

A Change in Plans

*A Sensemaking Perspective
on Strategy Implementation*

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Abstract

This study explores why strategic changes seldom turn out as intended. Based on the assumption that strategic plans are modified upon implementation, the study sets out to answer three questions:

- (1) How is a planned strategy modified over time?
- (2) Why do modifications occur?
- (3) How do modifications affect change outcome?

A strategic change initiative is studied over time as it is implemented in three business units within a corporation. Findings indicate that strategies are modified in at least five different ways through: expansion, contraction, interpretation error, strategic interpretation, and non-compliance. The different types of modifications are closely linked to change outcomes, which fall between the more common categories of change success and failure. Outcomes include changes that have been made on paper only, and changes that involve a mixture of old and new strategy.

Strategic change triggers sensemaking processes, which lead to different construed realities of the change content, process, and context. It is argued that multiple and diverging construed realities cause modifications either directly or indirectly. Indirect effects on modifications are channeled through conflicts or sensegiving activities.

Propositions are presented that predict when different types of modifications are likely to occur, as well as when direct versus indirect causes for modifications are most likely. One of the more surprising findings includes the tendency for major modifications to occur late in the implementation process. Findings also indicate that when modifications occur as a result of prolonged conflict and/or sensegiving activities, damages in the organization in terms of loss of trust and deteriorating work environment are more likely. Implications for change management are discussed.

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1. Introduction and Positioning

This study explores emergent features in planned change initiatives. It focuses on the implementation of planned change and probes what happens to a strategy after it has been decided upon and formulated at the corporate or top level in an organization. As suggested over twenty years ago by several researchers, even carefully planned strategies are likely to change upon implementation (Mintzberg, 1978, Pressman & Wildavsky, 1984). Based on this assumption, the study aims to identify and explain modifications in a planned strategy over time. Empirical findings in the study reveal different types of modifications and their relationship with different change outcomes. Different reasons for modifications are explored by drawing on a cognitive theoretical perspective.

It has been said that eighty to ninety percent of all strategies are never implemented (Walter Kietchel in Fortune Magazine, 1984). This estimation rests on a rather simplistic view of implementation as executing initial plans, where any deviations from initial plans are classified as failures. Clearly, in some cases, *not* following intentions could be positive, such as a sign of learning or attentiveness and flexibility, which ultimately could lead to better outcomes than outcomes based on initial intentions. In this thesis it is argued that partially implemented changes should not necessarily be classified as failures. On the contrary, *not* modifying a strategy during several years of implementation should perhaps more often be classified as an implementation failure. Not modifying a strategy during several years of implementation suggests that either nothing significant has happened in the organizations' surroundings during those years, which is highly unlikely in today's turbulent world, or worse, nobody in the organization has noticed.

Strategic change and implementation literature has tended to exaggerate the benefits of strictly sticking to previous (and perhaps outdated) decisions in change processes by emphasizing tightly controlled planned changes. Findings in this thesis indicate that tightly controlled change processes that emphasize sticking to the plan might lead to symbolic changes, where changes are not really made at lower levels in the organization. Modifications in the initially

planned strategy, on the other hand, often ensure a better fit between the formulated strategy and the actual changes within the organization.

In most organizations, many different change initiatives occur simultaneously. Here, a specific planned strategic change initiative was studied over time in the search for modifications, explanations for modifications, and effects of modifications. Due to the lack of in-depth studies on modifications, an exploratory design was chosen. Relevant literatures were probed for insights and explanations, but the study is largely phenomenon driven rather than theory driven.

Strategic change refers to large-scale changes that aim to change the competitiveness of the firm. The goal of strategic changes has to do with increasing performance. Some strategic changes do not affect the organization much. One example is an acquisition that requires little integration of work activities. Other types of strategic changes require a change in everyday work activities. These deep kinds of changes are often extremely challenging, since they require not only a change in the way employees perform work, but also a change in how they think about work and a change in attitudes towards work. The change initiative in this study was internally focused towards reengineering work processes and hence realizing substantial cost reductions.

Strategic changes can evolve from any level in the organization. In this study, changes that are planned from the top-levels in the organization are of interest. More and more organizations feel pressure to initiate change processes and top managers struggle to get their ideas turned into action. This is particularly difficult when the change is proactive, i.e. when there is no immediate crisis in the organization, but top managers sincerely believe they need to make changes to survive in the long run. When planned changes are proactive, it can be especially challenging to get commitment from employees, since there are few explicit signs of a need to change strategy. The boundaries of the study thus include planned, proactive, deep strategic changes that are initially formulated at the top of the organization.

The findings of this exploratory study include a typology of modifications, the major reasons for modifications, and three different change outcomes. The

findings can best be understood within a cognitive perspective. Sensemaking represents a cognitive perspective and it is particularly useful in explaining why modifications occur. The sensemaking perspective also creates the basis for the development of an integrating model. Sensemaking has to do with which cues we pick up and how we make sense of organizational context and action. This perspective, which is also based on assumptions of social construction of reality (Berger & Luckmann, 1967), directs attention to the dynamic features of strategic change outcomes. As people at different organizational levels make sense of the changes, modifications occur, which in turn lead to different change outcomes.

A cognitive perspective of strategic change has previously been used to explain how strategic issues are diagnosed (Dutton & Duncan 1987); to explore the relationship between changes in interpretive schemes and structural reorganization (Bartunek, 1984); to identify organizational mappers (Huff, 1990), and interpreters (Sims & Gioia, 1986); and to describe strategic change initiation (Gioia & Chittipeddi, 1991). Only recently has the cognitive perspective been applied specifically to implementation of strategic changes (Balogun, 2001, Isabella, 1990). This thesis contributes to the limited work on implementation issues within a cognitive perspective and it focuses on *consequences* of sensemaking processes in organizations.

This thesis furthermore contributes to strategic change research by emphasizing a dynamic view on planned changes. The study links strategic content to the implementation process, and describes the effects modifications in content have on change outcome. Change content, process, and outcome are thereby linked. Change outcomes that fall in an intermediate category, between change success and change failure, are introduced, as are different types of modifications. The typology of modifications facilitates identification of modifications in strategy, and the reasons for modifications make prediction of when modifications are likely to occur possible. Change outcomes can also be predicted based on the linkages that are presented between modifications and change outcomes.

Finally, the study contributes by suggesting a theoretical framework for understanding and studying implementation and change processes. The

sensemaking perspective not only provides a useful framework from which to explore reasons for modifications, but it can also be applied as a theoretical platform for understanding the whole implementation process.

The overall presentation of this study follows a chronological structure. The chronological presentation emphasizes the explorative and eclectic nature of the study, which began with a tentative research model based on selected literatures and ended with a research model based on additional literatures and one particular theoretical perspective – the sensemaking perspective. Findings are not presented chronologically. Instead the research questions structure presentation of the findings.

More specifically the thesis is organized as follows: chapter two, following this introduction, discusses the phenomenon – modifications in a planned strategy. A thorough presentation of the phenomenon is deemed as essential when the phenomenon, rather than theory, guides the study. The chapter includes definitions of key constructs and formulation of three research questions. In chapter three, relevant literatures are probed to shed light on the phenomenon of interest. Reviews of strategy research and selected implementation studies within public policy and innovation are summarized and critiqued. A tentative research model is presented followed by an introduction of the cognitive perspective. Chapter four presents the methodology and includes choice of design, research setting, descriptions of data collection and data analysis, as well as a discussion of methodological strengths and weaknesses. Chapters five, six, and seven combine description and analysis of data. In chapter five, modifications in the planned strategy are identified, presented, and analyzed. In chapter six, the major reason for modifications is introduced as multiple and diverging construed realities. The data are organized and presented with a focus on showing where there are discrepancies in construed realities. The sensemaking perspective creates the basis for chapter six since diverging construed realities are the result of sensemaking processes within the organization. The reasons for modifications (chapter six) are then linked with the actual identification of modifications (chapter five) in chapter seven. Propositions predicting when modifications are likely to occur are developed. In chapter eight, the findings from chapter five, six, and seven are pulled together into an integrating model. The thesis ends with a discussion in chapter

nine of contributions, limitations, and practical as well as theoretical implications of the findings.

2. The Phenomenon: Modifications in a Planned Strategy

This chapter discusses the phenomenon – modifications in planned strategies upon implementation – and defines some of the key constructs in the study. The purpose of the chapter is to provide a background for why this is an area considered worth studying, as well as to provide an understanding for the boundaries of the study.



In Norway, a decision is just the beginning of a debate. (Key actor in the implementation of BRA in Gullfaks ,Statoil)

As the above quote indicates, a decision is not always just the outcome of a debate, it can also trigger further debate. Most of us like to think that decisions are based on careful analysis of alternatives and consequences, and that further debate should be unnecessary once a decision has been reached. It is when a decision has been made however, that many people really become concerned about what the decision means for them, their work situation, and their organization (Piderit, 2000; Bareil & Savoie, 1999).

Modifications in plans frequently occur in organizations. In media, stories about how organizations change both ends and means over time can be found, especially when they show that an organization has blown its budgets and time limits, or failed to reach explicit goals. Sometimes the original strategy is cited as the source of the problem and as needy of revision. At other times managers explain that projects tend to “grow” over time and increase in scale and scope, which causes increased costs and requires longer time. Regardless of how the strategic plans change over time, these types of modifications are usually presented as negative and as exhibiting a lack of control.

Within strategy research, modifications in a planned strategy are increasingly being mentioned as *critical* and *positive* in strategy development and strategic change processes (Dawson, 1999; Van de Ven, 1995; Pettigrew & Whipp, 1993; Floyd & Wooldridge 1992; Reve & Grønhaug, 1991; Gioia & Chittipeddi, 1991; Dutton & Duncan 1987; Kanter, 1983). This can be illustrated by the following quotes:

"Blueprints and forecasts are important tools and should be provided as much and as frequently as possible. But they are only approximations and they may be modified dramatically as events unfold. A well-managed innovating organization clearly has plans, missions, strategies etc., but it also has a willingness to reconceptualize the details..." (Kanter, 1983, p.306)

"Those responsible for managing the change process [are required to] make continual assessments, repeated choices and multiple adjustments" (Pettigrew & Whipp, 1993, p.10)

"...there are likely to be number of unforeseen contingencies which may necessitate a modification of intended pathways. ...it is not uncommon for... the content of change to be redefined during the process of organizational adaptation" (Dawson, 1999, p.8 and p.13)

"The original abstract vision is likely to become more well-defined and undergo some modification (at least concerning espoused manifestations) of the vision or processes used to achieve it" (Gioia & Chittipeddi, 1991, p.434)

Despite this recognition of the importance of being flexible and emergent in relation to a planned strategy, much of the strategy research ignores this and treats a plan for strategic change as static and stable over time. Even within literature that takes a dynamic approach to strategy (such as strategic change literature and strategy development literature), there exists little knowledge on *how and why* modifications of a formulated strategy take place and the effects modifications have on the change outcome.

A focus on modifications in planned strategy requires a clarification of what is meant by modifications and a planned strategy. According to the American Heritage Dictionary, to modify means *to change in form or character or to alter*. In this thesis, modifications refer to any substantial changes or alterations in a planned strategy. While it remains difficult to prescribe a cut-off point for substantial versus non-substantial alterations, the general rule is that alterations that are likely to affect the final change outcome, and alterations that a majority of organizational members agree upon as important will be viewed as modifications. A decision to defer from implementing something included in original plans will therefore be viewed as a modification. A delay in getting a

new organizational structure in place will on the other hand not be treated as a modification, unless organizational members insist on its importance for the change outcome.

The planned strategy represents the content of strategy, also referred to as the formulated strategy. It describes the “what” of strategy. According to Hrebiniak & Joyce (1984), a planned strategy includes accepted definitions of strategic ends and means. Ends and means can be defined in the following way (Brews and Hunt, 1999, p. 891):

“Ends are the major, higher level purposes, mission, goals or objectives set by organizations, each of which significantly influences the overall direction and viability of the firm concerned.”

“Means are the patterns of action which marshal/allocate organizational resources into postures that, once implemented, increase the probability of attaining organizational ends.”

The lack of research on modifications in planned strategies can be attributed to several factors. The first and most obvious reason is that it is *simpler* to study strategy if a chosen strategy is assumed to be stable over time. While simplicity has its virtues, it does not always enhance the understanding of complex processes. It is argued in this thesis that to fully understand strategic change processes, and to appreciate the context in which managerial decisions and actions are made, complexity needs to be included and emphasized rather than reduced to a minimum.

The other reason there exists little research on modifications in planned strategies is tied to the *focus of existing strategy research*. Much of existing research within strategy has focused on the relationship between strategy content and performance. Content research explores how specific strategic decisions (such as a decision to merge, divest, or enter a new market) and broader economic structures (such as entry, exit, or mobility barriers) affect performance outcomes (Chakravarthy & Doz, 1992). Possible changes and modifications in a formulated strategy are simply not considered in this line of research.

A similar problem can be found within the strategy process research that studies the formulation phase. This research focuses on the strategy process, as opposed to strategy content. Examples include how strategic issues are identified and diagnosed (Dutton & Duncan, 1987), and interpretation processes in strategy formulation (Dutton & Abrahamson, 1989; Kiesler & Sproull, 1982; Walsh, 1995). However, like strategy content research, much of this research attempts to link a strategic decision directly to performance, without considering changes or modifications that might occur in the strategy over time and during implementation.

Implementation research should be in a better position to incorporate modifications since it deals with the phase following the formulation phase. Research on implementation remains fragmented, and much this research is prescriptive and lacking in terms of theoretical basis. Theoretically based studies on implementation will be reviewed in the next chapter.

There exists a stream of research within strategy that specifically focuses on the dynamic aspects of the strategy process, which recognizes that a formulated strategy is modified over time. This research is here referred to as “the emergent perspective”. However, as will be argued in the literature review, although it incorporates modifications over time, this research does not adequately explain how or why modifications occur because it focuses mainly on explaining how a strategy *without* clear intentions to begin with *emerges* over time in organizations. In its extreme, this school is the complete opposite of the content and formulation research discussed above, which only handles the initially formulated strategy.

Deliberate and planned strategic change processes require an initial plan. While a number of adjustments are likely to occur during formulation of the strategy, this study focuses on modifications that are made *after* the strategic decision has been made and an initial plan has been decided upon. This time period is usually recognized as the implementation process.

Strategy implementation is generally understood as putting a strategy into effect. Although there exist no widely agreed upon definition of implementation, most definitions include the elements of putting something

into effect and acting upon a decision or executing a decision. Wheelen & Hunger (1992) provide a useful and fairly general definition that captures these common features: “*implementation is... the process by which strategies and policies are put into action...*” (Wheelen & Hunger, 1992, p.236)

Figure 1 shows how this study begins with the planned strategy. The study thereby excludes the formulation process leading up to a planned strategy. The initially planned strategy is expected to change over time (t_1 , t_2 , t_3). The initially planned strategy is identical to what Mintzberg (1978) refers to as the intended strategy, while the strategy at time t_3 represents his realized strategy. Modifications in the planned strategy are expected to occur during the implementation process and they are expected to affect the relationship between planned strategy (strategic decision making) and outcome (firm performance).

