial lack of consensus between them and the information users (then not explicit) and this lack of consensus remains. When it becomes apparent (typically during the implementation stage), the positions are locked; the 'designers' have built their views into the principles, and now have the whole construction to defend. The 'users' fight the construction. There is too much at stake for the designers to be willing to discuss the underlying views at that point. They try to defend the construction by explaining how the principles give what they see as an accurate representation of the relationships the principles describe (and often in what ways this new description provides a more faithful description than the old principles did). The issue of what 'understanding the principles' can mean is elaborated on in the next section.

Levels of understanding

The different reactions from information users to the principles at different times in the process seem to relate to different levels of under-standing. As a parallel to the technical level, the semantic level, and the effectiveness level (the three levels of communication problems, from Weaver, see p. 87 above) I see three levels of understanding the principles of management accounting and control as depicted in Figure 6.13.[242] The lowest level is understanding the description of the business activities that the principles provide. This is the level focused on by the project managers, and one that by itself does not seem to lead to much controversy. At this level, the principles provide *a* description of the business activities, and the different stake-
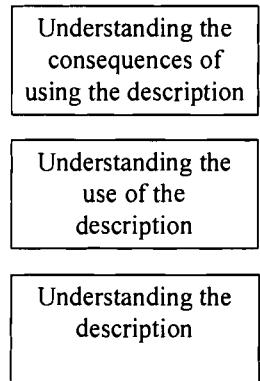
Figure 6.13 Three levels of understanding

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242 In a literal sense it could be said that understanding specifically relates to Weaver's semantic level. However, the parallel I refer to is conceptual rather than literal. Weaver's three levels successively place a transmitted signal in a larger context. Similarly, the description provided by the principles, the use of the description, and the effects of using it, can be viewed as three levels where the principles of management accounting and control are successively placed in a larger context.

holders have normally initially been able to recognise the principles as a description of the business activities that to some degree corresponds to their pictures of those business activities.

When it comes to producing a description according to the principles, or to understanding how the model corresponds to the reality in detail in a specific instance, information users or system operators come to realise that they do not understand the principles to that degree. The need or wish to understand the principles to this degree normally does not arise until they try to use the principles. (In the projects studied this has typically taken place during the implementation phase.)

I see the second level of understanding as understanding the use of the description the principles provide. Information needs of information users belong on this level. As noted in section 6.1.5.1 above, the project managers typically addressed the question of use and information needs by implicit or explicit deduction rather than by discussion with the potential information users. Mismatches between the project managers' and the information users' understanding at this level have occurred in all cases. This either took the form of the project manager thinking of a specific user but not capturing his perspective (as with the product managers in G1 and local managers in H) or failing to identify a user altogether (as with after sales in F and in G1).

The third level, that of the specific consequences for the information user of using the description provided by a specific set of principles, stirs up emotions. This level includes topics such as adjusting one's behaviour based on information derived from the description, or losing or gaining apparent profitability. When stakeholders start understanding the change of principles at this level (with or without a solid base for their under-standing), they react. Some react with curiosity, some with resistance. The change of management accounting and control principles is intended to have consequences. Yet the project managers have typically not made it an obvious part of the projects to discuss the consequences of design choices with information users or those described.

For stakeholders to whom the application of the new principles has meant little change, the absence of a discussion during design does not appear to have been a problem. Where the change has been noticeable, a debate over the appropriateness of the principles has arisen after the principles have been implemented. These debates have had the character of criticism and defence matches. The criticism has to some degree been

expressed directly to the project manager (if still in place) and to system operators, but it has also taken the form of information users complaining to each other or to other people within or outside the organisation. The tone in these discussions has not been particularly constructive. Thus the project managers' avoidance of the discussion of consequences during design has not stopped controversies from arising over the design chosen by the project manager, and when such controversies have appeared, they have been in a form that has made it difficult to turn them into benefits for the overall goal: that of supporting the profitable operation of the organisation. Instead of discussing how best to serve the users' information needs or how best to utilise the information that can be derived from the new principles, the discussions have been in the form of criticism and defence of the principles.

Comparisons with cases in chapter 4

As in the cases in chapter 5, the project manager in 'Management accounting change and information systems development' had not focused on developing user understanding, and eventually problems with understanding the descriptions, and understanding the use of the descriptions, surfaced.[243] There was, however, no mention of problems related to understanding the consequences of using the descriptions. In 'An activity accounting project in the electronics industry' (4.1.8), the project manager explicitly prioritised keeping the deadline for delivery ahead of developing user understanding. Those responsible for the resulting system then had to invest considerable effort in unplanned assistance to users, explaining the description and the use of it. Thus, like the cases in chapter 5, these two cases are examples of low project manager focus on developing user understanding of the principles and of the use of the principles prior to implementation, leading to a prolonged phase during which the information users (and in some cases system operators) are unable to use the newly developed principles to advantage due to problems with understanding them.

Such problems of understanding[244] are not presented as important issues in cases 4.1.2, 4.1.3, 4.1.4, or 4.1.5. However, there, as well as in 4.1.8, the consequences of using the new principles become a controversial issue

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[243] See section 4.1.1.2, p. 120 above.
[244] Understanding the description and understanding the use of it.

once 'those described' and information users begin to develop their pictures of the consequences. In none of these cases is there any indication that the project manager has tried to handle the issue prior to or during design. Instead, they all face the same situation as the project managers in chapter 5 of having developed a new set of principles and then trying to defend them when the criticism surfaces.

In a number of other cases in chapter four, the project manager actually focused heavily on developing user understanding along with the development of the principles,[245] or at least in time for implementation.[246] This strategy seems to have been successful in that neither the practical understanding of the principles and the use of the principles, nor the question of controversies regarding the consequences of using the descriptions, appear to have posed problems during or after implementation.

Concluding remarks

The issue of information user understanding – of the principles, of the use of he principles, and of the consequences of using the principles – appears important in the cases I have studied directly, as well as in a number of the cases published by others which I presented in chapter 4. In the projects where the project managers have actively sought to address the issues of understanding from an early stage, there seem to be far fewer problems and surprises to face at and after implementation.[247] The project managers who have paid little attention to how well other stakeholders understand the principles they develop seem to have underestimated the effects of this choice. The project managers have underestimated the effort someone who has not participated in developing the principles needs to invest in order to understand them well enough to use them. The problems associated with not having developed and discussed different stakeholders' understanding of the consequences of using the principles, prior

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[245] Successful development and implementation of a company-wide information system (4.1.7), Local development at the road department (4.2.2), and Local development at the social welfare department (4.2.3).

[246] Successful development and implementation of an accounts payable system in a redesigned accounts payable function (4.1.6)

[247] This analysis of the issue of understanding has been an exploration of implications of the more general statements that user understanding is important for system success, that I noted in section 3.3, citing for example Ives and Olson (1984) and Johansson and Östman (1995).

to or during the design of the principles, also seem to have been under-rated by the project managers.

The issue of different levels of understanding is also strongly linked to the question of getting the principles accepted by the stakeholders, the topic for the next section.

6.2.5.3 Accepted

In this section, I look for and discuss patterns in how the project managers' attempts to get the principles of management accounting and control accepted, led to acceptance or non-acceptance by different stakeholders.

The project managers in chapter 5 all gained formal acceptance of the principles they designed, but the use of the principles was more limited than the potential they had aimed to realise. A general trait of the project managers was that they sought acceptance based on what they saw as descriptive accuracy, rather than on the basis of appropriateness as perceived by the information users. This approach was not very successful when information users did not share the view of the principles as appropriate, and to some extent did not even agree that the descriptions provided by the principles were accurate.

In the discussion below, I focus on the project managers' use of local participants in the projects, and the consequences of communicating with and via them to achieve acceptance.

Type of user participation employed and consequences for project success

The project managers had different views of the usefulness of employing local participation to achieve acceptance of the principles they developed. Hirschheim noted that participative development led to more functional systems, and improved communication between managers, users, and information systems specialists, but that this was achieved at the cost of a longer design phase. However, this time spent could be viewed as an investment; participatively developed systems were quicker and easier to implement than conventionally developed ones. (See p. 95 above.) How does this relate to empirical evidence in this study?

The cases indicate that a more participative development approach facilitates implementation (such as that in F and in G1), and that a non-participative approach makes implementation difficult (as in H). This is in line with the results obtained by Hirschheim. It is not obvious that a par-

ticipative approach to development prolongs the development phase,[248] but the project managers believe this to be true. What differs sharply between project managers is their attitude to the trade-off between speed and local participation. Some view some degree of participation as vital, such as the project manager in F and the first project manager in G. They both employed at least representative participation. In contrast, the project manager in H and the sub-project manager in F both prioritised speed ahead of participation.[249] (The sub-project manager in F regretted this choice, but the project manager in H did not.)

The table below contains extracts from the published cases summarised in section 4.1, p. 118 ff. above.[250] The left column contains the title of the section describing the case, and the right contains indications of project manager attitude towards participative development, and consequences.

Case	Participative development or not
Management accounting change in a bank (4.1.1)	Accountants took the lead and controlled the development, requesting little input. User input started in earnest when they began using the reports, not when they received the specifications. The accountants responded to this input, and over time the projects led to increased contact between the financial control department and people in the line organisation

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[248] There seems to be a consensus opinion that participative development takes time, at least in the investigation and development phases. Yet, when comparing the cases G1 and G2, it becomes obvious that the relationship may not always hold. It is possible that it holds *ceteris paribus*, but the pace in G1, where the project manager used representative participation, was much higher than in G2, where the project manager did not.