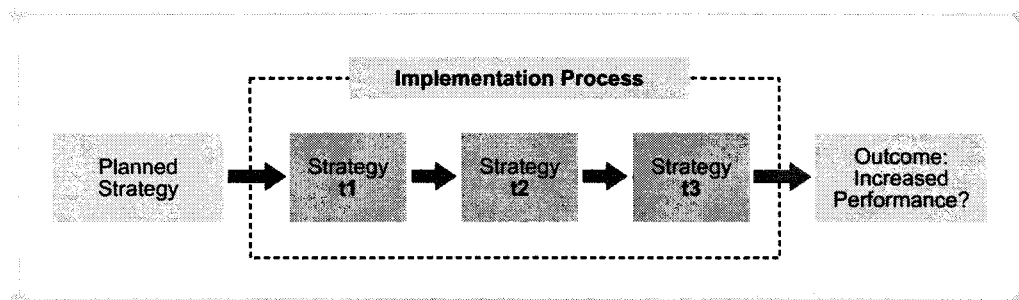


Figure 1: Illustration of Modifications in Strategy

The planned strategic change is conceptualized as an idea that travels through the organization over time. The initial ideas of change may originate from any level, but final decisions are made at the top of the organization. Upon implementation the planned strategy moves through the different levels in the organization (Falkenberg, 2002). As the strategy travels through the different organizational levels, it is expected to change.

In this study, the focus is on following the journey of one particular change initiative; identifying when major shifts occur in the strategy (compared to what was initially planned); explaining why shifts occur; and finally exploring how this affects the change outcome. Hence the fundamental question is *what happens to a strategy after the decision to pursue the strategy has been made?* More specifically, what happens to strategic content during the implementation

process? This research thus begins at the time a decision of a planned strategy has been made. While most strategic changes aim to improve firm performance, firm performance will not be measured here. Rather, change outcome refers to the realized strategy at any point in time. Change outcome has to do with measuring actual changes in the organization, and based on that, firm performance may be estimated, although not precisely assessed.

Specific research questions can now be framed in relation to the phenomenon of interest. The research questions in this study are:

- 1) How is a planned strategy modified over time?
- 2) Why do modifications occur?
- 3) How do modifications affect change outcome?

Few academic contributions exist which specifically focus on modifications in planned strategies during implementation. In the beginning of this chapter, several quotes illustrated the increasing attention modifications seem to be receiving among researchers. This suggests an emerging theoretical interest in the phenomenon. In particular, researchers who have conducted descriptive and longitudinal studies of strategic development or change processes (Burgelman & Sayles, 1986; Pettigrew, 1985; Burgelman, 1983; Mintzberg, 1978) have raised issues of how strategy is shaped and changed *over time* in strategy processes.

In addition, several researchers (Dawson, 1999; Pettigrew & Whipp, 1993; Gioia & Chittipeddi, 1991; Kanter, 1983) argue that being able to modify a planned strategy during a strategic change process is crucial. The capability to carry through the changes implied by a strategy, and if necessary transform the strategy through use has also been identified as a key intangible asset for managing change (Pettigrew & Whipp, 1993).

Despite this increasing interest and attention, little knowledge on how and why modifications occur has been accumulated. Due to the lack of existing research on modifications, the study will be explorative. It should nevertheless be possible to gain a better understanding of modifications in planned strategies and thus a better basis on which to conduct this study. Because of the

complexity of the phenomenon and indeed of the study, existing research contributes considerably by focusing the study on possible and plausible reasons for and effects of modifications. Literature on strategic change and development processes, particularly research on implementation processes, is therefore reviewed. Because of the lack of theoretical focus on the issue of modifications, and because of the sparse and fragmented body of literature on implementation, the literature review also includes other fields that have studied implementation processes.

Summary

This chapter discussed the phenomenon, modifications in a planned strategy, and described the background for focusing on it. The chapter also defined key constructs in this thesis.

Modifications were defined as any substantial changes to or alterations in a planned strategy. A planned strategy consists of ends (higher level purposes, mission, goals or objectives) and means (the patterns of action to attain ends) (Brews & Hunt, 1999). Modifications in a planned strategy are expected to take place in the implementation process, which was defined as the process by which strategies are put into action (Wheelen & Hunger, 1992).

In contrast to most strategy research, this study begins with the *outcome* of the strategy formulation process – *the planned strategy* – and examines modifications in planned strategies during implementation. The assumption that a planned strategy changes over time rests on Mintzberg's (1978) distinction between intended strategy (deliberate and planned) and realized strategy (implemented strategy). Following up on this distinction between intentions and realization, this thesis attempts to *describe and explain what actually happens* to the strategy as it moves from intentions to realization.

While most strategy research either ignores or fails to capture modifications that occur in planned strategy during implementation, a few researchers (Pettigrew & Whipp, 1993; Kanter, 1983; Dawson, 1999; Gioia & Chittipeddi, 1991) point to the importance of being able to handle modifications that occur in formulated strategy during a strategic change process. However, no studies

explicitly address how and why a planned strategy is modified over time and the effect modifications have on change outcome.

The lack of existing research on modifications calls for an explorative study. However, since modifications are expected to occur in the implementation process, and there exist considerable research on strategy implementation, this literature will be reviewed in search for leads on how and why modifications occur and possible effects of modifications. The next chapter presents the literature review and presents a tentative research model.

3. Literature Review and Research Model

This chapter reviews existing research on modifications and implementation processes. A tentative research model is presented based on the literature review. The discussion of the phenomenon in the previous chapter narrowed the focus in terms of relevant literature. It was argued that modifications in strategy occur in the implementation process. Since there is limited research dealing specifically with modifications in strategy, strategy implementation literature was found as the most appropriate stream of research for review. A thorough review of strategy implementation research and a review of selected contributions within public policy research and innovation research can be found in Stensaker (2000). In this chapter, these three streams of research are briefly summarized and critically evaluated in terms of their respective insights on implementation processes and contributions for understanding modifications.

A tentative research model is developed based on the literature review. The purpose of developing a *tentative* research model in an exploratory study is to draw on existing research as much as possible and to guide data collection. This is in accordance with Zaltman, Pinson, & Angelmar (1973) who argue that researchers rarely start off with an empty head, and even in exploratory studies researchers have hunches. In this study, the tentative model facilitated the early phases of data analysis, but as the analysis proceeded, additional literatures had to be introduced. The tentative nature of the model actually indicates that the model is expected to need further development based on empirical findings and, if necessary, additional literatures.

The data analysis indicated several limitations in the tentative research model. Modifications were particularly difficult to understand and explain based on existing *strategy research*. Rather than drawing on a number of fragmented contributions on implementation issues, a particular theoretical perspective on strategy implementation was therefore introduced. In explaining and exploring modifications, the cognitive perspective remedies some of the most serious shortcomings of the more traditional perspectives on implementation. A brief

introduction to the cognitive perspective and its underlying assumptions is included in this chapter, while a more detailed presentation of one particular stream of cognitive research - sensemaking – follows in chapter six, where reasons for modifications are discussed.

3.1 Strategy Research

Since this thesis explores modifications in strategy, and modifications are assumed to occur during implementation, the strategy implementation literature is a natural candidate for review. Strategy implementation quickly leads into the enormous bulk of strategic change research and implementation research needs to be placed within this context.

The literature on strategic change can be divided into strategy content research and strategy process research (Huff & Reger, 1987). Content research typically asks which strategy a firm should choose in order to increase firm performance while process research often focuses on the process of formulating a strategy, i.e. the time period prior to reaching a decision about strategic content. Less of the process research deals specifically with the implementation process, i.e. the time period *after* a decision has been reached concerning strategic content. Pure content studies, as well as strategy formulation studies, are generally not concerned with the implementation process. They focus on how decisions about strategy content are made and which alternative is chosen. Strategic decisions are therefore often measured directly against firm performance and implementation remains a black box, as it is assumed to follow decision-making in a rather uncomplicated and rational manner.

Implementation Process Studies

Since the purpose of this study is to explore modifications in a planned strategy over time, the relevant literature is that which focuses on the implementation process. Strategy process research focusing on the implementation phase typically examines different aspects of the implementation process. Rather than linking process variables to firm performance, implementation studies often measure the efficiency of the implementation process. Efficiency in terms of an implementation outcome focuses on attaining the desired results with minimum

expense or effort. Implementation process research has generally focused on specific aspects of the process such as information and communication (Cravens, 1998; Miniace & Falter, 1996); creating ownership or empowerment (Cravens, 1998; Floyd & Wooldridge, 1992; Guth & MacMillan, 1986; Hambrick & Cannella, 1989; Morgan & Piercy, 1998; Smith & Kofron, 1996;); participation or involvement (Elvekrok, 1998; Floyd & Wooldridge, 1992; Guth & Mac Millan, 1986; King & Rodriguez, 1981); commitment (Schwenk, 1986); motivation (Sandelands, 1994); attitude toward change (Lines, 2002; Munday & Young, 1993), speed of implementation (Beckhard & Harris, 1987; Beer, Eisenstat, & Spector, 1990; Eisenhardt, 1989a; Hinings & Greenwood, 1988; Lamont et al., 1994; Miller & Friesen, 1984; Tushman, Newman, & Romanelli, 1986); resource allocation (Bower, 1970; Northcraft & Wolf, 1984; Stonich, 1980); compensation schemes (Stonich, 1980); and performance measurement and control (Camillus & Grant, 1980; Cravens, 1998; Ginsberg, 1984; Moon & Fitzgerald, 1996; Reed & Buckley, 1988; Smith & Kofron, 1996).

These studies point to critical dimensions in the implementation process and as such they can be helpful for understanding modifications. However, the focus on specific variables, and attempts at isolating specific effects, means giving up some of the complexity inherent in organizational change processes. In addition, because the attention is limited to process issues, none of these studies discuss possible modifications in a strategy content over time.

In order to capture modifications in content, studies must not only focus on the implementation process but also include the formulated strategy (the strategy content). This requirement leads to an exclusion of a fair amount of strategy research that focuses *either* on process or content. Several researchers have argued that the traditional separation of content and process hampers development in the field of strategy (Dawson, 1999; Pettigrew & Whipp, 1991; Reger & Huff, 1993; Wilson, 1992). Strategy implementation research that includes both content and process can be divided into two main streams based on the focus and underlying theoretical assumptions. These two streams of research are labelled (1) the planning perspective and (2) the emergent perspective.

The Planning Perspective

Research within the planning perspective emphasizes strategy as planning and formal analysis. The seminal works of Ansoff (1994, 1991, and 1965) and Andrews (1971) have been central in this perspective. In terms of implementation issues, good and successful implementation processes, according to the planning perspective, rely on careful planning. Implementation problems can also be remedied by improved planning. While much of the strategy literature explicitly takes a rational-analytic planning perspective, much of the implementation literature *implicitly* suggest that strategic change and implementation to a great extent can be planned.

There exists a growing amount of research on implementation tactics (Bourgeois & Brodwin, 1984; Hart, 1992; Hrebiniak & Joyce, 1984; Hsiao & Ormerod, 1998; Huy, 1998; Kanter, 1983; Kim & Mauborgone, 1997; Mezias & Glynn, 1993; Nutt, 1989, 1986; Pfeffer, 1981; Waldersee & Griffiths, 1999). The underlying assumption in these studies holds that managers, by using different tactics depending on the content or context, can become more successful in implementing change. The studies on implementation tactics examine not only the tactics managers use to implement new strategies however, but also determinants of different tactics and the conditions under which different tactics are appropriate. The studies thereby link the implementation process to both content and context.

Based on implementation tactic studies, the following relationship between the strategy content and process can be found. The planned strategy (strategy content) affects the implementation process along three content dimensions (1) the substance, (2) the specificity, and (3) the degree of change embedded in the planned strategy. The implementation process can thus be expected to vary depending on *what* is changed, how *specifically* as opposed to generally *formulated* the strategy is, and the *size or depth* of the changes incurred by the strategy. The studies on tactics do not address how the implementation process affects content.

The Emergent Perspective

The other central stream of research, which incorporates both content and process, represents a more holistic view of strategic change processes. Within this perspective, content and process are seen as interdependent and affecting *each other over time* through continuous and intertwined processes of implementation and formulation. This differs from the implementation process research, which views formulation and implementation as two separate steps in a strategic change process. It is also different from research on implementation tactics because change is not merely an issue of getting people to do what the manager wants them to do. In the emergent perspective, change is seen as evolving from a combination of plans and emerging issues. Sometimes change evolves as a result of lower-level initiatives (Burgelman, 1983; Quinn, 1980), at other times change evolves without any clear initiatives or plans at all (Mintzberg, 1994, 1991, and 1978). According to this perspective strategy formulation (decision-making) continues throughout the change process and is just as likely to take place after implementation (action) as before. This dynamic approach to strategic change was found as the most promising and appropriate in terms of understanding how a planned strategy emerges over time (strategy formation) and why this occurs.

Research within the emergent perspective provides both theoretical and empirical evidence of a discrepancy between intended and realized strategy. Modifications in a planned strategy occurs as a result of process factors such as: (1) employees fail to understand the ends and means formulated in the intended strategy, (2) employees fail to agree or actively resist the intended strategy, or (3) management changes its mind regarding the ends and means (Mintzberg & Waters, 1985).

Contextual studies also report interesting findings concerning why modifications to formulated strategy can be found. Inner context, consisting of structure, culture, politics, and resources, affects both strategic content and the implementation process, as well as outer context, consisting of economic, social and political factors at the competitive, industry, national, or international level. Unfortunately research on contextual influence remains underdeveloped and empirical studies that explore how and when contextual features become salient are (with the exception of Pettigrew, 1985) lacking.

Research describing the existence of modifications can be found within the emergent perspective on strategy. The planning perspective on strategy and pure implementation research largely ignore any potential modifications in strategy. In general existing literature on implementation processes remains highly fragmented. Conceptualizations and definitions of implementation remain unclear and there exists no agreed upon or unifying theoretical basis for studying and understanding modifications or implementation processes.

In order to base this study on as much existing knowledge as possible about modifications during implementation processes, other fields of research focusing on implementation processes were probed as well. The next section contains a selective review of implementation of public policy and innovations. These additional literatures should provide a better platform on which to design the study.

3.2 Other Relevant Research

The previous section presented relevant research within the field of strategy, and it was deemed as insufficient for developing a useful research model on which to base this study. Therefore, this section probes literatures from other fields of research. In order to draw on other fields of research, however, they need to be relevant for strategic change processes. The implementation process has been identified as critical for understanding modifications in planned strategies. Additional relevant literatures therefore include research on other kinds of implementation processes, particularly contributions that resemble the emergent perspective on implementation. This was the perspective within strategy that was argued as the most promising and enlightening in terms of adding insight on modifications.

Research both within public policy and innovation has focused on implementation processes somewhat similar to strategy implementation processes. Public policy literature is relevant because there exists a long tradition for researching implementation within public policy. Furthermore, public policy implementations often imply large-scale changes, where a deliberate policy exists to begin with, which is similar to the deliberate strategic changes of interest here. Innovations, like revolutionary and large-

scale strategic change, represent something new to the organization. Revolutionary change is often defined as breaking with the past. Damanpour & Evan (1984) define innovations as “*responses to environmental change or means of bringing about change in an organization*” (p. 393). Revolutionary strategic changes can thus be viewed as innovations.