However, the two project managers differed in how they perceived the trade-off between time and quality, and in what they saw as criteria by which to judge quality. These differences seem to have had a much greater influence on the project pace than the presence or absence of local participation in the projects.

[249] The second project manager in G also preferred speed to local participation, but it is not obvious that local participation would have slowed the project down.

[250] Two cases are excluded from the table. Although 4.1.2 gives the impression that the project manager was negative to local participation, there is no detail on how the development of the principles was carried out. In 4.1.4, the development was carried out with no participation of stakeholders outside the controller staff, but there is no information regarding implementation.

Bringing cost-consciousness to the mutual insurance company (4.1.3)	Accountants and information systems specialists were given the lead and controlled the development, requesting little input from line managers and end users. When the project manager did not receive input from the line managers he did not attempt to strengthen the communication. The attempted change was neither anchored firmly at the top nor at the bottom of the hierarchy. The project was unsuccessful.
Resistance to accounting change (4.1.5)	Central staff accountants attempted to force their view of management accounting and control on the line managers. Accountants led and performed the project, with the assistance of information systems specialists. Hierarchical power was used as the basis for implementing the new principles. There was considerable local resistance based on distrust of central staff initiatives and on a preference for local support above cross-unit comparability. The project died when the initiators disappeared from the scene.
Successful development and implementation of an accounts payable system in a redesigned accounts payable function. (4.1.6)	The change process was top down. The project team was large, representing organisational units and functional knowledge. The project team acted self-sufficiently, interacting little with future users. There was a focus on continuity and learning in the project team to ensure successful implementation. Only users positive to the new principles were chosen to work in the new organisational unit. The project was successful.
A successful development and implementation of a company wide information system (4.1.7)	The project manager conducted the project with a user focus, involving users, communicating with them throughout the process and showing them that their input was valued and used. The new information system was successfully implemented and provided the intended competitive benefits.
An activity accounting project in the electronics industry (4.1.8)	Involvement and education of users had low priority in the project team, and the new system was not widely appreciated when it was implemented. The functional groups represented in the project team contributed more to the final product than those not represented, and were more positive towards the final product. When the new system had been in operation for almost a year, it had gained supporters in all functional groups, but still the degree of appreciation varied with the degree of participation in the design phase.

In this selection, projects where the project manager has opted for a non-participative development approach have been unsuccessful: the new prin-

ciples have never been implemented, have not been accepted, or have not survived for long. An apparent exception is the redesigned accounts payable function case. In that project there is little evidence of system user participation. Almost all managers concerned participated, however, and as the new functional unit was staffed only with employees positive to the new design, there is reason to be cautious against interpreting this case as evidence that user participation is unnecessary.

In the cases where the information system survived, the interaction between information users and project team seems to have been an important success factor. In the first and the last case in the table, this interaction appeared late in the process, well after design, and then the process of implementation until a point of substantial and appreciated use was reached was indeed a long one. It was measured in years.

In cases F to H, the new principles have been implemented or were about to be implemented. In that regard, they could all be viewed as successful. However, actual use of information derived from the principles did not spread quickly in any of the cases. This observation will be further discussed below, in section 6.2.5.3.

In the road department and the social welfare department cases (4.2.2 and 4.2.3), the projects were run with the explicit intention of prioritising participation ahead of speed. (The planned development time was then also considerably longer than in the other cases in chapter 4 and 5.) In some units, care was taken to discuss and anchor each step of the design with as broad as possible a range of 'those described' and information users, before deciding on it and moving on to the next step. In other units, the development was actually carried out in more of a top down fashion. The acceptance of the resulting system was large where the project team had held extensive discussions with the local stakeholders and shown an interest in their work and their perception of information needs. In the divisions where the development had been more top down, the reception of the resulting system was generally less positive.

I interpret this as general support for the notion that showing attention to stakeholders' perspectives in action, not merely in words, promotes acceptance. I have no indication contradicting this statement in any of the cases. The stakeholders who participated with some degree of control in the development of principles accepted those principles when they were implemented. The opposite – that stakeholders who have not participated with some degree of control did not accept the principles when they were

implemented – is, however, not true. Although there are many examples in the cases of stakeholders not accepting principles they did not help develop, there are also counterexamples. In 'An activity accounting project in the electronics industry' (4.1.8), there were product developers and marketing personnel who came to accept and actively use the new costing principles. In the social welfare department case (4.2.3), a prime example of positive utilisation of the new accounting appeared in one of the divisions where the development had been top down. Thus, participation may promote acceptance, but is not a prerequisite for acceptance.

To summarise this section, it can be noted that the empirical observations support the notion that user participation in the development phase may increase the time needed for that phase, but that successful implementation (leading to actual use of the information, not just production of data) seems difficult where user participation has been scarce. In the Uppsala cases 4.2.2 and 4.2.3 and in 'Successful development and implementation of a company-wide information system' (4.1.7), the project manager employed what comes close to a consensus approach to user participation. In the other cases with some degree of user participation [F, G1, and 'An activity accounting project in the electronics industry' (4.1.8)], that participation could at the most be classified as representative. The reported involvement of the average user from implementation onwards in the 'consensus' cases seems considerably greater than in the 'representative' ones, and in G and 4.1.8, the adoption of the new system differs substantially between units that have had a representative in the development and those which have not. Adoption also differs between representatives and their colleagues.

Obviously, design and implementation of management accounting and control systems is not uncomplicated: there are many examples of unsuccessful attempts. Enlisting the help, support, and interest of users (at least some in each organisational group) may therefore be important. Local representation has effects mainly locally. It thus seems advisable to identify and enlist participation from all units concerned if the benefits of user participation are sought, and sooner rather than later.

Effects of local participation: local may be *too* local

Management accounting and control projects normally seem to be run by members of the central accounting staff function. This is the case in the projects I have studied as well as in most projects in chapter 4. Projects run by staff may have problems achieving acceptance at operative levels in the line organisation. In a number of cases, the project managers have employed limited local participation as a means for achieving acceptance.[251] The project manager has given the role of local project partner to someone and communicated extensively with him during some part of the project (typically during information gathering, and to some extent during design). To some extent, this local participation has led to acceptance of the principles produced, but the acceptance has not been homogeneous across stakeholders affected by the new principles. In this section, I discuss the acceptance this local participation has led to.

From central staff to local actors

One step is conferring a sense of ownership of the principles developed from central staff to local actors. This seems to have worked rather well. The sub-project leader in F and his colleagues, the local chief accountant in production in G1, and the local product manager in G1, all developed a sense of ownership of the principles developed in the projects they participated in, even if the control they perceived they had over the actual design was limited (as in G1). They were also viewed by stakeholders at the local level as the ones to turn to with questions and complaints, rather than turning to the project manager directly, and the local participants took the role of system owner when responding.[252]

For the sub-project manager in F and the local chief accountant in G1, the system owner role may seem natural, as indeed they were responsible for running the resulting systems, but even so they could have sided with

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[251] The project manager in F used local sub-project leaders from local accounting departments. The project manager in G1 used the local chief accountant in production for the production part of the project, and a product manager for the product group pilot project. The small task force in 4.1.8 included a materials engineering manager as a representative for manufacturing.

[252] There is little detailed information on this point in the case in 4.1.8, but it appears that the manufacturing representative was a committed member of the project team, was viewed as the manufacturing representative by the stakeholders in manufacturing, and felt ownership of the principles he took an active part in developing.

those who complained if they had viewed the new principles as a completely alien construction (as did local actors in H, in 4.1.1 'Management accounting change in a bank', 4.1.2 'A financial information system at Golden Triangle', 4.1.3 'Bringing cost-consciousness to the mutual insurance company', and in 4.1.5 'Resistance to accounting change', who had not participated in the development of the principles). The chief accountant in production in G1 even defended the system despite his own criticism of it.

These examples thus indicate that enlisting local participation that gives the participant some sense of meaningful contribution, serves to confer a sense of ownership of the result on the local participant, even if he does not feel to have been in strong control of the development process.

Within the local unit

The further spread of acceptance – the spread to others in the same unit as the local participant – has been less successful. The managers in production in G1 accepted the principles as accurate, but did not actively use the information. The managers in production in F eventually used the principles to the degree required by the local accounting department, but, like those in G1, did not actively use the information to improve their business operations. The product managers in the same product group as the participating product manager in G1 accepted the principles to differing degrees. Some used the information more actively than others, but none to the same degree as the participating product manager.

In the case summarised in 'An activity accounting project in the electronics industry' (4.1.8), the researchers report that the principles were accepted and to some extent used actively in the manufacturing function. It is not apparent that this would be a counterexample to the pattern I see in my own cases, as the researchers provide no detailed information on differences in acceptance within the manufacturing function.

Acceptance of the new principles thus seems to be furthered within the unit that has a participant in the design process. However, judging from cases F and G, the effect is not very strong. The principles are rather passively accepted by the colleagues of the participant; their *involvement*[253] remains rather low. Using a representative as a means of handling the per-

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[253] Involvement in the psychological sense, see the section Participation and involvement, p. 72 above.

spectives of the individuals in the group is an indirect form, and far from a complete solution to the problem of getting the principles accepted.