In order to contribute something to the strategy literature, additional literatures also need to be different. The public policy literature reviewed here is different from the strategy literature because it presents a different conceptualization of implementation. Implementation is seen as a separate phase, which involves continuous formulation activities. The innovation research of interest here is also different from the strategy research because it explores how innovation (or strategy in this case) goes through continuous development throughout the change process. It also reveals different characteristics in a change process depending on the timing, whether it is early or late in the change process.

Implementation of Public Policy

Public policy research is represented by Pressman & Wildavsky’s well-known book “Implementation: How great expectations in Washington were dashed in Oakland” (1984). Pressman & Wildavsky’s contribution to public policy research is particularly interesting since they, like this study, are preoccupied with understanding how and why strategies (or policies) change character over time in an implementation process. The book furthermore provides a general overview of research within public policy written by well-known and respected researchers. This thesis therefore draws on this carefully selected piece of public policy research to develop a deeper understanding of how the implementation process affects the original decision.

According to Pressman & Wildavsky (1984), modifications occur through negotiations and new agreements, often between new actors that were not involved in the initial formulation. This leads to delays i.e. adjustments of the schedule. Pressman & Wildavsky (1984) furthermore argue that disagreement over means is more common than disagreement on ends. These findings suggest both how and why modifications occur.

Concerning the second issue of *why* modifications occur, some new and interesting findings contributed to the development of a research model. Content and contextual variables included multiple and contradictory goals and changing circumstances. A new process variable, in addition to the involvement of many unconnected people, was identified as technical details about implementation. Technical details that could not be predicted at the time of formulation were found as a major force pulling for modifications in the planned strategy.

Adoption and Diffusion of Innovations

Innovation research includes a vast number of contributions, with one of the most prominent and cited innovations researcher being Rogers (1982) In this thesis however, innovation research is mainly represented by a research project called the Minnesota studies (MiRP), where Van de Ven, Angle, and Poole (1989) and a number of other researchers attempt to get beyond the “stages models” of innovation. They do so by viewing the innovation stages as *activities* and by assuming that *they do not occur in any particular sequence* over time. They, in other words, study the multiple and sometimes parallel progression of invention, development, diffusion, and adoption activities over time. These activities are similar to formulation and implementation activities.

Innovation research points out factors within content, process, and context as reasons for modifications. For example, different and perhaps unrelated components in content require a division of work and sometimes even different implementation processes. The innovation process was also found to be partially cumulative and thus path dependent, which suggests that the sequence in which changes are made could make a difference. Contextual factors lead to mistakes and setbacks and included unanticipated events and a lack of attention and resources. In addition, the innovation literature discussed conditions when modifications were *not* made but should have been made. Reasons for failure to modify an innovation were identified as learning disabilities and failure to share and similarly interpret information, as well as a time lag required in order to change the course of action. By turning this around, one could say that modifications occur through learning, sharing and interpretation of information, and by minimizing the time lag for action.

Public policy and innovation research add insight into how and why modifications occur during the implementation process. The main reason that these additional fields of research contribute in the development of a research model lies in their alternative conceptualizations of implementation. In the next section, the contributions and limitations of the different streams of literature are discussed in more detail.

3.3 A Critical Evaluation of Existing Research

This section consists of a critical evaluation of existing literature, with emphasis on the literature reviewed in the previous two sections. Strengths and weakness are pointed out in terms of how well the different literatures contribute in shedding light on and explaining modifications in strategy. A perspective for this study is developed based on the literature review and critique. The literature review consisted of two main parts: strategy literature and other literatures of relevance. The critical evaluation is divided in a similar manner. The main contributions to and limitations of the different bodies of literature are summarized in the table below and discussed further in the text.

Literature	Contributions	Limitations	
Strategy/ Strategic Change Research	Implementation Research	Highlights critical dimensions in the implementation process e.g. communication, creating ownership etc. Focuses on intentions and plans Insights on specific process issues often include organizational aspects and organizational behavior. e.g political processes, cognitive limitations.	Fragmented body of research. No unified definition of or theoretical perspective on implementation Studies process separately from content, which does not allow us to uncover modifications in content. Both inner and outer contextual factors are generally ignored.
	The Planning Perspective on Strategic Change	Focuses on how managers can realize intentions and plans by using different implementation tactics. Some contextual factors are included.	Strategy process and content are linked but only in a one- way relationship – how content affects the implementation process.
	The Emergent Perspective on Strategic Change	Focuses on linkages between content and process. Emergent features are emphasized (in contrast to planning perspective) Recognizes that means and ends are developed in the change process, not only prior to it.	Focuses too much on emergent features as opposed to planned and intended features. The emphasis on presenting an alternative view of how strategic and organizational change takes place limits in- depth exploration of modifications.
Other literatures	Public Policy Research	Implementation is conceptualized as separate but intertwined with formulation. Discusses why and how modifications occur.	Possible differences between implementation of public policy and strategy. The literature is only selectively reviewed Presents no explicit theoretical foundation for understanding modifications, although a political perspective seems dominant.
	Innovation Research	Implementation is both an activity and a process/ phase in a larger process. Presents details, characteristics, and patterns in innovation processes, which are relevant for understanding strategy implementation processes.	Possible differences between implementation of innovations and strategy. The literature is only selectively reviewed. Presents no explicit theoretical foundation for understanding modifications, although a learning perspective is evident.

Table 1: Contributions to and Limitations of the Literatures

Strategy Literature

While strategic change research represents a particularly relevant body of literature for the research questions posed here, much of the literature within this line of research does not explain modifications. Several reasons for this can be mentioned: (1) many of the studies fail to capture or indeed recognize that modifications can and do occur; (2) some of the studies are only able to

capture “negative” modifications; (3) many of the studies lack a dynamic approach and actually study strategic change in a static manner. Each of these reasons will be elaborated below.

The first problem – failing to recognize modifications – was found in studies that focused on the intended strategy and linked strategic choice directly to performance. These studies could not capture any decisions or actions taking place after the intended strategy had been formulated. Examples include studies on strategy content and formulation process studies. Both can be argued as more or less rooted in the rational/analytical perspective, which conceptualizes implementation as a simple step following formulation.

Research on the implementation process was argued as more likely to shed light on the phenomenon of interest. Implementation process studies occasionally capture modifications but tend to treat modifications as negative, which was identified as a second problem. In relation to this study, a negative view of modifications represents a problem since it promotes “sticking” to the plan and does not consider possible positive implications of modifications. Large-scale change processes have been characterized as taking between three and seven years (Nadler and Tushman, 1989). Considering the long time frame, and the simultaneous changes in many related dimensions (context and process) that occur during this time, modifications in planned strategies can be expected to be both positive and negative.

In addition, much of the strategy research focuses either on content or process and as such it illustrates the third problem – a failure to cover the dynamic relationship between content and process. Most of the implementation process research falls in this category, although a growing number of studies have explored how content affects the process. The reciprocal effect, how process affects content, has only been hinted at by researchers (Dawson, 1999; Gioia and Chittipeddi, 1991; Kanter, 1983; Pettigrew and Whipp, 1993) but has not been studied in-depth.

The most promising and appropriate stream of literature within strategic change in terms of adding insight to modifications was research within the emergent perspective. The emergent perspective refers to research that views

content and process as affecting *each other over time* through continuous processes of formulation and implementation. Contrary to the rational-analytical planning perspective, formulation thereby continues throughout the change process, and formulation (decision-making) is just as likely to take place during, or even after, implementation (action).

The emergent perspective contributes both to a better understanding of modifications and to a broader view of the implementation process. It does so by introducing a temporal and dynamic aspect in terms of variations in a strategy at different points in time. The intended strategy represents the initially formulated (and planned) strategy, while the realized strategy represents the strategy that is actually effectuated. Due to emergent features and to the fact that some dimensions of the intended strategy fail to become realized, the realized strategy differs from the intended strategy. The questions of which emergent features cause modifications and how this affects outcome still remain however.

While the emergent perspective seems theoretically promising, empirical findings that explain modifications in a planned strategy over time remain sparse. The literature review showed that, in strategic change processes where initial intentions actually exist, modifications to formulated strategy occurred if (a) employees failed to understand the formulated strategy, (b) employees resisted the ends and/or means in the strategy, or (c) new ends and means were introduced from the top of the organization. In order to understand and explain modifications however, it is necessary to probe why employees fail to understand the strategy, and why employees resist changes. What is it they fail to understand or resist and why and when do top managers change the original plan?

At least three reasons can be mentioned that explain why modifications in planned strategies are inadequately treated in the emergent perspective: (1) the preoccupation with explaining realized strategy, (2) the focus on the source of strategic change and development, and (3) the treatment of formulation and implementation as inseparable

The focus on explaining realized strategy is particularly evident in Mintzberg (1978) and Mintzberg & Waters' (1985) research. Although they introduce the distinction between intended and realized strategy, their main concern consists of describing empirically observed strategy processes that differ dramatically from the normative rational-analytical planning model of strategy processes. Mintzberg provides in-depth descriptions of how strategies evolve even when no initial intention exists. While this research has been of tremendous value as a counter-balance for the more normative rational analytical perspective on strategic change, the intended strategy and the deliberate features of the change process receive insufficient attention and the emergent perspective in and of it self becomes less useful in studies of planned change processes.

The descriptive strategy development studies (Mintzberg, 1978; Burgelman, 1983; Burgelman & Sayles, 1986) are not only concerned with explaining how a strategy evolves without initial intentions, but also attempt to explain how change is triggered and who initiates change. Because changes in organizations often are a result of unplanned actions and after-rationalizations it becomes meaningless to separate formulation and implementation. Mintzberg therefore introduces the construct strategy formation. Viewing formulation and implementation as inseparable makes it difficult, if not impossible, to detect any changes in original plans.

Evidently then, none of the existing studies within strategy specifically examine modifications in a planned strategy over time. Research within the planning perspective remains overly concerned with refining and improving plans such as preparing and choosing the right implementation tactic. Research within the emergent perspective points out the discrepancy between intended and realized strategy and provides descriptive accounts of how change evolves in organizations. But this stream of research is overly concerned with the emergent features and the limited effect plans have on actual changes.

Other Literatures of Relevance

The other literatures, public policy implementation and innovation research, were much more selectively reviewed than the strategy literature. Only research resembling or including an emergent perspective of change processes

was reviewed. Both the public policy and the innovation literature reviewed here recognized modifications in plans as common, necessary and essential.

Public policy research (represented by Pressman & Wildavsky, 1984) explained the deliberate and emergent features in policy implementation by drawing on both the rational/analytical perspective (which focuses on the intended strategy) and on the emergent perspective (which focuses mostly on the realized strategy). This literature thereby better incorporated both the intended strategy and the realized strategy and provided evidence of and explanations for why a discrepancy between the two could be found.

The main contribution of this literature consists of the idea that formulation and implementation are interdependent yet separate. In the study by Pressman & Wildavsky, a completely uncontroversial decision was studied based on the argument that if modifications occur in a decision in which everyone originally agrees, then modifications likely occur in all implementation processes. This view on the relationship between formulation and implementation makes it possible to empirically identify modifications in plans occurring during implementation and to explore reasons for modifications.

The innovation literature strengthened the view of how complex and ill-defined change processes appear. It also showed that complex change processes can rarely be managed by any single managerial tactic or theory. A clearer picture of how implementation processes evolve, from a seemingly unified decision into a myriad of processes involving countless of different actors, shed further light on how and why modifications take place.

The innovation literature made at least four main contributions in increasing the understanding of modifications. First it introduced the distinction between activities and phases. Instead of focusing on distinct phases, the research team searched for patterns in activities and indeed they found that innovations were continuously developed during implementation. Secondly, the cumulative process was emphasized, indicating path dependency and the importance of the sequence of events, actions, and decisions. Thirdly, patterns of regularity in innovation processes were revealed based on innovation studies. These patterns of regularity may to a certain extent be transferable to strategy implementation

processes. For instance, findings indicate that the innovation process became more structured and stabilized over time, which suggests that modifications are likely to occur more frequently early in the process. Finally, this literature stressed the need for reinvention and learning in the adoption process. According to Van de Ven et al. (1989), modifications and adaptations in an innovation should be welcomed as they make the innovation fit the local situation and make the innovation more understandable and appropriate for the organizational participants. Failure to learn and failure to share and similarly interpret information was found to hamper modifications, which in turn resulted in major crisis.

Innovation researchers view modifications as a product of the adaptation between the innovation and the organization. In this sense, modifications are connected with how different organizational levels learn about an innovation. Modifications are said to enhance learning because the innovation is adapted to the local situation. In other words, the local situation (for example a business unit) adapts the innovation to that particular unit and this creates both a better understanding for the innovation and a sense of ownership.

3.4 A Tentative Research Model

The literature review showed that the rational-analytic planning perspective on strategy treated implementation as a rather simple and unproblematic step following formulation in a change process. Implementation and formulation were referred to as processes or *phases* in a change process. The emergent perspective on the other hand, talked about implementation and formulation as taking place continuously rather than stepwise. It seems that in the emergent perspective, implementation and formulation were referred to as *activities* that occur interchangeably. The research on innovation processes introduced this distinction between phases and activities.

Whether implementation and formulation are viewed as activities or as processes becomes crucial for understanding modifications. In the implementation process, one might argue that both implementation activities and formulation activities take place. The attempt here is to distinguish formulation activities that take place in the implementation phase from those

that take place in the formulation phase. Formulations that take place *after* an initial decision has been made should ideally be framed and restricted by the initial decision and consist of specific details or clarifications. If formulation or decision-making during implementation significantly alters the initial strategy then a *modification* in the planned strategy has occurred.

Modifications can be the result of decision-making or continued formulation, but this requires the modification to be a consciously made decision. All three literatures reviewed in this thesis suggest that after-rationalization occurs, which means that actions are made rational in retrospect and decisions might come after action. Modifications may therefore be the result of decisions or actions (implementation activities).

Implementation activities are actions aimed at executing decisions. Examples include introducing a new incentive scheme, firing/replacing people, and employing new routines such as new forms of leadership. Implementation activities represent a modification if they significantly alter the initial strategy. This distinction between formulation activities, and modifications through decisions or implementation activities makes it possible to work much more precisely with continuous and intertwining formulation and implementation *activities* during the implementation *phase*.

Planned change processes present an excellent opportunity to study the implementation *phase* separately from formulation. In less deliberate change processes this would be extremely difficult. Because of the fragmented and insufficient knowledge on implementation, there is a real need to focus on the implementation phase in a strategic change process as opposed to focusing on the initial formulation phase or indeed on the whole change process. There are several other reasons for this. First, the formulation phase and the implementation phase represent different situations with different challenges. In the formulation phase, the focus is on sensing the need for change, identifying alternatives, generating ideas, and sharing knowledge in order to reach a decision. In the implementation phase, the main focus is on acting on the decision and making decisions that facilitate acting on the strategic decision. The second reason for focusing only on the implementation phase is that modifications in a planned strategy can by definition only be made *after*

the initial decision itself has been made. Third, organizations commonly refer to the implementation phase as distinct from the decision-making formulation phase, and many organizations are particularly preoccupied with challenges that are specific for executing decisions in contrast to challenges coupled with making decisions.

In this study of a planned change process it is therefore argued that it may be fruitful to conceptually separate implementation from formulation. In planned change initiatives, the implementation process *should* be distinguished from the formulation process, and it can and should be studied separately. Implementation activities are distinguished from formulation activities, and formulation activities that take place during the implementation phase are called modifications if they significantly alter the original intentions. This is because focusing on the implementation process and separation of formulation activities that occur prior to implementation versus formulation that occurs during implementation *allows* us to recognize modifications in a planned strategy and make it possible to explore how and why modifications are made.

A more precise conceptualization of the implementation process, which is different from both the planning perspective and the emergent perspective, will create the basis for this thesis. Implementation is a multidimensional construct and in this thesis it is recognized that implementation refers to (1) a phase in the strategic change process (2) an activity that can occur at any time during a change process (3) a process consisting of both implementation activities and reformulation activities.

A Tentative Research Model

Based on the literature review and the perspective presented above, a tentative research model can be developed. The tentative research model should illustrate the research questions and guide data collection. The research questions were:

- 1) How is a planned strategy modified over time?
- 2) Why do modifications occur?
- 3) How do modifications affect change outcome?

These questions, and hypotheses about potential answers, can be modeled in the following way:

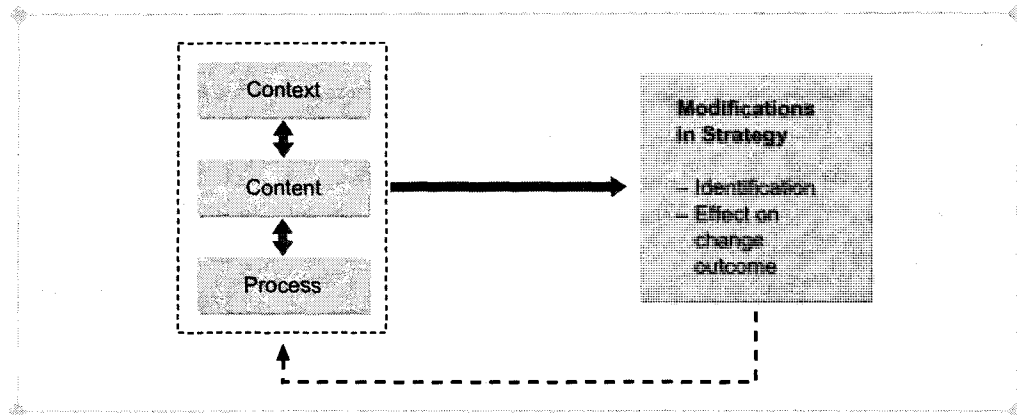


Figure 2: A Tentative Research Model

The model shows that modifications in strategy are expected to occur over time. This is in accordance with the initial illustration of the phenomenon (see figure 1) where strategy content changes during the implementation process. As the research model above illustrates, organizational context, change content, and the implementation process represent the major reasons for modifications. More specific variables within each of these categories are presented below, but the model depicts general categories in line with an exploratory approach, and allows for further development based on data. The arrows between these three factors point to their interrelatedness. Context, content, and process are furthermore expected to change over time. Hence the planned strategy changes over time through modifications. Including time and the variations in the variables over time emphasizes the *dynamic aspects* of the change process. Modifications made early in the change process are thus not only expected to affect later modifications, but also the context and process over time.

The dependent variable – modifications in strategy – consists of two parts. First an identification of modifications, which is related to research question one, reveals whether or not modifications actually do occur as well as *what* is being modified. Is it the ends or means; what kind of elements “fall out” of the strategy; and what type of elements emerge and become a part of the strategy in the implementation process; and finally are there different types of modifications that occur in the implementation process? Because the literature

review gave few clues in terms of these questions, this part of the model will be developed further based on data. The second part of the dependent variable has to do with the third research question concerning effects of modifications. It includes an evaluation or estimation of the effect modifications have on change outcome. For instance whether or not a specific modification is perceived as positive or negative for the change outcome. This too remains a rather exploratory question.

The independent variables deal with research question two - explaining why modifications occur. Through the literature review, a number of likely reasons for modifications appeared. These reasons are not specified in the model, since the model needs to be open for other findings from the data. However, these reasons describe the logic behind the model and they will be guiding data collection. Reasons for modifications that were uncovered through the literature review are therefore integrated and summarized below.

Content

Strategy content refers to the planned or formulated strategy, and consists of the ends and means of a change initiative. In strategy implementation research, the planned strategy was found to affect the implementation process through several dimensions. The substance (Dawson, 1999; Pettigrew, 1987; Waldersee & Griffiths, 1999), the specificity (Brews & Hunt, 1999; Huy, 1998; Kruijswijk & Haines, 1989; Pettigrew, 1987), and the degree of change incorporated in content (Hrebiniak & Joyce 1984; Dawson, 1999) represent dimensions of content that might be linked to the implementation process, particularly to the managerial style or tactic employed for implementation.

The public policy literature furthermore uncovered the frequency of vague, multiple, inconsistent, conflicting, and even hidden goals in policy content. (Pressman & Wildavsky, 1984) Multiple, conflicting, and inconsistent goals relate to the substance of the content, while vague or hidden goals refer to the specificity of the content. These features were found to affect not only the implementation process, but also the planned strategy (content) over time.

Based on this, one might expect that modifications are more likely if the planned strategy contains elements that contradict current practices or values.

Furthermore, if the content is very specific in terms of details, then modifications are more likely because very specified plans might not fit or be well received in all parts of the organization. If the content, on the other hand, is very general, then the plans are also likely to be changed compared with the underlying and original intentions. General and abstract ideas must at one time or another be worked out into further detail, and in that process anything might be fitted into a very general strategy, although it might be quite different from the original underlying ideas. Finally, the greater the degree of change, the more likely are modifications, since greater change can be expected to be more controversial.

Implementation Process

Several process variables were found to affect the planned strategy over time. They include a failure to understand the formulated strategy, resistance to comply with the formulated strategy, and managers changing their minds and introducing new ends and means (Mintzberg and Waters, 1985).

The selective sampling of public policy research revealed two major ways in which process affects content over time, and the first one captures much of Mintzberg & Waters' (1985) findings. The first process dimension was the involvement of many unconnected people. This leads to many different interpretations of content (understanding of content) as well as many different wishes and priorities (resistance to content). Due to this, renegotiations become necessary and original agreements and original content were modified (Pressman & Wildavsky, 1984).

The second process variable that affected content was working out the technical details about the implementation process. This was found as a major cause of delay and modifications to content, especially because these details could not have been worked out in advance. Information was not always available at that time, and sometimes the technical details did not even exist as issues prior to implementation (Pressman & Wildavsky, 1984).

Research on innovation processes also introduced two process variables. The first, a need to divide work, describes why many unconnected people become involved. The second variable however, has to do with the partially cumulative

process, and it brings in the question of path dependency (Bryson & Roering, 1989; Van de Ven et al. 1989) and hence it implicitly suggests that sequencing matters. The innovation research also brought in factors that explain why modifications in a planned strategy do *not* occur when they perhaps should. *Learning disabilities* as well as *failure to share information* or *failure to interpret information similarly* were identified as reasons why modifications in plans did *not* take place (Van de Ven, 1995).

This means that if many unconnected people are involved in the implementation process, then modifications are more likely. The more people involved, the greater the number of different interpretations, wishes and priorities. Furthermore, because there is an element of path dependency, decisions made early in the implementation process are expected to frame later decisions. Major modifications are therefore likely to be found early in the implementation process.

Context

Context means the circumstances in which a particular event occurs. In line with Pettigrew's (1985) research, context is separated into inner context and outer context. Inner context includes the structure (Dawson, 1999; Pettigrew & Whipp 1991), culture (Dawson, 1999; Pettigrew & Whipp, 1991;), politics (Dawson, 1999; Kanter, 1983; Huy, 1999; Pettigrew & Whipp, 1991), and resources (Dawson, 1999; Huy, 1998; Nutt, 1986; Hrebiniak & Joyce, 1984). Outer context, on the other hand, consists of economic, social, and political factors at the competitive, industry, national, or even international level (Dawson, 1999; Pettigrew & Whipp 1991). Any changes in inner or outer context are potential triggers for modifications in strategy.

The tentative research model presented here was based on an eclectic approach to existing literature. The literature was probed for clues on modifications as a phenomenon. While the literature could be categorized based on thematic focus and underlying assumptions, and a model tying the different clues together could be developed, the perspective and model represent no specific theoretical basis for explanation. In the next section, a theoretical perspective is introduced.

The cognitive perspective captures many of the arguments within the tentative research model, but it takes them one step further by tying descriptions and findings to an established theoretical foundation. Before the cognitive perspective is introduced it is important to point out that the choice of theoretical basis in this thesis was made after data collection and preliminary analysis. The cognitive perspective was chosen among several other theoretical alternatives (see the methodology chapter for further elaboration) because it provided the best fit with the data. In retrospect it is clear that the cognitive view also incorporates many of the ideas within the emergent perspective on strategic change, the public policy literature, and the findings from innovation research, although none of these literatures refer specifically to cognitive theories and the tentative research model was not developed based on a cognitive perspective. The revised theoretical model, which presents reasons for and outcomes of modifications, was developed based on the sensemaking perspective, which is within the cognitive tradition.

3.5 A Cognitive Perspective on Modifications

The cognitive perspective is well established within strategy research. An abundance of strategic issues, particularly focusing on initiation of strategic change, have been researched from a cognitive perspective. Most of the cognitive strategy researchers focus on early stages of the change process and study how sensemaking and cognition is important in order to understand decisions made early in the change process. For example, Bartunek (1984) links interpretive schemes with organizational change (restructuring). Gioia & Chittipeddi (1991) describe how managers make sense and give sense in initiating change, and Dutton & Duncan (1987) study how managers identify problems or challenges through strategic issue diagnosing.

Lately, a cognitive perspective has been used to understand strategy implementation as well. Isabella (1990) studied evolving interpretations as change unfolds. While Isabella focused on explaining how managers collectively construe events and interpretations over time, this thesis will use a cognitive perspective to identify construed realities across organizational levels and across time. The focus is on probing the *consequences* of different interpretations rather than the *causes* of different interpretations. Hence, the

cognitive perspective (more specifically the sensemaking perspective) will be applied in order to understand the implementation process, and particularly to explain why modifications occur.

The cognitive perspective draws on cognitive psychology. In strategy research, cognition has to do with what goes on in the heads of managers and particularly how managerial cognition shapes organizational decision-making and action. The cognitive perspective has been employed at individual, group, organization and industry level. (For a thorough review of strategy research within the cognitive perspective see for example Walsh, 1995).

The cognitive perspective views managers as information workers that spend their time absorbing, processing, and disseminating information about issues, opportunities and problems. The information worlds are extremely complex, ambiguous, and munificent (Walsh, 1995). One major assumption within the cognitive perspective is that individuals have limited information processing capacity (Simon, 1955). Due to the complexity of information worlds and individuals' limited information processing capacity, people develop highly abstract knowledge structures, called schemas or interpretive schemes. Schemas or knowledge structures are "*mental templates that individuals impose on an information environment to give it form and meaning*" (Walsh, 1995, pg. 281). These knowledge structures consist of simplified representations of the world and they serve as maps by which individuals can filter information and understand e.g. new situations or new information.

Knowledge structures facilitate information processing by providing maps for understanding and interpretation. However, knowledge structures can also hamper information processing by restricting attention to information that already exists within the knowledge structures. Existing knowledge structures have been found to affect which information receives attention (Nisbett & Ross, 1980). Existing knowledge structures also limit the range of alternative solutions to issues that have been identified (Cyert & March, 1963; Dutton, Fahey, & Narayanan, 1983). According to Barr, Stimpert, & Huff (1992), the problem with mental models (or knowledge structures) is that they may become inaccurate. They argue that mental maps will always be incomplete due to cognitive limitations.

Cognition provides the underlying logic for managerial action (Walsh, 1995). Early work on cognition and decision-making revealed that individuals, due to limited cognitive capacity, often base their decisions on what they perceive as rational motives. Simon (1957) and March & Simon (1958) introduced decision-making theories based on bounded rationality. Tversky & Kahnemann (1974) followed up this work by presenting several judgmental biases, or heuristics, which are based on cognitive limitations. One example is the tendency to remember extreme observations better than more mediocre observations. Another example is the tendency to seek confirming rather than disconfirming information, and thereby strengthening existing knowledge structures. These limitations and judgmental biases also apply at organizational and industry levels. Grønhaug & Falkenberg (1989) found evidence of similar problems at industry level. In an empirical study, they found that industry-level perceptions were not widely shared.

When cognition is employed at group or organizational level, the social aspects of how knowledge structures are formed and used become increasingly important. Social cognition has to do with how cognitive processes influence social behavior and how people make sense of other people and themselves (Fiske & Taylor, 1991). According to this view, knowledge structures are mental structures that not only represent knowledge about a concept, but they also refer to people's expectations about themselves, other people, the situations they encounter, and the effects of these expectations. (Fiske & Taylor, 1991). Members of a society (such as an organization) make meaning out of their activities through interpretation.

One stream of literature within social cognition assumes that reality is socially constructed. Berger and Luckmann (1967) introduced the term social construction of reality. Social construction of reality means that there exists no objective reality. Reality only exists in our heads as a construction of our beliefs and actions. In other words, strategies and organizations are products of the beliefs and interpretations of members of a society. According to this view, people invent and sustain the meanings of terms and then use these meanings to understand the world. Hatch (1997) argues that reality is often believed to be

objective because it is objectified, which means that reality is socially constructed in a way that makes it seem objective.

Social construction of reality can perhaps best be described through an example. Imagine having seen a movie with a group of friends. During the movie everyone is silent and each person understands and interprets the movie based on his or her knowledge structures (based on past experience and so on). After the movie however, the group of friends begin to discuss the plot. In this kind of situation it is not unlikely that the discussion uncovers different interpretations of what actually happened in the movie. Through the discussion however, individuals can affect each other's knowledge structures, by introducing alternative interpretations. A movie may not be reality, but the same applies for situations like business meetings, lectures, negotiations, and other organizational activities. When the message, the main ideas, or the purpose is discussed, it is likely that different perceptions of reality are uncovered and that individuals affect each other's interpretations.

Enactment theory (Weick, 1979) overlaps with social construction of reality as it also focuses on the subjective dimension of organizational realities. Enactment theory not only assumes that reality is socially constructed but emphasizes the active construction of reality by managers and organizational members. According to enactment theory, individuals actively construct, rearrange, single out, and demolish features of their surroundings (Hatch, 1997 pg.41). Sensemaking draws on social cognition, social construction of reality and on enactment theory. The sensemaking perspective will be presented more thoroughly in chapter six.

The cognitive perspective employed here thus highlights not only the cognitive limitations of organizational members, but also the active and social processes by which organizational members shape their environment. People talk about strategy, organizations, and organizational environment as if they exist objectively, just waiting to be discovered correctly. Social cognition and theories based on social construction of reality, such as the sensemaking perspective, emphasize the subjective nature of strategy and organizations. According to these perspectives, there is a good chance that an organization's strategy will be presented differently depending on whom you ask, whether it

is the top manager in the organization, a lower level employee, or someone from a competing organization.