To 'sister' units – other local units within the same function

In 'An activity accounting project in the electronics industry' (4.1.8), there was considerable difference in acceptance and adoption of the new principles between functional units according to degree of representation in design. Individuals in units that had participants in the design group started using the new principles earlier and to a greater degree than individuals in units that had had less representation or no representation at all in designing the new principles.

In G1 and G2, the product groups which had not had representatives in the process of developing the new principles showed considerably less interest in using information based on the new principles. This, as well as the pattern in 'An activity accounting project in the electronics industry', could be a consequence of representation leading to a system that is potentially more appropriate for the functions represented in the development phase. It could be noted that in the 'electronics industry' case, there were people even in functions that had not been represented during design, who found the new system useful. Thus, it was not devoid of potential appropriateness for the non-represented, but the appropriateness may have been lower than in the areas that had been represented, and this also seemed to be the case in G.

The pattern of lower acceptance and adoption in neighbouring units could thus be a consequence of lack of appropriateness. The pattern could also be a result of diffusion of knowledge and enthusiasm from the representatives to their colleagues – diffusion that is likely to be lower the greater the distance between representative and colleague. Probably the two interact: representation leads to higher appropriateness for the people represented, or at least to a potential appropriateness that is easy for them to appreciate. The customised appropriateness makes it easier for the representative to get his colleagues to appreciate the new system, and his status as colleague facilitates the dialogue between him and the colleagues compared to establishing and maintaining a dialogue between central accounting staff and information users. Having had a colleague as representative also increases the chance of avoiding a not-invented-here reaction.

In the 'electronics industry' case (4.1.8), proximity in the organisation and in functional specialisation may both be operating. The function,

manufacturing, which the participant represents, is a unit with one manager. In G, the separation between inter- and intra-function groups is more distinct. In that organisation, there were several product groups, each with their manager. The participating product manager belonged to one of these groups. Judging from the example of G, there is little evidence that the participation of a functional colleague from another organisational unit serves to facilitate the acceptance of the principles developed. The potential information users in the product groups that did not have representatives interacting with the project manager in the design effort did not accept the new principles just because a functional colleague from one product group participated.

I now turn to discussing the inter-function aspect in more detail.

Between functions

In G1 and F, as well as in the 'electronics industry' case (4.1.8) there were sharp differences between how the principles were received in the units where they were developed and in units that had not participated in the development process. The ABC principles developed for *production* were met by rather strong criticism by information users outside production in all three cases. In F and the 'electronics industry' case there were no participants outside production, but in G1 the product manager had participated in the *product group* pilot project when the production ABC principles were implemented. However, participating in that project (with the same project manager) and being positive to it did not make him accept the *production* costing principles he had not helped develop. He understood them quite well as a result of his participation in a similar project and was thus able to see how he could use them, but he did not become a supporter of the production costing principles. Although not positive to the new principles, his unit was less resistant to them than the neighbouring product groups.

The local participants in the *production* projects in G1, F, and in the 'electronics industry' case (4.1.8) belonged in turn to the production function, and had little command over the minds of information users from other functions. For the product managers, the after sales representatives, or the product designers, who would be information users, it made little difference that the projects had been conducted with representation from production, when the information users themselves had not participated in those projects. Judging from these cases, the effect which participation has on acceptance *across functions* thus seems to be quite low.

Concluding discussion of effects of local participation

There seems to be evidence that the project managers who enlist the participation of local representatives benefit from this in getting the principles of management accounting and control they develop accepted and adopted. However, the effects appear to be rather more local than the project managers hoped for. The participants themselves become proponents of the principles they have helped develop, but not necessarily of portions of the principles that they have not helped develop. The influence their participation and understanding and acceptance of the principles has on others in turn seems to be strongest in their immediate neighbourhood, defined by organisation and function. However, they do not convert even all close colleagues to 'believers'. Outside their own unit, their influence is considerably weaker, on functional colleagues as well as on individuals in other functions.

Following Hirschheim, these positive effects of participation could be expected. As noted above (p. 96), he found that users who were actually participating in the development of information systems came to understand and become positive towards these systems and the use of them. He also noted that users who had not participated had not advanced on the learning curve regarding use and acceptance of the system, but that there was an indirect, positive effect: the participating users could help their colleagues learn and accept the new system. My analysis supports his findings, but also gives detail to the 'indirect effect' he refers to.

It thus seems overly optimistic to hope that the participation of someone 'described' will make 'information users' positive, or indeed that the participation of an information user from one group will make information users from other groups accept the principles. Even within the participant's group, achieving broad acceptance will require additional attention. Representation in itself is not sufficient.

In Baronas and Louis' experiment (see p. 103 above), users developed an acceptance of the system based on a feeling of control over the process. One difference between my cases and their experiment is the proportion of users who participated. In their experiment, all users were subjected to the attempt to give them an impression that they were in control. In my cases, only some managers and a local user or system operator actually participated in a way that gave them some sense of control. It thus seems that a feeling of meaningful participation in the development of the principles

needs to be achieved among a large proportion of the information users in order to gain broad acceptance through participation.

Given the local effect of participation, project managers then seem well advised to enlist participation from all groups who need to accept the new principles, and pay attention to how the positive effects of the participation can be made to spread from those who participate more actively to those who do not.

6.2.5.4 Summary of problems in handling diversity of perspectives

Diversity in the perspectives of stakeholders is a recurring theme that gave rise to problems in the projects. Information users are to be found in many places in the organisation, even far from the source of the management accounting data. Project managers had problems identifying all groups of users and realising that what was regarded as appropriate principles differed among groups of users. Neither were the information users within groups necessarily as homogeneous as assumed by the project managers. A result of this was that there were information users in each of the cases who were not satisfied with the principles of management accounting that the project manager saw as appropriate.

Another aspect of the diversity was that the understanding of the principles at the time of implementation (when the information users ought to have understood them in order to use them to advantage) varied from good to quite poor. The project managers had difficulty in detecting that this was the case. They also underrated the task of spreading knowledge of the new principles to the information users and the difference between getting the principles approved formally and getting them accepted by the potential information users.

In the spreading of knowledge and acceptance, those project managers who enlisted local participation seemed to overrate the effects the participation of a few local partners would have. Knowledge of the new principles as well as acceptance of them did not spread far from those who participated in the projects. The local acceptance actually developed was, however, in combination with acceptance among high level managers and accountants, sufficient to help the new systems survive.

6.3 User reactions: uninterested or uninformed?

A pattern reappearing in a number of cases is that of a mismatch between the project manager's desire for user reactions and actual user response. One example is when the project manager asks users to evaluate or even approve a design before adopting the principles in the management accounting and control information systems. The users then say OK, or do not respond. The project manager takes this as a go-ahead, but once the information system is in production users start reacting against it, questioning the principles, the accuracy of description or the quality of the data. In terms of Figure 6.14, the first step appears to the project manager to be in the bottom left hand corner, but is actually in the bottom right hand corner. The project manager asks for an evaluation of the design, or that the users verify the accuracy of the design. The response he receives seems to him to be the result of such an evaluation, but is not. When the actual evaluation or verification procedure takes place (when the principles are applied in an information system), there is again a mismatch: the user volunteers his evaluation at a point in time when the project manager is not looking for one, and even considers the matter closed.
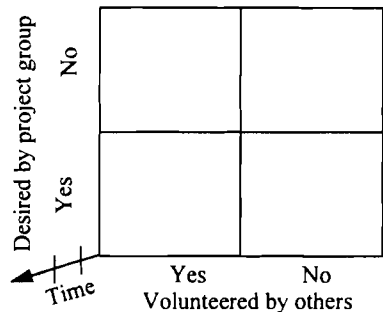
Figure 6.14 Perspectives desired by the project group

6.3.1 Examples of the pattern

Below is a summary of indications of the pattern of a mismatch between response sought and response provided which I have found in the cases in chapters 4 and 5.

Case	Example of mismatch
Management accounting change in a bank (4.1.1)	"During the fourth year of the process, managers started using the product costing reports regularly. When they did, they also began to question the cost allocation principles. This was two years after the principles were developed and some time after reports started appearing." (p. 120 above)
Bringing cost-consciousness to the mutual insurance company (4.1.3)	"The project team developed a listing of expense categories and circulated it to the departmental managers with a request for comments, but few were received." One response was 'get it up and running and see what happens, and we can see where the holes are...' (p. 124 above)
Local development at the road department (4.2.2)	The project team discussed the accounting structures with the engineers until both parties were satisfied. (p. 142) When the concrete work with the budgets commenced, the suggested accounting structures started to change. (p. 147)
Case G1	The manufacturing costing principles were circulated before they were accepted, but not until budgeting became based on the new production costs did the users respond with comments on the design.
Case G2	The project manager held meetings with information users who voiced discontent with the new principles, in order to discuss the problems they were experiencing. The discussions and adjustment of the principles seemed to solve the problems. The following year the grumble reappeared. The project manager met again with those complaining, and asked for concrete examples. She did not receive many, but neither did she hear any further complaints.
Case H	"Their head of finance and accounting has expressly said yes to the question of if they understood the new principles and could implement them. The problems they have complained about ought not to have been problems to them." (Project manager comment, p. 195)

In the following sections, I explore two alternative interpretations of the mismatch and implications the interpretations have for adequate ways of addressing the mismatch. One way of interpreting the pattern in the examples is that the late response appears when the information users begin to understand the consequences of using the new principles. The mismatch can then be interpreted as an infological problem, an alternative that is explored in sections 6.3.2 and 6.3.3 below. Alternatively, the

mismatch may be a symptom of conscious or subconscious uneasiness with the proposed change, an uneasiness that the information user finds difficult to put in words, or does not see as legitimate to voice. I return to this alternative in section 6.3.4.