The social cognition view that assumes a social construction of reality is quite different from the rational view of strategy. According to the rational view, which continues to dominate much of the strategy literature, the organization is *"like a tool in the hands of top managers"* and strategy is perceived as *"a process of designing the organization to achieve a predefined purpose"* (Hatch, 1997 pg.115). The cognitive perspective on implementation as employed here is also different from the emergent perspective on strategy, where the organization is viewed as an adaptive system in which *"strategy emerges from the organization's struggle to survive"* (Hatch, 1997 pg. 115). According to the cognitive perspective as presented here, the organization and its members much more actively take part in the creation of their environment. Through interpretations of the environment and what goes on in the organization, organizational members actually contribute in shaping their environment and organization.

The cognitive perspective is clearly different from the theoretical assumptions underlying the reviewed literature on implementation. The introduction of cognitive theory represents an attempt at tying different research contributions together. While existing research on implementation processes remains fragmented and often without an explicit theoretical foundation, the cognitive perspective represents a well-established theoretical foundation. The theoretical perspective did not guide the development of the research model, but it appeared as a fruitful theoretical basis to explain empirical findings later in the research process. The cognitive perspective not only provides coherent and logical explanations for the findings, but also remedies some of the weaknesses of existing implementation research by providing a link between different explanations for modifications that can be found in the different streams of research.

3.6 Summary

This chapter first identified and briefly reviewed relevant research on implementation processes. The review included research on strategic change

processes, particularly contributions that focused on implementation while including both the strategy content and process. Three streams of research provided insights into modifications in planned strategies. They were (1) implementation research, (2) the planning perspective on strategy, and (3) the emergent perspective on strategy. In general the strategy and implementation research was found as fragmented and dominated by assumptions that rarely opened up for capturing and explaining modifications in planned strategies. There tended to be either a focus on planned features of strategy or on emergent features, and few contributions combined the two.

Additional research on implementation processes was therefore consulted. Implementation of public policy and implementation of innovations provided relevant and similar settings, but with additional insights in terms of how implementation processes could be conceptualized and how modifications might be explained.

A research perspective was developed drawing on strategy, public policy, and innovation research. A tentative research model was presented. The research model was developed in a deductive manner based on a literature review for the purpose of guiding data collection. The tentative nature of the research model is connected with the goal of this study, which consists of developing a theoretical model of modifications. A final model will thus represent the output of this study and it will be the result of a combining existing research with inductive findings.

The three research questions were depicted in the tentative research model in the following way. The dependent variable – modifications – included both an identification of modifications (research question one) and an estimation of the effects modifications have on change outcome (research question three). The independent variables – content, context, and process – will guide data collection in the search for reasons for modifications (research question two).

The literature review provided a good overview of possible reasons for modifications. A set of key variables within the categories content, process, and context were therefore presented. Important variables within content consisted of substance, specificity, and degree of change. Process variables

were the number of unconnected people involved, technical details of implementation, and path dependency/sequencing. Finally, the contextual dimensions included structural, cultural, political, and resource dimensions reflecting inner context, and economic, social and political dimensions reflecting outer context.

While rather specific predictions could be made concerning the reasons for modifications, the type of modifications and effects of modifications remained highly exploratory, and rather than formulating hypothesis at this stage, the reasons for modifications were kept open for possible and probable adjustments in a final research model.

The cognitive perspective was introduced at the end of the chapter. This is because although the cognitive perspective did not contribute in development of the tentative research model, it is central in the development of the final model, which is presented as a theory explaining modifications. The cognitive perspective focuses on managers as information processors. Information worlds are extremely complex, and managers, like all individuals, have limited cognitive capacity. Therefore they form and use knowledge structures to guide information processing, decision-making and action. Knowledge structures (called construed realities) among groups will be central in explaining why modifications occur. The sensemaking perspective, which is one particular stream within the cognitive perspective, will be presented in chapter six, where data are analyzed based on sensemaking.

4. Methodology

In this chapter methodological issues are discussed. These include the research design, research setting, data collection, and data analysis. The choice of research design is presented through a discussion of design requirements and alternatives. Data collection methods include different sources of data and details about how the data were collected. In the section on data analysis, the different steps in the analysis process are presented along with the specific analysis methods, such as narrative strategy, visual mapping strategy, temporal bracketing strategy and alternate templates strategy. Strengths and weaknesses of the chosen methodology conclude the chapter, before a final summary highlights the most important methodological issues.

4.1 Research Design

The design of a scientific study depends on the research questions and on how much existing theory there is within the domain of interest. The research questions in this thesis concern how and why a formulated strategy is modified over time, and the effect modifications had on change outcome. The study aims to develop an understanding for how a planned strategy changes upon implementation. These research questions pose several requirements to the research design, which limit suitable design alternatives.

Criteria for Design

Based on the research questions, this study requires (a) an identification of the initially planned strategy, (b) an identification of modifications in the strategy over time, (c) an exploration of major reasons for modifications, and (d) an evaluation of modifications' effect on change outcome. Furthermore, because modifications are assumed to occur in the implementation process, the study also requires (e) an implementation process that can be studied. Each of these requirements will be discussed below.

In planned strategic change and development processes, intentions and initial formulations can usually be found in a document or strategic plan. The plan commonly includes strategic goals, such as ends and means, although the degree of detail on this type of information varies considerably. A written

document of this type, in combination with verbal information to clarify or extend the written information, makes it possible to identify the initially planned strategy. The research design therefore needs to incorporate both secondary data, such as written documents, and primary data, such as interviews and observations.

In addition, modifications must be possible to identify over time. Initial intentions can more easily be identified than modifications because of the negative connotation that often accompanies changes in plans. Organizations and organizational members might be hesitant in admitting that modifications take place. Because modifications in strategy are sensitive issues and most likely difficult to detect, revealing modifications requires a close relationship with the organization(s) studied. Revealing modifications requires both in-depth understanding and knowledge about the organization, as well as trust from organizational members. It furthermore requires the possibility to observe actions and events since not all modifications are likely to be referred to as modifications, and modifications are not necessarily documented in formulated plans.

Studying modifications requires incorporation of the temporal aspect into the design. Data has to be collected over time. This can be done in several ways, either by collecting data at certain time intervals (time-series design) or by collecting data continuously over a longer time period (longitudinal design).

In order to capture major reasons for modifications, events and actions occurring *prior* to modifications need to be traced. Possible methods include asking for information retrospectively and/or collecting real-time information where data is reviewed after the identification of a modification. Due to the risk of after-rationalization and fading or skewed memory, real-time data is usually preferred over retrospective data. Real-time data ensures that the reasons for modifications actually occur prior to the modification.

The literature review suggested that reasons for modifications might vary over time. Reasons for modifications early in the process may differ from reasons later in the process. This brings us back to the temporal aspect. While modifications can be identified either through a time-series design or a

longitudinal study, an in-depth understanding of why modifications occur which incorporates possible variations in reasons over time requires a longitudinal study. Furthermore, only by collecting data continuously over a longer time period is it possible to ensure that the reasons for modifications are included in the data set. Collecting data at specific points without continuity risks a focus on certain issues were stressed at a particular point in time, while in a longer time perspective these issues may have carried less weight and importance. A longitudinal design provides a better understanding of the critical and reoccurring issues that affect actions, meanings, and decision-making.

Data from the time period *after* a modification provides information on effects of modifications. As mentioned in the literature review, there were few clues as to which effects modifications have on change outcome. The research design therefore needs to allow for a fairly open-ended approach that makes it possible to capture relevant effects based on the data.

Access to an organization remains a fundamental requirement for study an implementation process. The implementation process has to involve a *planned strategic change*, with explicit ends and means, which can be studied *over time*. It has been argued throughout this thesis that an implementation process must be studied in its natural setting in order to capture the complexity and the contextual features that affect the process. Access to real-time organizational processes in their natural setting represents the greatest challenge for this type of research.

To sum up, based on the research questions, the design needs to: incorporate both primary and secondary data (in this study collected as verbal and written information); allow for a close relationship with the organization being studied to ensure that sensitive information can be revealed; allow for collection of data over time - preferably through a longitudinal process study; include real-time data; and provide in-depth information from an actual implementation process.

Choice of Design

It has been argued above that the phenomenon of interest requires detailed and in-depth information. A qualitative study was therefore found most suitable. Quantitative studies are more appropriate for studying well-structured problems based on well-developed and advanced research and theory. The lack of existing theory and a well-structured problem also restricts designs such as laboratory experiments and surveys. Since there exists limited knowledge about modifications, an exploratory study was more suitable in this case.

Having ruled out designs such as experiments and surveys, several alternatives remain within the category of qualitative, exploratory, and longitudinal studies. These include grounded theory, ethnography, and case study designs. While all three were equally suited for building theory and for exploring in-depth sensitive and complex issues, only case studies allow extensive reliance on existing research (Meyer, 1996). As argued previously, the large but fragmented body of research on strategic change and implementation processes provides a better understanding on which to base the study of modifications. Existing research also directs this study toward already established critical dimensions in the complex process.

Case studies can, according to Eisenhardt (1989b), be useful when little is known about a phenomenon, when current perspectives seem inadequate because they have little empirical substantiation, or when they conflict with each other or common sense. Furthermore, case studies are appropriate when there is a need for a new perspective, in the early stages of research on a topic, or to provide freshness in perspective to an already researched topic.

Research that specifically refers to modifications remains very limited. This was the rationale behind choosing an exploratory design. Since implementation research was found as rather fragmented and as exhibiting a surprisingly static view, a case study approach can *provide a new perspective* and develop existing research. Grounded theory and ethnography can equally well provide explanations of the phenomenon, but these designs are more likely to contribute to the already fragmented and dispersed body of literature by adding new concepts and new terms to describe the phenomenon. This study aims to bring together existing knowledge about modifications in strategy, and to draw

on this knowledge, while at the same time remain open for new insights that could bring research on modifications and implementation further and pull existing contributions together. A case study approach was therefore chosen.

4.2 Research Setting

The research program, “BRA Følgeprogram”, funds this dissertation, and it provides access to one of Norway’s largest companies - Statoil. BRA represents a planned strategic change as it is based on a corporate decision to implement a new IT system and organizational changes. This decision was made in 1996. Clear intentions existed in terms of both strategic ends and means. At the time the decision was made, the change initiative could be classified as a typical business process reengineering (BPR) initiative.

Three key features characterize BPR changes from other types of organizational and strategic changes (Knights & Willmott, 2000):

- 1) A focus on moving from functional division to process organization.
- 2) Entrepreneurialism. A central assumption holds that everyone in the organization is driven by a desire to provide the best and most profitable customer service.
- 3) Information technology. Organizational change is enabled by IT changes and ideas include empowerment, team-working etc.

In Statoil, the change involved and affected the whole corporation and it was expected to bring enormous performance improvements. The fundamental argument behind BRA was to improve the corporation’s competitive situation by cutting administrative costs dramatically and subsequently increasing firm performance.

In this chapter, the corporation Statoil is first briefly presented. A presentation of BRA, with a focus on strategic ends and means, follows. The presentation should answer what type of changes the BRA change initiative involved and how the corporation planned to achieve the changes.

The Corporation: Statoil

The integrated oil and gas corporation, Statoil ASA, operates in twenty-five countries with over sixteen thousand employees. The production of oil and natural gas on the Norwegian shelf creates the basis of Statoil's business. Over the last ten to twenty years however, Statoil has increased its international activities substantially due to market growth and the goal of being among the leading players in the industry.

Statoil was established in 1972. Statoil's first oil field was found in the North Sea two years later. Then followed twenty-five years of discovery of new oil fields both nationally and internationally, development of the organization, and continuous growth. During these years there was no real need to be cost conscious. Growth was substantial and the focus was naturally on managing the growth situation. In the late nineties however, the growth had reached a peak and focus was turned towards cost control. International competitors showed cost levels far below Statoil. In June 2001, Statoil's ownership situation changed as parts of the corporation went public on the stock market.

On Statoil's webpages the following ambitions for the corporation are listed:

- Being the first choice among customers
- Being a leading gas supplier in Europe
- Being the most efficient oil and gas operator
- Being a driver in terms of applying new technology
- Value creation through productivity and growth.

Statoil's organization chart was changed during the course of this study. When the study began the corporation had a corporate management team consisting of the CEO and six top managers. In addition to the corporate staff were fifteen business areas. These business areas were later reduced to the following six:

- 1) UPN Exploration and Production in Norway
- 2) INT International Exploration and Production
- 3) Natural Gas
- 4) Processing and Marketing
- 5) Technology
- 6) Corporate services and corporate center

The cases included in this study came from UPN and Processing and Marketing. UPN is the operator of ten oil and gas fields. The business area is divided into three main geographical areas which each include several business units:

Halten/Nordland: Åsgard, Norne, Heidrun

Troll/Sleipner: Troll Gas, Sleipner, Veslefrikk, Huldra, Glitne

Tampen: Statfjord, Gullfaks

Within Processing and Marketing lie all supply, refining, distribution and sale of oil and petroleum products. Two refineries belong in this business area. The Norwegian refinery and business unit, Mongstad, will be presented further at the end of this section.

The Planned Strategy: BRA

In the fall of 1996, the corporate leadership in Statoil decided to invest in the information system SAP R/3 as a corporate administrative platform for Statoil. The decision was based on an internal assessment and it involved major organizational changes along with the IT changes.

The change program BRA was launched as a performance improvement project, which aimed to develop Better, Faster Administrative (Bedre Raskere Administrasjon - BRA) procedures enabled through a new IT-system. BRA's goal was to make the administrative procedures in Statoil more efficient and standardized and thereby reduce redundant work and encourage and facilitate a focus on value-creating activities. The ambitions of BRA were high, officially stated as a 50% reduction in administrative costs. Potential savings were calculated at 1,4 to 1,8 billion NOK per year and most of this was within procurements (expected savings within procurements of 1,2 billion NOK). Furthermore, 600-900 employees would be transferred to more value-creating work.

Different presentations of BRA focused on different aspects of the changes. Common for most information about BRA was the focus on standardization, simplification, and horizontal coordination. Changes expected through the

BRA program included changing the organization of work from functional orientation to process orientation by introducing the following:

- A holistic perspective
- A focus on task
- Elimination of duplication of work
- Decentralized decision making and increased authority at lower levels
- Empowerment through requiring employees to actively seek information
- New leadership roles. Leadership roles change from focus on control to support and motivational functions
- A new IT-system (SAP)

According to a presentation of Statoil's BRA program at NHH (1997), BRA would result in a more purposeful workday for employees by bringing a new organization; a new IT system; simpler and more standardized data and reporting routines; multiple skills; new skills; decisions at lower levels; a learning organization; more time for value-creating activities; and new forms of cooperation. In short, BRA was presented as a great opportunity for employees to increase their skills and become better prepared to meet future challenges.

In the initial phases of the change initiative, Statoil's previous organization was often characterized as a collection of parallel silos, where employees strived to do their best within their organizational boundaries, but where coordination and standardization across business units and functions could be improved dramatically. The new concept through BRA was illustrated as a house with a common ground, based on coordination and similar solutions.