6.3.2 Understanding the mismatch: an infological approach

In terms of the infological equation,[254] what seems to happen is that the project manager sends a message (D): the design in the form of principles. He expects the recipient to study and understand these principles, *and mentally apply them to his own operations*

$I = i(D, S, t)$

I – Information

i – The interpretation process

D – Message received

S – The interpreting structure

t – Time used for the interpretation

Figure 6.15 The Infological equation

(using a part of his S). The information that the project manager expects the recipient to derive is the consequences the principles will have when applied to his operations, and he expects that the recipient bases his reply on that evaluation. What the project manager then underestimates is the ratio between the time it would take the recipient to perform such an analysis and the time he is willing to spend on the task.

Following the distinction between *participation* and *involvement* made by Barki and Hartwick (see p. 72 above), the recipient is participating, but the time and mental energy he is prepared to spend on checking the design is based on his involvement, which is rather low. The recipient checks if the design seems reasonable as a logical construction, not in relation to the consequences it will have when applied.[255] When, later on, the information system presents him with management accounting reports pertaining to his area of responsibility, the time needed to interpret these in terms of consequences for his area of responsibility is drastically reduced. At the same time, the consequences he sees bring the issue clearly into his area of responsibility, and his involvement increases. The ratio between time

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[254] The infological equation was presented on p. 53 ff. above.

[255] This happened, for example, at the presentation of the principles that the project manager in H held for managers in the local companies.

needed to understand the consequences, and time he is willing to spend, is drastically reduced, and he now makes the evaluation the project manager asked for during the design phase.

The project managers I have interviewed have been surprised at this imbalance in timing between request for feedback and receipt of feedback. Some view it as a problem they should have addressed, while others see it as the recipients not facing up to their responsibilities.

In terms of the recipient's point of view (Figure 6.16), the discrepancy is in the upper or the lower right hand corner. In the cases I have studied, the recipients did not ask for more explicit explanations than they received. The recipients were either uninterested in the development of principles and did not wish to receive more explicit accounts of the planned changes, or wanted more information than they received, but did not signal this clearly.
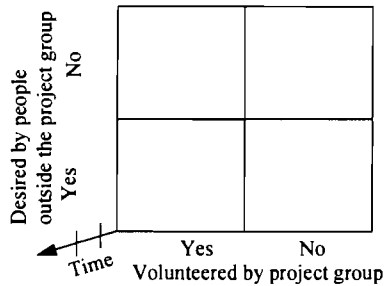
Figure 6.16 Project group perspectives desired by others

One interpretation is that the imbalance could have been solved if the project manager had moved from the No to the Yes column, providing detailed and applied explanations of the principles and how they would come to affect each area of responsibility. Such an attempt to diminish the effort needed to understand the consequences of the proposed change would probably lead to more reactions from the people whose perspectives the project manager tried to solicit. Judging from the discussions of the power implications of management accounting changes above (section 3.3.2), it is, however, possible that the people asked to ratify the design actually see or sense consequences that they feel are negative, but not legitimately debatable. Not "understanding" may then be a way of stalling the unwanted changes. I will return to this line of thought in section 6.3.4, but first I will discuss ways of addressing the mismatch problem if it is a question of understanding or interest.

6.3.3 Addressing a lack of understanding or interest

Based on an infological approach, a lack of response that stems from a high ratio of 'time needed to understand' to 'time the person is willing to spend' could be addressed by the project manager through an increased focus on what he sends to whom. The project manager probably needs to get below a certain ratio of 'time needed to understand' to 'time the person is willing to spend' to receive contemplated ratification of the principles he proposes, at the point in time when he needs the ratification. Obviously, the ratio can be decreased by decreasing the numerator as well as by increasing the denominator.

$$\frac{\text{Time needed to understand}}{\text{Time the person is willing to spend}}$$

Figure 6.17 Time ratio determining information derived

More customised material, showing examples that apply the principles to the business context of the receiver, will decrease the time needed for the receiver to understand the implications of the new principles. To a limited extent this was successfully done by the project manager in G2.[256] Judging from my interviews, it seems that the project managers tend to underestimate the effort it takes for someone who has not been thinking about the principles of management accounting and control as much as they have, to understand them to a degree where it is possible to apply them to his own area of responsibility. The project manager who develops the new principles is the expert on those principles and could, with limited effort, produce applied examples.

Increasing the time the person is willing to spend on the problem is another, and complementary approach. Deploying hierarchical power is one way of addressing this side of the ratio. Trying to understand an aspect of the recipient's perspective such as what motivates him, is another. The researcher in the road department and the social welfare department cases (4.2.2 and 4.2.3) found that if he showed a genuine interest in the work and thoughts of the people he tried to communicate

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[256] The project manager in G2 found that she had to supply the interviewees with applied, customised numerical examples illustrating her understanding of their business activities to ascertain that her understanding corresponded to their understanding.

with, they responded with an increased interest in the management accounting and control issues on which he wanted their opinions. In projects F and G1, people the project managers have managed to make interested in assisting in the project, have been rather young and have seen learning about the larger context of their work as an important, or perhaps even the main, benefit of participating. They have shown some kind of interest in management accounting principles, but once participating in the project their involvement has grown when they have detected how the project context allows them to contact people in the organisation and discuss how activities and business processes function, interconnect, and help or hinder each other. This reason for involvement would not appeal to managers who believe that they know the organisation. Building on reciprocity, as the researcher in 4.2.2 and 4.2.3 did successfully, may then be an alternative way for the project manager to increase the time they are willing to spend. Demonstrating usefulness may be another.

In case F, case G and in the cases recounted in section 4.1.1 (Management accounting change in a bank) and in section 4.1.8 (An activity accounting project in the electronics industry), there were managers who came to appreciate the information they derived from the new information systems. This appreciation built on actual figures describing aspects of the operations they were managing, not on the underlying management accounting principles as such. This indicates that presenting applied examples illustrating the usefulness of a new management accounting approach, rather than posing the more abstract question of if the new principles accurately depict the business operations, could serve to increase the amount of time a manager is willing to spend on trying to understand and evaluate those principles.

6.3.4 Understanding the mismatch: a defensive routine approach

'Not understanding' viewed as a defensive routine, rather than simply a practical problem, would suggest other ways of handling the situation. Kylén distinguished between defence, resistance, and tactics, depending on the level of consciousness of the reasons for the defensive routines. (See p. 80 above.) When specific users repeatedly return with complaints regarding the same set of principles, the project managers, or their colleagues, come to view the questions as a display of tactics. The first response to non-understanding from project managers who are responsible for the implementation of the newly developed principles, is an attempt to educate those who question the principles; they try to explain the principles and show that they provide valid descriptions of the business operations (cases F and G). If repeated attempts to educate fail, the project manager appeals to superiors, ignores the criticism or, if the person complaining was meant to enter data into the system, enters these data himself in order to keep the information system functioning.

In case G, the second project manager was surprised to note that no opposition surfaced at a discussion meeting she arranged in response to opposition and criticism towards the newly developed costing principles. Because of the lack of questions, this discussion mainly took the form of a unidirectional presentation held by the project manager. Yet, much of the criticism stopped as of that meeting.

An interpretation of this effect is that the criticisms were examples of defence or resistance: subconscious defensive routines. The basis for the criticism may have been more a sense of not being included in the process, than discontent with the management accounting principles. The *symbol* of being given an opportunity to discuss the principles was the important part, not the actual discussion.

Kylén proposes that addressing defensive routines is a question of explicitly discussing the manifestations and their causes. Two causes suggested in my study are feelings of being excluded from the design phase of a change that will affect one's work, and perceptions that the change will produce consequences that will negatively affect one's work or position. Trying to find ways to make people feel included in the

process, and actively creating opportunities for discussions of consequences of different design choices would be ways of addressing the mismatch if it is the result of defensive routines. In contrast, focusing on the manifestations without trying to discuss the causes, may not help solve the problem. One example of this approach is the focus of the system owners in 'A financial information system at Golden Triangle' (4.1.2) on the alleged technical problems. The system owners addressed the technical complaints, i. e. the manifestations of the underlying problem of increased scrutiny. The complaints kept recurring, and the system owners then resorted to using force. An example of the alternative approach, of focusing on causes, is provided in the Uppsala cases 4.2.2 and 4.2.3, where the researcher sensed resentment towards the project from the local stakeholders, and then devised ways of involving them in the process, and discussing with them how the principles could be designed to be of benefit to them as well as to information users in central political bodies without subjecting them to increased scrutiny and the loss of discretion, causes of their resentment.

6.3.5 Summary

In this section (6.3), I have discussed the observation that information users often do not respond to suggested changes in management accounting principles in a way that project managers expect. Their reactions to the principles tend to be neutral and accepting. When the principles are implemented, a number of critical voices make themselves heard and the users' involvement in the issue of management accounting and control principles increases. The discussion has centred on obstacles to obtaining involvement and feedback earlier. Based on the idea of a ratio between time needed to understand and time a person is willing to allot, the paths of facilitating understanding and of increasing the willingness to allot time have been explored. A second line of reasoning explored the possibility that the mismatch between feedback sought and feedback received is a result of defensive routines rather than of poor understanding of the accounting logic and its consequences. In that case, approaches focusing on the users' understanding of the accounting logic will be of little help to the project manager. Instead, learning to identify and handle the concerns or resentment then appears to be a more promising approach to solving the problem.

6.4 The project as activities and processes with person and task aspects

The main theme in this section is to develop the idea of a process description consisting of coupled Xs, presented in the theory section, in the light of the cases in chapter 4 and 5. The process consists of a series of (possibly overlapping) phases, and these phases have a subjective as well as an objective side to them. An important modification is that development of acceptance and of understanding are processes which continue throughout the project, and which ought to be explicitly supported in the different project phases.

6.4.1 Parts of the project

Figure 6.18 is an illustration of the process phases I arrived at in the theory section above (p. 41). I suggested that the process from idea to termination of a set of principles of management accounting and control could be described in terms of a number of phases: idea, initiation, project formation, etc. I noted that iterations of portions of the sequence may be possible, although the figure does not explicitly illustrate this. Each phase
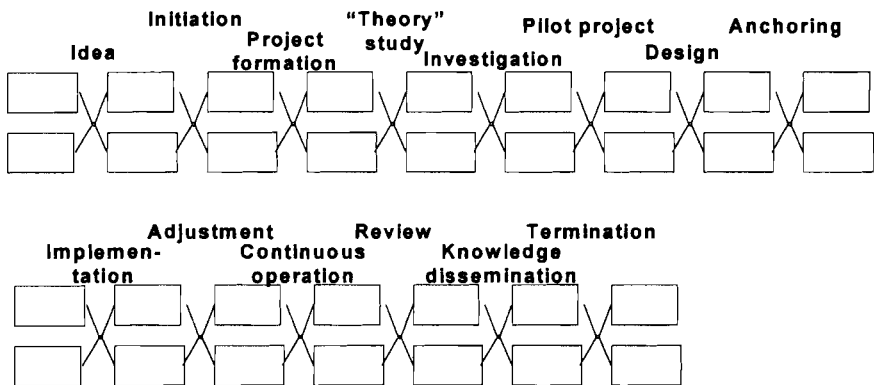
Figure 6.18 Phases in the life cycle of principles of management accounting and control (reproduction of Figure 3.8)

would have the end results of the previous phase as potential input, and would produce some results or output. I also suggested that it could be useful to try to distinguish between a task level (more concrete and objective) and a person level (more mental or subjective).
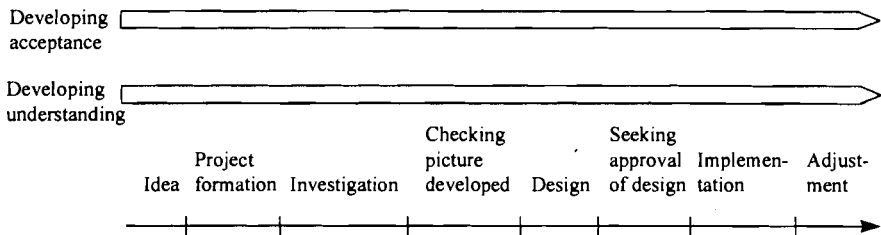
Figure 6.19 Phases and processes in the early part of a life cycle of principles of management accounting and control.

Figure 6.19 is a modification of the picture of the process presented in Figure 6.18 and is based on the processes I have studied. Therefore, it does not cover the entire life cycle up to and including termination, as I have mainly studied the birth of principles, not their life once they have matured (if they ever do). Instead, I chose to end with Implementation and Adjustment. Implementation and Adjustment tended to take considerable time if viewed as the period from the first attempt to launch the principles in the organisation, until they could be said to be established in a state of 'continuous operation'.

The main difference between the two pictures is that the one provided in Figure 6.18 consists entirely of phases, while I make an explicit distinction between phases (marked along the time line) and processes (drawn as arrows above the time line) in Figure 6.19. The processes single out subjective aspects, while the phases at the bottom of the figure have more concrete or 'objectively' tangible end results as an important part. I will return to this distinction below.

The sequence of phases in Figure 6.19 starts with Idea. Here this phase includes thinking and discussions until some concrete action is taken. I then excluded the label Initiation, as the concrete action typically took the form of projects. The Project formation phase could then well reappear later in the life cycle, as for example in G and in 'Management accounting change in a bank' (4.1.1). I then excluded the 'theory study' phase as it

involved only the project manager in the cases where it appeared as a major activity. Other stakeholders in the organisations have not participated in such a phase. (However, in F and G1 the project manager had a brief session of 'theory study' aimed at others – in G1 at top management, and in F at the local project teams, as part of the idea and project formation phases.)

The next phase is 'investigation', since the processes which I have investigated closely, (F, G, and H), have included substantial investigation phases – a period of time spent studying the business activities. I have then included the step 'checking picture developed' as separate from the investigation phase, because the manner in which the project managers have performed this step has also affected the picture developed, and the appropriateness, understanding, and acceptance of the principles.

'Checking picture developed' is followed by 'design', a phase which has been quite important, not only for what principles were developed, but also for the appropriateness, understanding, and acceptance of them. I excluded the 'pilot project' phase (that lies between 'investigation' and 'design' in Figure 6.18) from Figure 6.19, as the pilot projects were merely iterations of the main process phases (investigation, checking, design, seeking approval). Sequential design, in one section after the other, was also more of a rule than an exception, and so the pilot is only unique in being the first one of a series of iterations through the phases. Later sequences play a similar role of increasing the project manager's knowledge in relation to sequences yet to be initiated. The notion of iterations is thus implicit in Figure 6.19, as it was in the previous figure.

Next, I replaced the 'anchoring' phase with 'seeking approval', because the process of anchoring has, as suggested in the theory section, been going on in different ways, intended and unintended, throughout the process. It is thus not useful to think of anchoring as a specific phase, and I have not used the term at all in Figure 6.19. It does, however, have more formal and phase-like components. 'Checking picture developed' could be one. Another is the one I have chosen to term 'seeking approval', a name indicating that it is a conscious activity carried out by the project manager. This approval refers to is the approval of the principles developed which he needs in order to start implementing the principles.

If 'approval' is more of a formal 'go ahead', then acceptance is more of a subjective, mental construct. Acceptance relates to the willingness of a person to use or be subjected to the use of a specific set of principles of

management accounting and control. Stakeholders' acceptance is influenced by the entire process of developing the principles, not just by the resulting principles as such. Thus I have added 'developing acceptance' as a process that continues throughout the project, in parallel with the phases. Likewise, I have added 'developing understanding' as a process that extends in parallel with the phases. I termed it 'developing understanding' rather than 'knowledge dissemination' to indicate that it is not necessarily a matter of transferring knowledge from the project manager to others, but that it can include the exploring and learning of other actors *in parallel* with the project manager's development of *his own* knowledge, or the private search for understanding by a user. 'Knowledge dissemination' is important in the expert model for development, employed by the project managers I studied, but it frames the question as one of teaching; the project manager knows and will teach the others. But teaching is not the only part of developing understanding. In the projects studied, more spontaneous learning appeared to be important too, such as that which took place in discussions between project manager and managers in production in F, in discussions the product manager in G1 participated in, or in the discussions between researcher and line personnel in the Uppsala cases (4.2.2 and 4.2.3). This non-teaching-induced learning has a character akin to what Lundeberg calls developing a combined perspective, and what Boland and Tenkasi termed 'perspective making',[257] i. e. the development of similar perspectives that may take place in a group (in this case, perspectives on principles of management accounting and control). Given a less centralised pattern of communication, learning that is not induced by teaching can be expected to be a more prominent part of 'developing understanding'.

I am not implying that learning without teaching needs to be unplanned. Situations may be designed in such a way that they promote learning, if that is an objective. In the cases I have studied, 'developing acceptance' as well as 'developing understanding' have contained planned as well as unplanned parts. Only an all-knowing project manager could conduct a project where these two processes consist solely of planned parts, but a project manager actively practising perspectives management can change the balance from unplanned towards planned. He can probably also avoid some of the negative surprises that the project managers in this study have

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[257] See p. 56 ff. above.

met. Developing understanding takes time, time now primarily awarded the project manager, but which he does not recognise as important when disseminating the resulting principles of management accounting and control.

Another improvement suggested by this study involves the project manager placing more emphasis on finding out about different information users' views of their information needs and the situations in which they use information, rather than deducing their needs based on his own views, possibly supplemented by some additional sources. Creating the opportunity for and encouraging discussions with and between stake-holders on consequences of different design choices is yet another. Both these examples build on a recognition of the multiplicity of possible perspectives, and the diversity in criteria for assessing the relevance and usefulness of principles of management accounting and control that exists across and within groups of individuals.

Developing understanding and developing acceptance, the processes in the upper half of Figure 6.19, are subjective in the sense that the results reside in the minds of individuals.[258] The phases in the bottom half of the figure are more objective in that the product is something tangible: documented principles of management accounting and control, probably manifested in information systems. In the following section, I continue to develop the notion of subjective and objective focus in managing management accounting and control projects, using the X-model.

6.4.2 Project results in terms of the X-model

In this section, I explore the project outcomes in terms of the X to address the topic of impersonal system focus versus 'soft systems' focus (where the developments on the 'person' half of the X are a vital part of the process of producing successful systems).