The idea was to abandon traditional functional division and move towards process organization. Process organization was defined as a way to view internal organization. Instead of viewing an organization as a set of different functions, such as purchasing, the new idea was to view the organization as a set of work processes. Procurement was often mentioned as an example of a process. Procurement means to attain material for a task, for example maintenance of an offshore installation. The procurement process is not limited to merely purchasing the material, but means to follow the whole process from ordering material to completing the maintenance job. The process approach

was presented as a holistic and interconnected approach to organization, where the interface between different tasks would become as efficient as possible. This would secure optimal use of resources. One important goal in process organization was to make the processes self-steered or self-managed by transferring the necessary authority to the operating levels, and by eliminating unnecessary control functions.

The process organization would be based on *networks* where people with the same functional tasks cooperate (such as engineers, sales people etc.) and *integrated teams*, where people with different disciplinary and functional backgrounds cooperate (such as an operations team on a platform consisting of engineers, maintenance people and business people).

Information technology facilitated both standardization and interconnection of processes. Identical computer tools, routines, procedures, constructs, and codes were necessary to achieve standardized administrative processes in the different units of the organization. An enterprise resource planning (ERP) system – SAP - made it possible to simplify registration and transmission of information since the information would then be registered one time and subsequently could be used by all of the following stages of the process.

SAP has become increasingly more popular on a global basis. In the petroleum industry, SAP now represents the industry standard. Once implemented, SAP would replace many of the existing systems in Statoil. SAP stands for Systems - Applications - Products. SAP version R/3 is an Enterprise Resource Planning (ERP) system especially developed to support processes. Enterprise systems are software packages that allow integration of all information flowing through an organization. SAP can be used as a common administrative platform and it allows for integration across traditional system boundaries. Data from one division (for example stock) can be collected directly or be transferred to other system (such as accounting, maintenance, logistics). Routine work processes can be automated and it is no longer necessary to register the same data more than one time.

BRA in other words consisted of both an IT-project and an organization development project, and as the table of benefits shows, most of the benefits were expected to come from the organizational changes.

Process	How	Benefits in Million NOK	Benefits in Heads per year
Procurement	Automation	250-300	100-150
Sales & Logistics	Common warehouse Standardization Better utilization of capacity	500-550	10-20
Operations and Maintenance	Integrated teams Better information Status/condition-based maintenance	290-439	290-430
External Accounting	Standardization and simplification	40-50	40-50
Steering, budget and plan	New governance model Increased coordination between budget, plan and accounting.	70-100	70-100
Finance	Automation Coordination Internationalization	100-250	50-60
HRM	Register hours and travel Standardization Better steering of competence	50-60	50-60
IS/IT	Reduction in number of systems Standardized system	60-100	40-70
SUM	QUANTIFIED IMPROVEMENTS	1400-1800	600-900

Table 2: Benefit Potential

The Implementation Process

The change initiative was organized as a project. A corporate BRA project (called the BRA Program) was first established to work on developing the content of change further and planning the implementation process. The corporate BRA project involved a large number of consultants and they worked from corporate headquarters for one year mainly on designing change content and directing the implementation process. In 1998, the number of people involved in the BRA Program counted 175.

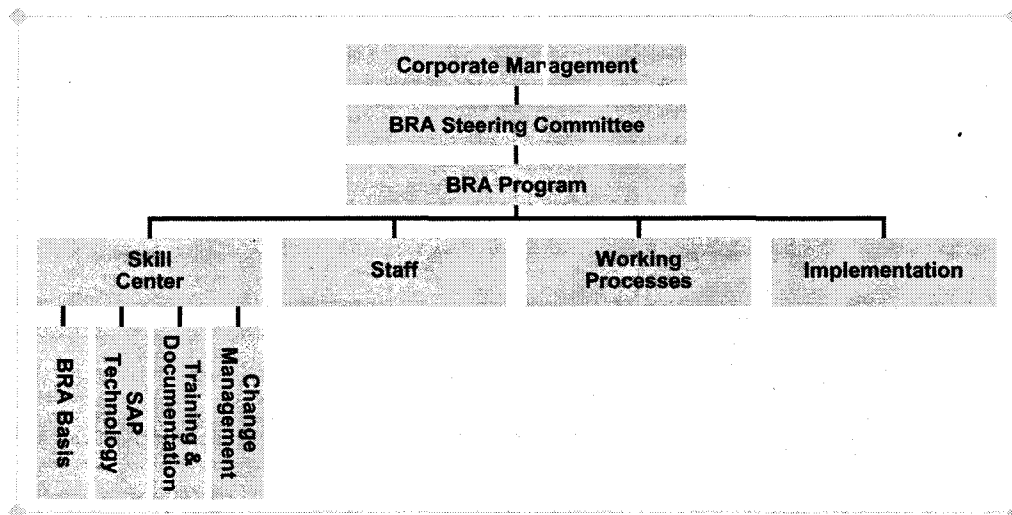


Figure 3: Organization of the BRA Program

The BRA Program was organized directly below corporate management and it was lead by a Steering Committee. Tasks were divided into the BRA Skill Center, BRA Staff, BRA Working Processes and BRA Implementation. Within BRA Skill Center, the main ideas were worked out through what was called BRA Basis. The Skill Center also included SAP Technical, Training and Documentation, and Change Management. Within the BRA Implementation section, details about how implementation and local implementation teams would run were decided.

A number of questions concerning how to implement the changes were dealt with. The timing, sequencing, and tempo of changes were decided and plotted in an implementation plan (appendix B and C). As the plan shows, BRA was planned implemented worldwide in the corporation within a time frame of four years. The implementation would occur subsequently in business unit by business unit in a roll-out fashion. While the BRA Program held responsibility for implementation, the responsibility for change and realization of benefits was placed with the line management.

The BRA Guide was developed by the change management group to guide implementation in the respective business unit. The BRA Guide was not a method, but a framework for implementation and it provided methods, deliveries, tools, techniques, tips and examples that could be helpful for initiation, implementation and completion of local implementation projects.

The BRA guide targeted all people who held an active role in the implementation, such as the implementation team and the line management. The BRA guide was under continuous development until early 1998.

A separate database for memos (called working papers) with standard formulas to make reporting standardized was also established. The purpose of both the BRA guide and the database was to standardize implementation in the different business units and create a simple and structured tool for the implementation project team, as well as a structure for experience transfer. The experiences from implementation would then lie in the working papers and could later be collected in a “Best Practice” database.

The Cases

Case A

The first case in this study is Mongstad, a refinery within the Processing and Marketing division. The refinery was established in 1975 as a result of district politics. Multiple owners existed at that time. By 1989, the refinery was purely Statoil owned and it then employed 750 people. Mongstad was among the first to implement BRA. Only the refinery in Denmark, which was the BRA pilot implementation site, preceded Mongstad.

Case B

The second case is an offshore installation within the Troll/Sleipner area of UPN. The unit was established in the early 1990s based on ideas of modern organization. The organization was flat with multiple competencies and few divisions and with an onshore “shadow” organization responsible for everything that could be done onshore. A lean and multi-functional work force could therefore be kept offshore. Approximately 340 employees work in Sleipner. Sleipner was in the middle in terms of the implementation plan. Some of the other UPN units had already implemented BRA, but there were still several to go.

Case C

The third case, Gullfaks, is another offshore installation within UPN, but this time within the Tampen geographical area. The field is old and complex and

includes three large concrete production platforms, Gullfaks A, Gullfaks B, and Gullfaks C. The three platforms began production respectively 1986, 1988, and 1989. Unlike the modern organization in Sleipner, the “old” platform and organization in Gullfaks demand many functions and specialists. Approximately 850 employees work at Gullfaks. Gullfaks was among the last business units to implement BRA. Only one business unit began implementation after Gullfaks.

Limiting the sample to one organization reduces the complexity of the study somewhat. Although each division had traditionally been autonomous with different historical and contextual features, keeping within one organization secures many similar factors across the business units as well. Governance systems, incentive systems, and corporate culture represent some factors that were identical across the cases. There had also been recent attempts at increasing corporate identity rather than emphasizing business unit belonging through “We in Statoil” (Vi-i-Statoil). The same formulated strategy (BRA) was studied in different but related settings. This represented a unique opportunity to examine modifications in strategy over time. Modifications occurring within in one business unit could thus be captured. Modifications at corporate level over time could also be revealed however. Corporate level modifications were expected to affect several business units.

4.3 Data Collection

This section deals with how data was collected. The section on research design revealed a demand for primary as well as secondary data, and real-time as well as retrospective data, but there are also many other issues concerning data collection that need to be addressed. The different sources of data are presented first in this chapter, followed by a more detailed description of how data were gathered.

Data were collected in three ways:

- 1) Interviews
- 2) Observations
- 3) Archival data

Two surveys were conducted as well during the course of the study. One was an evaluation performed for business unit C, and the other survey targeted ten upstream business units with the aim of assessing the degree by which they had implemented the changes within BRA. The surveys have not been included in the data set for this study, but provide additional background information similar to other types of archival data.

Primary Data

Interviews. The most important source of information was personal interviews. While archival data might indicate when modifications had taken place, only personal recollections and interpretations could reveal why modifications were made. The interviews also indicated that a number of different accounts of the change content and process existed within the organization. These different interpretations did not appear in archival data and were difficult to observe in meetings, where consensus was often a goal.

The interviews were semi-structured and based on the tentative research model. At the same time the questions were open-ended and allowed for discovering new issues, which could serve to develop the research model further (see appendix C for a typical example of an interview guide). While the main issues in the interview guide remained the same, the exploratory research design opens up for adjustments in the process. As issues and relationships became clearer, it was thereby possible to adjust the interviews accordingly. Each interview lasted from 60-90 minutes and with a few exceptions where the respondents objected, all interviews were tape-recorded.

Interviewees at different levels of the organization were targeted. Initially this was to ensure that any findings were not based on data coming from «one side» only. As it turned out, the different views that appeared through this multi-level focus became a major point in the findings from the study. The corporate level and the business unit level represent the two levels of analysis. Most of the data were collected within the business units, as this was the *main* level of analysis. Within the business unit level, respondents were divided into top management, middle management and employees. Top managers included all members of the management team such as Human Resource Manager, Platform Managers, and Operations Manager. Line leaders were defined as middle managers.

Observations in the form of participation in meetings and workshops also provided rich data. They served as important supplementary data and revealed other types of information compared with interviews. Information included how people related to one another, power relationships, informal coalitions, moods, and so on. Initially the goal was to refrain from taking part in discussions in meetings and workshops. It soon became clear however, that organizational members expected those who were present to participate. With time it also became clear that through limited participation, more and richer data became available. While being conscious of the risks of affecting the process, and avoiding input directly related to the research questions of this study, limited and carefully selected participation was therefore seen as beneficial.

Secondary Data

Archival data represents a good way to gain background information about the organization being studied. In addition it can serve to double-check other information. In the BRA change project, several databases were used to document progress and experiences made during implementation. These databases were probed regularly, although the business units only relied on corporate databases to varying degrees. Written material from headquarters mainly consisted of descriptions of the strategy and rationale behind it (the content of BRA) and plans for the implementation process. The most relevant documents from the business units consisted of Organization Development (OD) Plans, Action Plans, BRA Plans (Communication Strategy, Training etc.) and Evaluations.

	Inter-views	Survey	Observ-ations	Archival Data	Timing
Corporate level	6		7	10	Jan. 1998 –Dec. 2001
Business unit A	26		22	11	Contact established fall 1998
Top managers, key actors Middle managers and employees	9 17				Intensive Data collection from Jan. 1999 – Sept 1999 Follow-up interviews until Dec. 2001
Business unit B	38		5	12	Contact established early spring 2000
Top managers, key actors Middle managers and employees	12 26				Intensive Data Collection from May. 2000 – Dec. 2000 Follow-up interviews until Dec. 2001
Business unit C	14		5	10	Contact established early spring 2000.
Top managers, key actors Middle managers and employees	11 3	95			Intensive Data Collection from Jan.2001 – May 2001 Follow-up interviews until Jan. 2002
TOTAL	84	95	39	43	

Table 3: Sources of Data

Timing

The table above shows the sources, levels and timing of data collection. The number of interviews indicates how many interviews were conducted at corporate level and within each business unit. Some key actors were interviewed more than once (particularly at corporate level), but the number of interviewees correlates highly with the number of interviews conducted. Number of observations refers to points of observations. The majority of the observations took place during meetings within the BRA Project (at corporate level) or within the business units. The number of archival data refers to the number of documents (hard-copy or electronic copies) that were probed and found useful for this study.

Most of the interviews and observations provided real time data, but some of the questions and discussions naturally had to do with past events as well. The intensive data collection periods within each business unit took place a few months after the official implementation date. It was therefore necessary to supplement documents about the period prior to implementation with verbal accounts. Archival information was also a combination of real-time and

retrospective data. While some documents provided historical accounts and background information, others described the process as it was evolving. This combination of real-time data and retrospective data was fruitful. Most studies of processes are retrospective and conducted after the outcome is known. Explanations and recollections are then usually colored by the outcome. Van de Ven (1993) posits that real-time studies of strategic change processes are best because they unfold in their natural field setting. Kanter's (1983) description of organizational change as emerging constructions of reality, including revisions of the past, also suggests problems with purely retrospective studies.

At the corporate level, the contact was mainly with the Corporate BRA Project. A close relationship was established with the manager of what later became the Change Management Group (ELT/EST). Interviews at this level were often informal and combined with meetings and workshops. The contact subsisted during the whole study - that is four years.

At the business unit level, the local (meaning within the business unit) implementation project was contacted first. Initial meetings with the local implementation project/leader provided background information and relevant documentation. Our primary contact person in the business unit was usually the implementation leader or a person in a similar position such as the improvement group leader. The implementation leader and the human resource manager then typically cooperated to provide a list of interviewees from different levels in the business unit and within different positions and disciplines. The CEO and the implementation leader in each business unit were interviewed in all cases, and sometimes on several occasions. All interviews were conducted at the respondents' work place, and interviews offshore were carefully scheduled so as to not interfere with the important coffee and lunch breaks. While offshore, we were also invited to circulate during coffee breaks and talk informally with employees.

All of the data were collected together with another researcher. Data collection was conducted so as to ensure that both of our (highly related) research questions were covered. Interviews were typically scheduled parallel. This meant that one day of interviews offshore resulted in 12-16 interviews.

Criteria for choice of cases

Case studies can consist of one or multiple cases. A common reason for choosing multiple cases is because this leads to greater possibilities for generalization (Leonard-Barton, 1990). This is certainly true for a large number of cases, but if the question is one, two or three cases, generalization to a larger population remains difficult. Several researchers have argued however, that carefully designed case studies can increase generalizability based on replication logic similar to experiment designs (Andersen, 1997; Yin, 1994). This study's primary aim is not to generalize findings to a larger population. In this study, multiple cases provided a useful foundation for comparison and created possibilities of learning about the phenomenon during the research process.

In case studies, there is also the choice of what constitutes a case. Organizations are often used as cases, but critical events such as a modification can also be studied as a case. Using each modification as a case might increase the number of cases and hence contribute to a greater level of generalizability. In this study, business units within one organization represent the cases. This is natural since the business unit is where implementation takes place and where modifications are most likely found. At the same time however, it is important to monitor and keep track of what is happening at corporate level. Once the implementation process has been traced and modifications are identified, it is more relevant to use each modification as a case. In a sense this is done in the data analysis when different types of modifications are developed.