The direct results of the projects are both on the person and on the task level, in the terminology of the X-model (presented on p. 40 above). The figure below illustrates project input and output in terms of an X. Input on the task side includes the objective that has been set for the project, the

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[258] The analysis in section 6.2 highlights the importance of including information users early in these processes. If information user understanding and acceptance were not considered to be worth attending to prior to the implementation stage, resistance was a normal result.

time frame, and the resources allotted. On the person side, I have noted knowledge of the business activities and knowledge and view of management accounting and control as important determinants of what can be achieved. Knowledge and views are spread among many, and the similarities and dissimilarities between stakeholders will influence what can be achieved by the process.
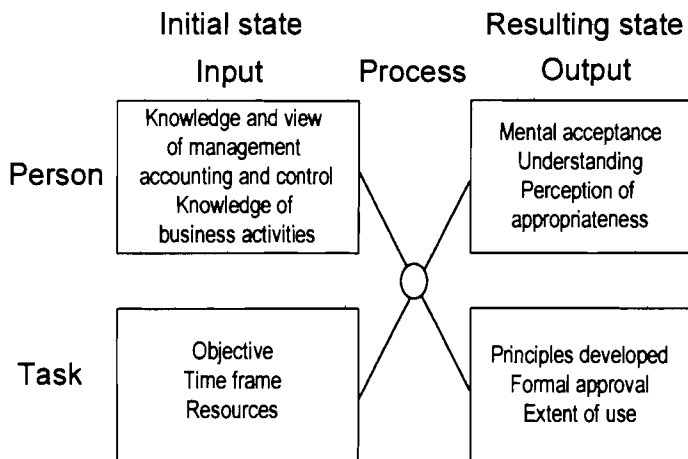
Figure 6.20 A view of the projects in terms of the X-model

The project managers in chapter 5, as well as most project managers in chapter 4 (except in sections 4.1.7, 4.2.2 and 4.2.3) seem to have focused most on achieving task results: delivering a set of principles, and obtaining formal approval of these principles. The actual extent of use of the principles, though also a task result, does not seem to have been their direct aim. They either saw the extent of use as someone else's task or as a natural and uncomplicated consequence of producing principles that received formal approval.[259] The choices they have made during the process appear to have centred on achieving a set of principles that have been approved,[260] rather than on the more distant goal[261] of achieving

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[259] As a number of the cases show, formal approval does not guarantee that the principles will be used.

[260] This is in line with a narrow interpretation of the objectives of the project.

[261] Pursued by the project manager in 4.1.7 and to a large extent also in 4.2.2 and 4.2.3

principles that are used to advantage. Examples of such a decision include the low focus on developing the users' understanding of the principles being developed, and the strong focus on the descriptions provided by 'those described' rather than balancing this with the users' perceptions of information needs.

The project managers also seem to hold a view of the appropriateness of the principles as an objective trait that belongs on the task side. Rather than placing appropriateness on the task side as an independent result, I would place *perception* of the appropriateness of the principles on the person side. It is appropriateness *subjectively perceived* by information users that determines how they use the principles, rather than the project managers', or someone else's view of objective appropriateness. Such a view is also subjective, and has no effect on the use unless shared by an information user. As noted in several cases, perception of appropriateness may differ between information users, and affect usage. Two product managers, for example, can hold different views of the appropriateness of the principles, and use them to different extents, although the work they perform would appear to be very similar. Likewise, I would argue that the understanding of the principles that individuals have developed, and the mental acceptance of the principles, are mental phenomena that help determine the actual use of the principles, but that reside only in the minds of the individuals.

Thinking in terms of perspectives management means attributing a larger importance to the person level of the X. This means recognising that perception of appropriateness, understanding, and mental acceptance of principles of management accounting and control, are subjective. They reside in the heads of the stakeholders and are strongly influenced by the process by which the principles are derived, not just by the resulting principles. The principles can be more or less congruent with the perceptions of a specific stakeholder, and the extent of communication with the stakeholder during the development process affects the congruence actually achieved. It can also be noted that there is little automatic transfer of knowledge or acceptance between stakeholders. The participation of one stakeholder in one part of a project does not ensure that other stakeholders learn from him or are influenced by him, not even if they are his functional colleagues, or even members of his own department. It does not even ensure that this participating stakeholder develops a mental acceptance of parts of the process that he has not participated in. It seems that

the project manager needs to explicitly address the development of under-standing and acceptance. They do not just happen, or grow spontaneously at a rate that ensures success.

7 Patterns of communication

The purpose of this study has been to identify patterns of communication that project managers in management accounting and control projects develop, and what consequences these patterns have on the effects of the projects. The patterns of communication and the consequences have been viewed in relation to the long-term goal of creating a system of management accounting and control that is used to advantage.

The analysis has highlighted a number of patterns of communication, often on a detailed level. Below I focus on four general patterns of communication that I have identified, and their consequences. The patterns are:

- the star-shaped pattern
- the local partner
- the 'objective description' focus, and
- the formal approval focus.

I conclude the chapter by presenting my views of implications of my findings for how the management of projects can be improved.

7.1 The star-shaped pattern

Through communication, stakeholders can learn from each other, develop shared understandings, but also identify points of disagreement and discuss these. Two forms of node/link patterns of communication possible in a project are those depicted in Figure 7.1 and in Figure 7.2. In Figure 7.1 the project manager serves as the only hub of the pattern. In relation to the discourse on management accounting and control, the figure thus illustrates the pattern of a project manager communicating with one stakeholder at a time, while the stakeholders do not communicate directly with each other on this topic. In Figure 7.2 all stakeholders have direct paths of communication with others. The project manager still communicates with all stakeholders, but possibly in constellations involving several stakeholders at once. The stakeholders may also communicate with each other without the project manager taking part in the discussion.

Figure 7.1 A star-shaped pattern of communication

The typical pattern of communication exhibited by the project managers in my cases (chapter 5) has been closer to the star-shape depicted in Figure 7.1 than to the netlike pattern in Figure 7.2. They have been intent on developing their own understanding of the organisation rather than developing a dialogue between stakeholders. Taking an expert analyst role, they have each been the centre of a star, communicating with one stakeholder or one group of stakeholders at a time, rather than trying to establish direct contact between different stakeholders.

Figure 7.2 A netlike pattern of communication

The positive consequences, such as learning about the different business activities, and establishing a net of contacts that could facilitate future work, were thus concentrated to the project manager. The project manager, serving as a filter, also determined what was communicated between the other stakeholders. The star-shaped patterns of communication served as instruments for what the project managers sought, but prevented the development of discussions and effects that the project manager had not foreseen or did not seek. In all projects in my cases (chapter 5) unanticipated complications arose at implementation, stemming from differences in goals and interests or from power shifts between stakeholders, topics that had not been explicitly discussed or considered in the projects.

In the published cases (chapter 4) both more and less ambitious attempts to communicate were seen, compared with my cases. Some project managers developed more netlike patterns of communication, and others established star-shaped patterns that were very limited. Those who developed more netlike patterns also produced systems that seem to have been positively received at implementation. However, the nets were partial, consisting for example of a group of information users and their managers, or of limited interactivity, such as conducting a dialogue concerning the design in the form of a written exchange. Not one project displayed a pattern of communication that was elaborately netlike.

The star pattern was most pronounced during development. After implementation, cross stakeholder communication relating to the systems started to develop in a number of cases. Often such communication was a consequence of problems caused by the system (stakeholders trying to solve a problem by discussing it with others, or just complaining to each other), but there were also examples of interfunctional communication inspired by the system.

It is not strange that the project manager has a strong influence on the pattern of communication during development. It would be technically possible for stakeholders to establish direct contact with each other, but it is the project manager who focuses on developing principles of management accounting and control, while for others that topic is peripheral relative to their main tasks. The other stakeholders may thus initially lack the involvement needed to initiate a dialogue with others on the topic. At and after implementation their involvement increases if the application of the principles has noticeably begun to affect their working situation in a concrete way.

7.2 The local partner

Management accounting and control projects normally seem to be run by members of the central accounting staff function. This is the case in the projects in my cases (chapter 5) as well as in most projects in the published cases (chapter 4). Projects run by staff may have problems achieving acceptance at operative levels in the line organisation. As could be expected, participation of stakeholders at operative levels seemed to promote acceptance.

The stakeholders who participated in the projects tended to accept the principles developed in these projects. Participation of local stakeholders thus promoted the acceptance of the systems. The opposite – that stakeholders who did not participate with some degree of control did not accept the principles when they were implemented – is, however, not true. There were examples of individuals who found the systems developed useful without having had any part in the development process. However, the more the stakeholders participated in the projects and in discussions concerning the project in a way that gave them some sense of control, the more positive the resulting systems were received.

The empirical observations support the notion from user participation literature that user participation in the development phase may increase the time needed for that phase, but that successful implementation (leading to actual use of the information, not just production of data) seems difficult where user participation has been scarce.

In a number of cases the project managers have employed limited local participation to achieve acceptance. The project manager has given the role of local project partner to someone and communicated extensively with him during some part of the project (typically during information gathering, and to some extent during design). To some extent, this local participation has led to acceptance of the principles produced, but the acceptance has not been homogeneous across stakeholders affected by the new principles.

One step is conferring a sense of ownership of the principles developed from central staff to local actors. [In Figure 7.3 this spread of acceptance is indicated by the thick 'A' arrows leading from the project manager in a staff position (at the top of the figure), to the two local participants in two different line functions (at the bottom of the figure)]. This seems to have worked rather well. The local participants all came to feel a sense of ownership of the principles developed in the projects they participated in, even if their perceived control over the actual design was limited. They were also viewed by stakeholders at the local level as the ones to turn to with questions and complaints. However, they did not necessarily come to accept principles developed in other parts of the organisation (the spread of acceptance indicated by the 'A2' arrow in the figure).
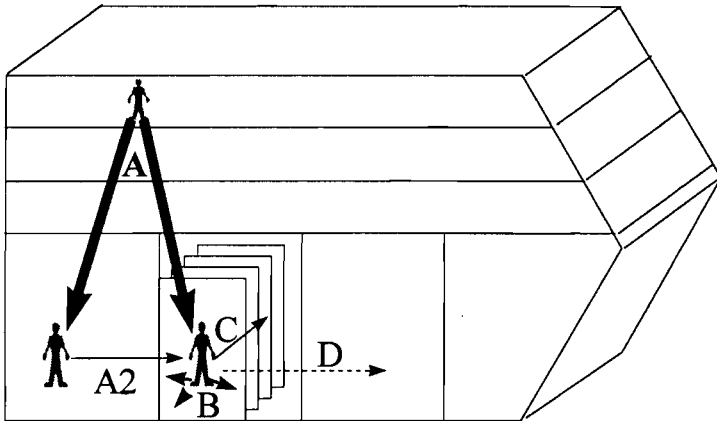
Figure 7.3 Spread of knowledge and acceptance

The further spread of acceptance – the spread to others in the same unit as the local participant (a path indicated by the small 'B' arrows in the figure) – has been less successful. The principles were rather passively accepted by the colleagues of the participant, indicating that their *involvement*[262] remained rather low. There seems to be even less spread across sister units than within a functional unit. (The path from the local participant to colleagues in a sister unit is illustrated by the 'C' arrow.)

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[262] Involvement in the psychological sense, see 'Participation and involvement', p. 72 above.

Thus it is not only a matter of functional representation, but also of representation of organisational unit.

The spread within and between units with the same specialisation as the local representative has been rather moderate, but there is a sharp difference between how the principles were received in the function where they were developed and in functions that had not participated in the development process. Thus the accounting principles developed for *production* were met by rather strong criticism by information users outside production. (The spread from a local participant in one function to non-participants in another function is illustrated by the 'D' arrow.) For the product managers, the after sales representatives, or the product designers, who would be information users, it made little difference that the projects had been conducted with representation from production, when the information users themselves had not participated in those projects. The effect participation has on acceptance *across functions* thus seems to be quite low.

These effects of participation appear reasonable. Enlisting local participation that gives the participant some sense of meaningful contribution appears to confer a sense of ownership of the result on the local participant, even if he does not feel to have been in strong control of the development process. Probably a contributing reaction is that the actor aligns his views with his actions. As noted in the theory section, actions and statements one has made publicly, without being forced, tend to generate a feeling of commitment. Part of the reason the participant accepts the principles may then be because he has agreed to participating in the process and has participated.

Because of differences between units within a business function (such as marketing) the pattern of lower acceptance and adoption in neighbouring units could be a consequence of lack of appropriateness for those who have not been represented in the project. The representative's view of appropriateness is likely to differ even more from the views of those who belong to another functional specialisation. The pattern of lower acceptance and adoption could also be a result of diffusion of knowledge and enthusiasm from the representatives to their colleagues – diffusion that is likely to be lower the greater the distance between representative and colleague.

Given representation, the development of appropriateness and transferral of knowledge and enthusiasm probably interact: representation leads to higher appropriateness for the people represented, or at least to a

potential appropriateness that is easy for them to appreciate. The customised appropriateness makes it easier for the representative to get his colleagues to appreciate the new system, and his status as colleague facilitates the dialogue between him and the colleagues. Creating this dialogue is easier than establishing and maintaining a dialogue between central accounting staff and information users. The risk of a not-invented-here reaction also decreases among those who have had a colleague as representative.

The positive direct effects of participation that I note correspond to suggestions and findings discussed in chapter 3 (Theoretical framework), but my analysis of the indirect positive effects of participation indicate that they are more limited and more local than the project managers hoped for, and also more limited than could be expected from the discussion (in chapter 3) of proposed benefits of user participation.

In the spreading of knowledge and acceptance, those project managers who enlisted limited local participation seemed to overestimate the effects the participation of a few local partners would have. Knowledge of the new principles as well as acceptance of them did not spread far from those who participated in the projects. However, the local acceptance actually developed was, in combination with acceptance among high level managers and accountants, sufficient to help the new systems survive. In the cases describing development of systems that failed, local participation does not seem to have been employed, and in cases with considerable local participation systems appear to have been successful.

7.3 The 'objective description' focus

Three possible focuses when developing princi-
ples of management accounting and control are
the description of the business activities the
principles will provide, how these descriptions
will be used and what information needs they
will fill, and the effects the use of the principles
will have. (See Figure 7.4.) A pattern displayed
by the majority of the project managers is that
they focused on the lowest of these levels, and
what they saw as objective descriptive accuracy,
paying far less attention to the other two levels.
This resulted in communication during an
information gathering phase, centred on obtaining descriptions of the
business activities that the principles would describe, typically from
people in these business activities or from people whom the project
manager had easy access to and believed could describe them well. Most
project managers communicated less (if at all) with information users
outside the business activities described. They also had little communi-
cation with people in the business activities regarding these people's role
as information users and the effects the use of the principles would have.
The project managers then conducted the design with limited communi-
cation with others (except possibly with some functional colleagues).

Effects of use
Use and information needs
Description of business activities

Figure 7.4 Three focuses

This pattern ignored much of the diversity in the perspectives of differ-
ent stakeholders. Potential information users were to be found in many
places in the organisation, even far from the source of the management
accounting data. Project managers had problems identifying all groups of
users and realising the differences in what was regarded as appropriate
principles by different groups of users. Neither were the information users
within groups necessarily as homogeneous as assumed by the project
managers. As a result, in each of the cases exhibiting this pattern there
were information users who were not satisfied with the principles of man-
agement accounting that the project manager saw as appropriate.

The project managers viewed the principles they had developed as
providing clear, logical and objective descriptions of the business
activities. Consequently, they put little effort into explaining the principles

to the prospective information users and other stakeholders prior to implementation. I noted a number of indications that understanding was a more complicated issue for those who had not actively participated in the design process than the project managers believed.

To the project managers, it normally seemed that the stakeholders were initially able to recognise the principles as a description of the business activities that to some degree corresponded to their pictures of those business activities. However, in the process of producing a description according to the principles, or understanding how the model corresponded to the reality in detail in a specific instance, information users or system operators came to realise that they did not understand the principles to that degree. This then led to (sometimes unwarranted) criticism of the principles, to hurried attempts from the project manager or system operators to explain the principles, and to attempts on the part of system operators and information users to make sense of the principles on their own. The need or desire to understand the principles to this degree normally did not arise until they tried to use the principles. (In the projects studied this has typically taken place during the implementation phase.)

The question of use and information needs was typically addressed by the project managers by implicit or explicit deduction rather than by discussion with the potential information users. Mismatches between the project managers' and the information users' understanding at this level have occurred in all my cases and in several of the published cases. This mismatch either took the form of the project manager thinking of a specific user but not quite capturing to what end that user would rely on the principles, or failing to identify a user altogether. For stakeholders to whom the application of the new principles has meant little change, the absence of a discussion during design does not appear to have been a problem, but where the change has been noticeable, a debate on the appropriateness of the principles has arisen after the principles have been implemented. These debates have had the character of criticism and defence matches, rather than being discussions on how best to serve the users' information needs or how best to utilise the information that can be derived from the new principles.

The third level in the figure, that of the specific consequences of using the description provided by a specific set of principles, stirs up emotions. This level includes issues such as adjusting one's behaviour based on information derived from the description, or losing or gaining apparent

profitability. The problems associated with not having developed and discussed different stakeholders' understanding of the consequences of using the principles, prior to or during the design of the principles, seem to have been underestimated by the project managers. Few project managers seem to have tried to handle the issue prior to or during design. In my cases (chapter 5), the consequences have been limited use of the principles or resistance to the principles from some stakeholders, but the principles have been implemented and the systems have survived. In the published cases (chapter 4) examples of the same type of reactions can be found, but in some of the cases resistance has led to the discontinuation of attempts to introduce the new principles.

Above I have discussed the pattern of viewing the principles as mainly an objective description, focusing on the description of the business activities and paying little attention to the use of the description and the effects of the use. I have highlighted a number of complications that arose as consequences of this pattern. When the project managers actually paid more attention to the higher levels, and to developing their understanding of them in discussion with many information users during the development of the principles, or at least in time for implementation, these complications seem not to have arisen. Neither the practical understanding of the principles and the use of the principles, nor the appropriateness of the descriptions or the question of controversies regarding the consequences of using the descriptions, appear to have posed noticeable problems during or after implementation in those cases.