In choosing which cases to study, several dimensions can serve as selection criteria. Randomization is not always a goal in case studies. Eisenhardt (1989b) states that although cases may be chosen randomly, random selection is neither necessary nor even preferable. Due to the limited number of cases that can be studied simultaneously in a longitudinal study, samples providing extreme situations and polar types will be useful for replicating or extending theory (Pettigrew, 1990). Diverse sampling can also contribute to enhancing the generalizability of the findings (Gersick, 1988). It was decided that three business units would be studied. In order to capture the longitudinal dimension,

at least at a corporate level, the cases would need to cover different time periods.

Several researchers argue that the larger and more diverse an entity, the more difficult it is to effectuate and manage change (Davenport, 1993; Nadler & Tushman, 1989)). The first case was selected because of its size and complexity. The business unit had over 700 employees and a relatively long history, which meant that routines and attitudes toward work were well established. In the preliminary analysis of the first case it became clear that upstream business units (offshore) were more important in a corporate connection. The selection of a second case was therefore limited to the upstream business units and implementation sites within the “medium” time period. Again, a relatively large unit was sought out with the help of the Corporate BRA Group. The third case was opportunistically selected. While working on the second case it became clear that large modifications were occurring in the third case. We therefore worked actively to gain access to the third case. Again this was a large, upstream business unit, but unlike the second case, which was a young and modern organization, this unit was older and more complex.

It is important to point out that gaining access remains a key concern, regardless of the criteria for sampling. Sometimes gaining access requires a trade-off in terms of giving something back to the organization. In our case, we became more involved than initially planned, and agreed to perform some evaluations in trade for interviews and process information. This involvement in the business units provided us with invaluable information and observations, which could not have been attained by simply entering the organization to observe meetings or to interview organizational members.

The sample was limited to one corporation and this reduces the complexity somewhat. Although each business unit traditionally had been rather autonomous with different historical and contextual features, choosing cases within the same corporation secures several similar factors. Governance systems, incentive systems, and corporate culture are some of the factors that will not affect the results of this study, since they are identical across the cases. Limiting the cases to one corporation also means that implementation of the

same strategy, BRA, in different settings will be studied. This represents a unique opportunity to examine modifications in strategy over time, not only within the business units but also modifications that reach the corporate level and affect other business units as well.

4.4 Data Analysis

All data analysis has to do with classification and data reduction. Many methods to analyze qualitative data remain rather informal. There is a growing interest in developing and prescribing new ways to analyze qualitative data, and several qualitative researchers have provided thorough and rigid methods for qualitative data analysis (Denzin & Lincoln, 2000 and 1998; Langley, 1999; Miles & Huberman, 1994; Pettigrew, 1997 and 1992). In this section, the steps in the data analysis in this study are presented along with the methods used to analyze data.

The findings presented in this thesis are the result of employing a sensemaking perspective. The attempt is to report on the findings in a logical and orderly fashion structured by the research questions. The data analysis was far from orderly and logical however. In presenting the methods used to analyze data, the attempt is to clarify the steps from raw data to findings. This presentation is therefore more true to the actual research process than the presentation of findings in subsequent chapters. As the description below will show, the analysis was rather messy, switching between largely inductive approaches and consulting existing theory. The goal here is to describe the analysis process in a way that makes it possible to follow and if necessary replicate the analysis. The presentation is divided into three overarching types of analysis: preliminary analysis, within-case analysis, and across-case analysis.

Although data collection was guided by a theoretically deduced model and early data analysis focused on key variables in the model, the analysis was very much an inductive process. The theoretical framework was never forced on the data. Although the tentative model focused the process, analysis was kept open to what the data were “saying”. Interpretation and understanding of what the data are “saying” requires sensitivity and creativity, and hence this type of inductive analysis takes place in the context of discovery.

Prior to analysis, all data were transformed by the researcher into electronic format and entered into a database. Many of the documents, such as Organization Development Plans, and evaluations were already in an electronic format. Documents that were originally hardcopies were probed and relevant information was selectively transformed into electronic format. Interviews were transcribed verbatim within a few days of the interview, as were handwritten records from meetings and workshops. The electronic format simplified coding in the software program NUD* IST.

NUD*IST is a non-numerical computer software which allows the researcher to hierarchically structure vast amounts of qualitative data. The database builds on two systems, one for storing and organizing all documents, and one for indexing and coding. The document system keeps track of all documents and text files while the index system organizes coding and keeps track of the way coding hierarchy. Once an index system has been built up, it is possible to change it, search it, and make reports based on it.

Preliminary Analysis During Data Collection

Data were collected over a time-period of four years. Some preliminary analyses were deemed necessary to ensure that the most pertinent issues at that time were not skewed or forgotten at a later time.

After the intensive data collection in each business unit a report was written. The report focused on critical issues in the respective business unit approximately six months after implementation. Table of contents from each of the three reports are enclosed in the appendix (see appendix D). While the research questions guided interviews, findings were reported by focusing on capturing the essence of what was going on in the business units.

Electronic data were coded in NUD*IST, not based on prior categories, but rather based on what we interpreted as the main issues. The reports were presented for the business units and we received feedback on factual matters and on our conclusions. The feedback provided verification from the units being studied and some facts were corrected based on this feedback.

Conclusions were sometimes modified, but never changed. The reports were later used as evidence for how we had interpreted the situation at that time.

Within-Case Analysis

With the vast amount of data that qualitative research often involves, it becomes important to find an appropriate structure to be able to begin to analyze the data.

The within-case analysis began with establishing a chronology. Visual mapping in the form of process flow charts (Langley, 1999) and simple time lines (Eisenhardt, 1989b) were drawn up. According to Langley (1999), visual mapping provides an intermediary step between raw data and a more abstract conceptualization.

Once the chronology was in place, coding began. Since a tentative model had been developed to guide data collection, it was natural to use this model in the data analysis as well. All electronic data were coded in NUD*IST based on criteria established in the tentative model. During coding, several new categories evolved and these were included in the coding guidelines as they evolved. Lists of coding criteria from three different points in time can be found in appendix E. Introducing new categories meant that data often had to be recoded several times and the coding criteria had to be updated.

It became clear through the first coding that there was too much material and the data had to be categorized further. Temporal bracketing was therefore introduced. The data were divided into three distinct phases, a preparatory phase, the local implementation phase, and a training and evaluation phase. These phases were based on how the change processes in the business units were organized. All units had divided their work into these phases, although they differed somewhat in length of time and the type of work they involved. The three phases were superimposed on the data as they were written up in the within-case analysis.

In writing up the data, a narrative strategy was employed (Czarniawska, 2001). This method for analysis involves construction of a detailed story from raw data. According to Langley (1999) this is almost always a step in the analysis,

either as a data organization device, a validation tool, or an analytical element. The narrative strategy serves to make sense of a process through stories, meanings and mechanisms. In this study, the narrative strategy was not merely story-telling as recapturing the process, but story-telling focusing on certain critical issues, such as level of involvement, the specificity of the strategy and so on. The story was built upon the theoretically deduced framework, but as mentioned, it also included some new categories. The within-case analysis provided a step in the analysis consisting of an analytical description of the implementation process. It was analytical because it was steered by a theoretically deduced framework. This framework was not a theoretical perspective however, and it merely organized and focused the description of the change content, context and process.

Some new categories (central themes) evolved through the within-case analysis, e.g. intended changes versus actual changes, reactions to the change process and reactions to the change content, the use of evaluations and performance measurement, and perceptions of excessive change (see Stensaker, Meyer, Falkenberg, and Haueng, 2001 on excessive change). More importantly however, it became clear that the preliminary model was *not* emphasizing what was perceived as the critical reasons for modifications.

The result of the within-case analysis was approximately fifty pages of analytical descriptions about the implementation process in each of the three cases. Tables summarizing the findings from the within-case analysis can be found in appendix F.

The set of key variables in the tentative model, explaining why modifications were expected to occur, had been helpful in data collection and in structuring the narration in the beginning stages of data analysis. It focused the interviews and organized the data. However, the primary within-case analysis showed clear discrepancies in how different organizational members described, for instance, the substance of content. Organizational members at the corporate level tended to give different answers than managers within the business unit, and employees within the business unit often had yet another perspective. Within each organizational level, however, relatively unitary answers concerning the strategy content, organizational context, and strategy process

emerged. The answers not only varied across organizational levels but also over time as implementation proceeded.

Although it was possible to estimate how *specific* the planned strategy was at t0 or t1, it became increasingly evident that my estimation of the content, process or context did not really matter. My estimation was not guiding action by organizational members. Only their own estimation of how specific the planned strategy was at the time could help me understand why they initiated modifications. Likewise, my count of how many people had been involved in different activities was irrelevant. I could argue that half the staff had been involved in one way or the other, but if employees felt they had not had any impact or influence in the change process, then again, my account of what happened would be irrelevant. The “variables” in the preliminary model thus proved to be of less value once the importance of the subjective understandings of these variables became apparent, and the potential importance of differences across organizational levels and time became evident.

A new model, based on theory as well as data, was needed to incorporate these different perspectives, which depended on the level of the organizational members and on the time at which they were asked.

Across-Case Analysis

The within-case analysis indicated that organizational members differed in their reports of e.g. the level of involvement in the change process. A new theoretical framework, which emphasized and explored the different understandings of the change, was introduced to facilitate comparison across cases. Theories based on the assumption of social construction of reality emphasize how different people or groups interpret and view things differently. (Berger & Luckmann, 1967). Based on what was interpreted as key issues from the data (the so-called themes) and the requirement for capturing social constructions of reality, three theoretical perspectives were considered as foundations for the across-case analysis; a sensemaking perspective, a political perspective, and a learning perspective.

The sensemaking perspective focuses on how people at all levels of an organization make sense of their surroundings and events and actions related to

the organizational context. This theoretical perspective lies within the cognitive perspective and key issues include how mental models and interpretive schemes change and develop and relate to organizational change. The within-case analysis, which revealed different views and understandings of the changes in the organization made this perspective relevant.

The political perspective assumes that people in organizations have different goals and agendas. This often leads to conflicts and negotiations. The political perspective has been employed for many years to understand strategic change processes, among others by prominent researchers such as Pettigrew (1985), Pfeffer (1981) and Hardy (1994 and 1995). The political perspective on change also creates the foundation of much of the literature on resistance to change. In the within-case analysis of the implementation of BRA, several conflicts appeared. Hence the political perspective was found as a natural potential perspective for across-cases analysis.

The learning perspective focuses on changes in an entity (such as an organization, a planned strategy, or changes in behavior) based on processing of information (Huber, 1991) or through the principle of feedback (Hendry, 1996). Learning theories can be divided into behaviorist and cognitive theories (Glynn, Lant, and Milliken, 1994). The cognitive stream of learning research focuses among other things on how people form plans and images, act on these and then actively modify perceptions, plans and behavior based on feedback (Hendry, 1996). The perspective was considered partly based on the literature review and partly based on the preliminary findings. The literature review, particularly research on innovation and public policy implementation, closely linked modifications to learning processes. The data also indicated that learning and experience transfer occurred throughout the change process.

Before deciding on theoretical perspective(s), the chronology at the corporate level was drawn up showing the processes within each case in relation to each other and in relation to the corporate activities. Visual mapping was thus again employed. Visual mapping, when employed in this way, allows for the simultaneous representation of a large number of dimensions, and it can be used to show precedence, parallel processes, and the passage of time. By comparing several visual maps, patterns can be traced and causal maps

generated. This strategy is good for uncovering patterns, but does not necessarily reveal the underlying forces driving the sequences of events (Langley, 1999).

Visual mapping facilitated synthesis between the cases. The process in each business unit was compared and contrasted with other business units by drawing up tables and figures that focused on key themes and issues. No new theory had been introduced yet. Themes and issues were based on descriptions or interpretations of what interviewees seemed to think was important.

The three theoretical perspectives were then applied to explain themes and key issues. This is what Langley (1999) refers to as an alternate templates strategy. The alternate templates strategy is a strategy where several theoretical perspectives are presented to describe a phenomenon. The alternative perspectives do not test theory, but rather provide different interpretations through different variables, levels of analysis and reveal different dynamics.

While the three theoretical perspectives served well to explain different key issues respectively, it was difficult to establish a tight fit between them. Inductive research evolves from the data and one of the main goals of inductive research is to build theory. While deductive research springs out of a theory and thus has theoretical connections, inductive research has no inherent connection and therefore it requires a tight theoretical fit. To establish this tight fit it became necessary to choose one perspective that integrated the findings. The sensemaking perspective was found as the most suitable and appropriate theoretical perspective to explain how and why modifications occur. The sensemaking perspective employed at multiple levels (corporate and business unit level) allowed for an emphasis on the interplay between those who formulate strategy - the "mappers" (Huff, 1990), and those who implement strategy - the "interpreters" (Sims & Gioia, 1986). The sensemaking perspective was furthermore broad enough so that conflicts and learning processes could be adequately explained within the theoretical framework. It thus incorporated the main themes and issues.

Once the theoretical perspective had been chosen, it was possible to work on an integrating model and propositions. Propositions were formulated as described

by Eisenhardt (1989b), namely by (a) comparing cases and categorizing according to variables of interest and (b) through a series of iterations between data and propositions. Once the propositions had been developed, existing literature was consulted. This was again based on Eisenhardt's (1989b) arguments of introducing existing literature "*to elevate the conceptual level of the findings....and to enhance internal validity*" (pp.82) .

Writing up the cases

A number of different styles have been used to present qualitative and inductive research. Often a description of the data precedes the analysis. Another choice, more in line with deductive research, would be to first introduce the theory, and then describe data within the theoretical framework. Here, a third alternative was employed. A "tell and show, show-and-tell" style (Huff, 1999; Golden-Biddle, 1997) consisting of a mixture of descriptions, supported with quotes, and analysis was used. The analysis relies both on inductive methods and existing theory, such as the sensemaking perspective, organizational identity and image theory, and procedural justice theory. Sometimes description intertwines with analysis. At other times the description comes first, and the analysis afterwards. Rather than structuring the presentation strictly in terms of description and analysis, the findings are presented around the research questions.

In order to avoid confusion about what constitutes description versus analysis, the chapters with findings can be described as follows. Chapter seven begins with a description of the change journey both within each business unit and at an overall corporate level. The focus is on research question one – identifying modifications; and research question three – exploring the effects modifications have on change outcome. An analytical discussion where different types of modifications and outcomes of modifications are presented follows after the description. The analysis is based on the data, and no new theory has yet been applied.

In chapter eight, the sensemaking perspective is introduced and the cases are presented with the help of sensemaking perspective. Multiple and divergent descriptions about content, context, and process can be explained and clarified using the sensemaking perspective. In this chapter theory precedes description.

The description remains analytical, which means that the theoretical framework guides the description.

Chapter nine is mainly analysis and linking up the findings from chapter seven and eight. In chapter nine the attempt is to move to a higher-level analysis. Since theory is built on the basis of data, and thus is contextually bound, the data is summarized as evidence. The main attempt of the higher-level analysis is to move from thick and contextually bound description to a higher level of abstraction by introducing a general integrating model based on the data. This way, the findings are more easily transferable to other contexts in future research.

4.5 Methodological Strengths and Weaknesses

All methodologies have their strengths and weakness. Methodologies should first and foremost be judged according to how appropriate they are for examining the research questions. In addition to this assessment, there are some implicit strengths and weaknesses with all methodologies. Careful design of the study and explicit analysis methods can remedy some inherent methodological weaknesses.