7.4 The formal approval focus

The fourth general pattern I would like to highlight is the focus on formal approval. Most project managers have conducted their projects as analytical tasks, seeking input, conducting analysis and design, and presenting finished products (principles of management accounting and control, and more or less of the information system that builds on them). They have sought explicit or implicit formal approval[263] of the finished product at completion, and often also approval of parts during the construction process (such as confirmation of interview documentation, or approval of parts of the principles). Explicit formal approval of the systems has mainly been sought from system owners (high level accountants and often, but not always, high level managers). To some extent, several project managers have also sought formal approval from those described during the information gathering phase, and from managers of the business activities described at the end of the design phase. Approval from the information users has often been more of an implicit character. This formal approval focus has allowed them to work fairly quickly and efficiently on constructing a logical system of management accounting and control. It has, however, not necessarily led to the construction of systems that have been mentally accepted by the stakeholders.

The mismatch between the project manager's desire for user reactions and actual user response, discussed in the previous chapter, illustrates a consequence of the focus on formal approval. (Figure 7.5 provides a graphical representation of this mismatch.) The project manager submits a proposal to information users for comments. The information users' initial reactions to the principles tend to be neutral and accepting. The project manager notes that he has given the users a chance to react, interprets the reaction (or lack of it) as approval, and proceeds with the project. When the principles are implemented, a number of stakeholders voice criticism and the users' involvement in the issue of management accounting and control principles increases. The project manager is surprised by the reactions (and often annoyed by them).

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[263] By 'explicit' I mean when they have presented a proposal to a stakeholder or a set of stakeholders and have received a 'yes' or a 'no'. By 'implicit' I mean when they have given stakeholders a chance to react, and have taken a lack of reactions to mean 'yes'.

My discussion of the mismatch has centred on obstacles to obtaining involvement and feedback earlier. One way of interpreting the pattern in the examples is that the response actually sought appears when the information users begin to understand the consequences of using the new principles. The mismatch can then be interpreted as the result of an infological problem. Alternatively, the mismatch may be viewed

Figure 7.5 Mismatch between response sought and response received

as a symptom of conscious or subconscious uneasiness with the proposed change, an uneasiness that the information user finds difficult to put into words, or that he believes cannot legitimately be voiced. The problem then becomes one of handling defensive routines.

The focus on formal approval corresponds to paying primary attention to the phases in the bottom part of Figure 7.6. Those project managers who instead placed their focus of attention on the processes in the top half of the figure, letting the development of understanding and acceptance among information users determine the pace of the progress through the stages in the bottom part of the figure, achieved a greater consonance between formal approval and mental acceptance of the resulting systems.

Figure 7.6 Phases and processes in the early part of the life cycle of principles of management accounting and control

7.5 Active perspectives management

In this last section, I offer some of my views on the implications of my findings on how the management of projects can be improved. In my study of patterns of communication in management accounting and control projects, an underlying assumption is that the ultimate aim of management accounting and control in business firms is to further the profitability of the business operations. To achieve this, it has to influence the behaviour of people in the organisation. As stated at the beginning of the book, a system of management accounting and control should therefore make a difference to how people behave.

The patterns of communication and the consequences have been viewed in relation to the long-term goal of creating a system of management accounting and control that is used to advantage. According to such a view, the task of a project manager in a management accounting and control project is to manage the project in such a way that its end result supports the management accounting and control process.

The project managers I have studied, and many of the project managers in the cases described by others, have produced concrete results in the form of principles of management accounting and control that have been developed on time using relatively limited resources, and that have been approved for implementation. High-level managers and high-level accountants (system owners) accepted the principles in almost all the cases. The principles have also been applied, and accounting data have been produced according to the principles. The formal approval focus may take the process this far. If formal approval comes from the top of the hierarchy, it may be a sufficient base for technically introducing the principles. So far, so good. However, I have also noted that the potential the project managers have seen in the principles has not been fully actualised. The essence of active perspectives management is to pay attention to the subjective aspects of the process, not viewing them as an irrational impediment to the rapid development of the concrete aspects of the system of management accounting and control. My analysis indicates that more active perspectives management by the project managers, and support for such a focus from the project managers' principals, could help increase the impact of the projects.

In the cases where the potential of the principles was increasingly actualised, an ingredient was the establishment of a dialogue between

stakeholders concerning the use of the system. This dialogue led to the development of the system into an aid in conducting the business activities. When left to itself, the dialogue slowly arose over the years in a number of cases. A task for a project manager practising active perspectives management would be to try to help this beneficial dialogue develop more quickly.

The principles will not be used to advantage unless the information users view them as appropriate, understand them, and accept them. This warrants more attention paid to information user perspectives than most project managers exhibited. In addition to moving away from the formal approval focus, the 'objective description' focus is also a pattern that needs to be modified to accomplish this. A first step is to identify the information users. Several project managers had a narrowly delimited focus of attention, not communicating with or even realising the existence of a number of information users. Explicitly posing the question 'Who are the information users?' could have helped these project managers avoid neglecting information users unintentionally. In this step, the project manager should guard against the tendency to limit the focus to individuals in the part of the organisation that is being described or the part of the organisation where he himself belongs. A next step is to attempt to understand how the information users view the issue of changing principles of management accounting and control. In doing this, it would seem worthwhile to attempt to explore and manage the diversity that probably exists, taking as a starting point that it will be the stakeholders' subjective perceptions that will determine the use to which the principles are put, rather than some notion of 'objective' quality.

The analysis indicated that a netlike pattern of communication may be better adapted to exploring diversity and developing shared understandings than the star-shaped pattern. The star-shaped pattern, while suited to rapid development of a solution by an expert, concentrates the positive effects of the communication to the project manager, and places high demands on him in his position as a filter, as well as on his time. The netlike pattern offers greater opportunity for diversity to become apparent and provides each participating stakeholder with the direct experience of the other stakeholders' views.

Given that a netlike pattern of communication would be desirable, an important task for the project manager would be to help establish fora that would enable the stakeholders to participate. Within these fora explicit attention should be given to discussing not only the business activities and the connections between them, to arrive at a description that people perceive as accurate, but also to how the descriptions are to be used and what consequences specific design choices will have. Are these consequences acceptable? Can the principles be adjusted so that the consequences of using them are perceived as acceptable?

Understanding the consequences of using the description

Understanding the use of the description

Understanding the description

Figure 7.7 Three levels of understanding

In these discussions, concrete examples of applying the principles discussed seem advisable to further the understanding of the principles at all three levels, to promote the interest the participants feel for the discussions by making them relevant to their specific situations, and to demonstrate that the project manager takes an interest in the views of the local stakeholders and their situations.

The analysis also indicated that participation which provides some sense of influence has effects over and above the strictly task focused information exchanges. Those participating developed a positive emotional relationship with the system they participated in creating, in addition to helping provide the system development effort with valuable input, and learning about the system being developed. The local partner pattern had these positive consequences, but the spread of the positive effects from the participants to others was limited. This is yet an indication that it would be advisable to strive for broader participation in different ways. Furthermore, this particular indication suggests that a project manager attempting to practise active perspectives management should attempt to ascertain that those participating achieve a sense of influence.

As shown by high-participation examples, inviting more participation does not necessarily mean communicating individually with all participators. Using smaller group meetings, and even communicating in writing (such as relating the progress and inviting comments by e-mail) are methods that require relatively little of the project manager's time, but

seem to give positive effects provided that the communication gives the participants a sense of being able to influence the development process.

Active perspectives management involves trying to perceive and handle the perspectives of a large number of individuals. This is, however, not incompatible with differentiating the amount of attention paid to different individuals. The analysis indicated that people's reactions to the change depended on their perceptions of the consequences the change would have and of how these consequences would affect them. Their perceptions could differ substantially from those of the project manager. A change judged by the project manager as being of negligible consequence to a stakeholder could be perceived as dramatic by that stakeholder. To reduce the risk of unexpected negative reaction late in the process, an important part of active perspectives management is then to identify stakeholders who perceive the change as dramatic, and handle them at an early stage. Finally, to increase the impact of the new system it may also be important to identify those who perceive the change as substantially *less* dramatic than the project manager would expect them to. Such a difference may signal that these stakeholders are going to pay little attention to the new system, unless someone, the project manager, their manager, or their colleagues, manages to arouse their involvement.

Appendix

List of interviews

Person	Date and time of interview	
Case F, project manager	21.10.94	10.15–13.00
Case F, project manager	13.06.95	9.10–11.30
Case F, project manager	22.06.95	14–14.10 + 15.30–15.50, telephone
Case F, sub-project manager	22.06.95	10.00–11.00, telephone
Case G, second project manager, and director of finance	29.09.94	14.00–15.45, 14.00–15.25
Case G, second project manager	07.06.95	9.00–11.10
Case G, first project manager	30.09.94	9.00–12.00
Case G, production accounting manager	19.06.95	10.00–12.00
Case G, product manager, with short participation from production group manager	20.06.95	8.45–10.40
Case G, marketing manager	20.06.95	10.40–12.10
Case G, marketing manager	21.06.95	14.00–14.20, telephone
Case G, managing director	08.07.95	8.15–9.05
Case G, managing director	08.07.95	16.00–16.20, telephone

Case H, project manager	07.03.94	13.30–14.50
Case H, project manager	01.08.94	13.00–15.05
Case H, corporate director of finance, responsible for project	18.04.94	14.00–16.00
Case H, corporate director of finance, responsible for project	30.06.94	14.15–15.35
Case H, managing director at company level, and his accounting manager	03.05.94	13.00–14.30
Case H, another accounting manager at company level	06.05.94	9.30–10.30
Case H, managing director at group divisional level	22.09.94	8.00–9.00

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