Strengths of case studies that aim at building theory include: they are likely to generate new theory; constructs are readily measurable and hypothesis readily testable; and theory is likely to be empirically valid (Eisenhardt, 1989b). These strengths are based on the close relationship between the theory and data. The close relationship between data and theory also implies some weaknesses. Theories based on case studies are likely to be overly complex and narrow. (Eisenhardt, 1989b).

The strengths and weaknesses above assess the outcome of the research process – the theory that is built. In order to thoroughly evaluate the findings of the study however, the research design, data collection, and data analysis need to be assessed as well. Common research evaluation criteria include objectivity, internal and external validity, and reliability. These evaluation criteria have been criticized as tailor-made for quantitative and theory-testing research (Altheide & Johnson, 1998; Cassell & Symon, 1994; Maxwell, 1992;

Orlikowski & Baroudi, 1999; Symon & Cassell, 1998) and there is an ongoing debate about the criteria upon which qualitative research should be judged.

Regardless of the criteria upon which evaluation of research is based, the point is to enable others to evaluate the strength of the method and the evidence grounding the theory. Others need to be able to assess whether or not the researcher has followed a careful analytical procedure, whether evidence supports theory, and whether rival explanations have been ruled out (Eisenhardt, 1989b).

In the following discussion describing how inherent methodological weaknesses of longitudinal case studies have been met, the following criteria are used: descriptive, interpretive, construct, and internal validity; usefulness and transferability; and reliability. These criteria serve as a way to present how essential threats or weaknesses of the study have been met, but the discussion should make it possible to use other research evaluation criteria as well.

Validity

Four different types of validity are relevant to discuss in this study. They are: descriptive validity, interpretive validity, construct validity, and internal validity.

Descriptive validity refers to the factual accuracy of the data and whether or not enough description has been provided to adequately understand the setting (Maxwell, 1992). The descriptive validity of the data becomes a crucial point when it is assumed that the researcher has inherent beliefs and values, and that multiple realities exist within the research setting. Descriptive validity was secured in several ways in this study. Data was collected at multiple levels of the organization and through multiple sources. In addition, data was collected over time. Facts were checked out with another researcher during and immediately after data collection. Facts were also verified by organizational members within each business unit during workshops, where in-process reports were presented.

Interpretive validity has to do with the credibility of the research in the eyes of the researched population (Maxwell, 1992). This is also called the emic

perspective. Participant verification as described above, in the form of workshops and in-process reports, also ensured credibility of the research in the eyes of the researched. There is always a risk, however, that organizational members will disagree with the interpretations researchers make, especially if the interpretation puts the organizational members in a bad light. As explained previously, factual information was always corrected based on feedback. Disagreements based on interpretation were not always corrected, especially if they were connected with applying theory. When main themes and issues were identified however, it was important that organizational members recognized and verified main issues in the implementation process.

Another important validity requirement in this type of study is the ability to provide logically coherent and analytical accounts of the phenomenon. This includes both (a) construct validity: the validity of the concepts and (b) internal validity: the validity of the postulated relationships among the concepts. While descriptive validity and interpretive validity requires that the research is credible in the eyes of the researched, construct validity and internal validity requires that the research is theoretical and analytical, and hence credible for other researchers.

The development of a tentative research model based on a-priori specification of constructs increases construct validity because it allows more accurate measurements of the constructs (Eisenhardt, 1989b). There is no guarantee, however, that the same constructs will be used in a final model and in the development of propositions. Development of propositions strengthens construct validity through the constant comparison between data and constructs (Eisenhardt, 1989b). Multiple sources of evidence and multiple indicators serve to increase the validity of emerging concepts. Evidence of decision-based modifications found in interviews could for instance be backed up by similar evidence in documents. Statements concerning which changes had been made in plans and goals during the change process could be coupled with statements concerning how the business units could affect the change content and process, and these different indicators strengthened the evidence that decision-based modifications were taking place

Internal validity, or the relationships among the concepts were strengthened through the longitudinal nature of the study. Process studies leave little doubt as to the direction of causality. Relationships among concepts can nevertheless be strengthened if patterns are found over time. The analysis methods of temporal bracketing and alternate templates strengthen the relationships between the concepts by providing patterns (through temporal bracketing) and mechanisms (through alternate templates) that link the concepts. The search for “why” behind postulated relationships also strengthens internal validity, as does comparison with conflicting literature (Eisenhardt, 1989b).

Usefulness and Transferability

Usefulness and transferability replace the criterion external validity. External validity means “the extent to which one can generalize the results of the research to the populations and settings of interest in the hypothesis” (Judd, Smith, & Kidder, 1991, pg. 28). This definition of external validity presupposes an attempt to generalize to a larger population, which is usually the case in quantitative studies. In qualitative, theory-building studies on the other hand, the researchers goal is to generalize to theory (Eisenhardt, 1989b; Tashakkori & Teddlie, 1998; Yin, 1994). This means the researcher aims to elevate findings to a higher level of abstraction, rather than to directly apply findings to a larger population. Yin (1994) refers to this as analytical generalization as opposed to statistical generalization. Since case studies rarely rely on random sampling, generalizing to a larger population is seldom a goal in these types of studies. In generalizing to theory, the question of how useful and transferable the theory is becomes relevant since further research is required to assess the generalizability and external validity of the theory. In general, the more coherent the research is, the more useful and the easier transferable it will be.

Using a multiple case design might increase transferability slightly. Especially if the cases studied are outliers, or extremes. Then one can argue that if the phenomenon is found in extreme opposites, it is likely to be found everywhere. However, when the choice is between one or a few cases, the strengths of a multiple case design lies more in its comparative dimension.

Simple and parsimonious theory makes research more useful and transferable. As stated previously, case studies often produce complex and contextually bound theory. Some data analysis methods, such as visual mapping and temporal bracketing are more likely to result in abstract theory than other analysis methods, such as the narrative strategy for data analysis and grounded theory approaches (Langley, 1999).

In order to be able to answer the three research questions, several different methods for analysis were used in this study. Using multiple analysis methods increases the likelihood of meeting several research criteria, since the different analysis methods score differently along the research criteria (Langley, 1999). While the presentation of the findings in the next two chapters remain contextual, the discussions, the integrated model, and the formulation of propositions represent attempts at moving from contextually bound theory to more useful and transferable theory. The integrating model probably represents the most easily transferable theoretical contribution of this study.

Reliability

Reliability has to do with whether or not another researcher, if following the same procedures, would arrive at the same conclusions. While some qualitative researcher (such as Venkatesh, 1998) would argue that replicability is not a goal in qualitative research, most researchers would agree that it is important to describe how the conclusions have been reached and how theory has been built in order for others to, if not replicate, at least assess the reliability of the research.

This methodology chapter included a careful description of the research process. One purpose of the chronological description was to increase traceability of the findings, and hence increase reliability. All of the data in this study are stored as electronic documents in a database in NUD*IST. This makes replication by another researcher easily accessible.

Reliability in coding was secured by providing explicit guidelines for coding, which can be used by another researcher. In this study, two researchers formally crosschecked coding during preliminary analysis. For the within-case analysis, specific coding guides were developed and archived over time (see

appendix E) and informal crosschecks were performed on a needs basis. Inter-coder reliability, which refers to whether or not another researcher would code the data similarly, was thereby secured.

All data was collected with another researcher who worked on a highly related, but different topic. Findings as well as research procedures were discussed and made as transparent as possible.

4.6 Summary

This chapter probed methodological issues. The first part of the chapter dealt with the selection of research design and requirements to the design. A longitudinal case study design was chosen to meet the following demands:

- Possibility to identify the initial formulated strategy
- Possibility to reveal modifications in this strategy over time
- Need to be able to explore reasons for modifications over time
- Need to be able to evaluate the effect modifications have on change outcome
- Access to an implementation process that can be studied in real time
- Possibility to rely on existing research which is both limited and fragmented, yet informative

A large Norwegian oil company, Statoil, was selected as the research setting. Within Statoil, three cases, or business units, were chosen for in-depth study and data collection. The business unit represented the main level of analysis, although an embedded case study design was chosen to incorporate the corporate level as well. Organizational members in different positions and at different levels were targeted within the business unit. The unit of analysis was the implementation process.

While data collection was steered by a deductively developed model, the primary data were also allowed a certain flexibility and openness to incorporate emergent issues. Interviews, observations and documents were collected at two main levels in the corporation; the corporate level and the business unit level. As mentioned, within the business unit level, interviewees at top management, middle management and employee level were targeted. The data analysis was

very much inductively driven, and although certainly affected by the tentative and deductive model, not confined or restrained by it. Preliminary analysis, within-case analysis and across case analysis were performed. The different methods for analyzing process data included visual mapping, narration, temporal bracketing, and alternate templates.

The chapter ended with a discussion of strengths and weaknesses of the chosen methodology. Efforts to minimize inherent weaknesses of the chosen methodology were made explicit through a discussion of descriptive validity, interpretive validity, construct validity, internal validity; usefulness and transferability; and finally reliability. The methodological descriptions and challenges presented in this chapter are an attempt to increase the reliability of the study.

Qualitative studies have been criticized as difficult to verify because *“the researchers don’t report clearly on their methodology because there are no shared conventions for doing so”* (Miles & Huberman, 1994 pg. 281). In this methodology chapter, the goal has been to be clear about the methodology by describing exactly how the research was performed, step-by-step and as specifically as possible, with emphasis on the steps between raw data and the presentation of findings. The findings, which are presented in the following chapters, are not presented chronologically. Instead the three research questions create the foundation for the presentation of the findings.

5. Tracing Modifications in Strategy

Modifications have been defined as any substantial changes to or alterations in a planned strategy. This is a general definition and it reflects the conceptualization of a strategy that travels through the organization over time (Falkenberg, 2002). This chapter traces the BRA strategy's journey with a focus on identifying modifications. The chapter addresses the first research question: How is a planned strategy modified over time?

The descriptions and illustrations of how Statoil moved from old to new strategy lead up to an analytical discussion of modifications. The analysis reveals different types of modifications, which contribute to a more precise definition of modifications. Three change outcomes based on modifications are presented: loose coupling, assimilation and accommodation. Findings related to the third research question, concerning modifications' effects on change outcome, are thereby also included in this chapter.

5.1 Moving from old to new strategy

Brief descriptions of the change process are presented along with illustrations showing how each business unit, and the whole corporation, moved from old strategy towards new strategy. The focus is on identifying modifications in strategy. More elaborate descriptions and analyses of the change process follow in the next chapters. A model by Denis, Langlely, and Pineault (2000) creates the basis for the illustrations in figures 3 to 6. They used similar illustrations to show how new leaders establish a position of leadership. In this study, however, the illustrations depict the old strategy and the new strategy as two endpoints. The idea is that over time, an organization moves between the old and new strategy. Ideally it ends up at the right-hand side, which means that the organization has implemented everything within the new strategy.

The illustrations need to include both planned changes and more emergent features. A solid line represents the planned strategy. Any shift in this line indicates that modifications have occurred through formal decision-making or changes in plans. The illustrations also show how much the corporation and respective business units have *actually* changed. This is illustrated with a

dotted line. Actual changes ideally match intentions. When strategy is viewed as a pattern in decisions and actions over time, and the realized strategy is expected to differ from plans (Mintzberg, 1978), the degree of actual change might not always coincide with plans. Any gaps between planned and actual changes indicate that modifications have occurred.

Time is depicted vertically in the illustrations. The implementation process begins at the top of the illustration. Process descriptions are presented at the left-hand side while with visual accounts of the degree of changes are presented at the right-hand side. The planned change (solid line) and the actual changes in the business unit (dotted line) can be traced over time as the business unit moves between the old strategy and the new strategy. It is important to point out that the degrees of planned and actual change are only estimations and not precise accounts. Furthermore, the time line is not drawn to scale, but rather meant as a visual aid for grasping how the implementation proceeded in the three business units as well as at corporate level.

The bottom of the illustration indicates how far each unit has come in terms of implementing the changes approximately one year after the official implementation date. For instance, figure 4 indicates that business unit A lies approximately halfway between the old strategy and the BRA strategy.

Corporate Level

At the corporate level, the planned strategy was, of course, one hundred percent based on a new way of organizing - a BRA strategy. The new IT system and all organizational changes (including introducing work processes at all levels, moving responsibilities and decisions to the lowest level, and simpler and more standardized administrative routines) would be implemented in all business units subsequently.

It soon became clear that the first business units were not implementing all of the intentions in BRA however. This became evident through a gap between actual changes and planned changes. A modification, based on the aggregation of what was actually implemented in the business units, appeared (Mod.1).

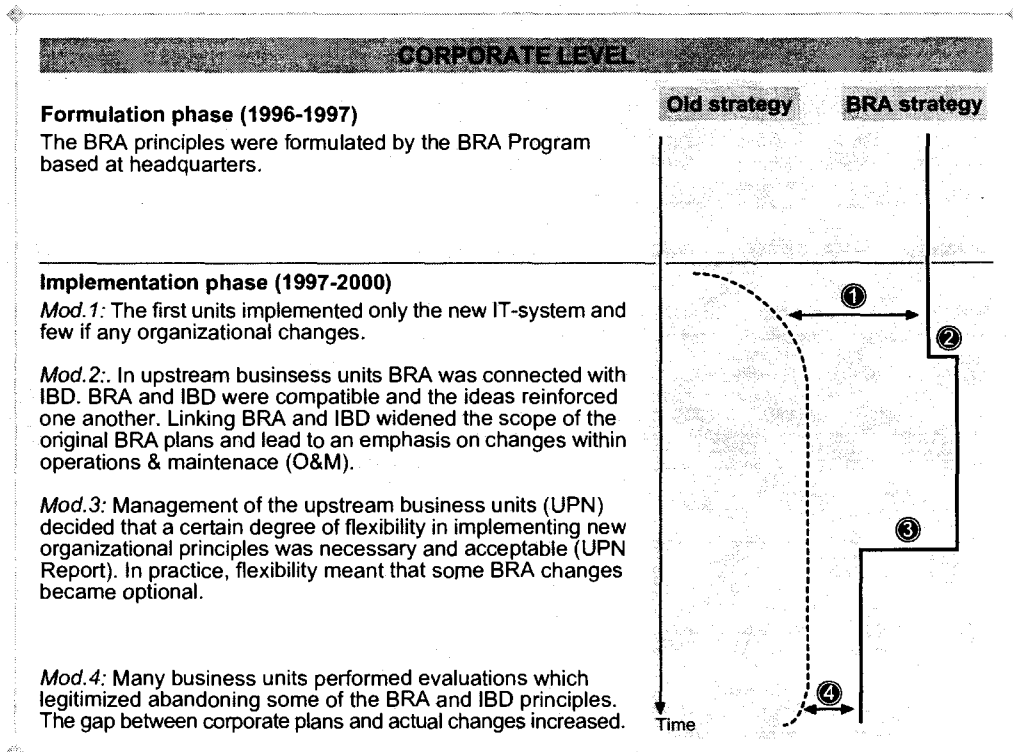


Figure 4: Moving from Old to New Strategy at Corporate Level

With time, the business units became more successful at implementing organizational changes and the gap between the planned changes and the implemented changes decreased. Experiences from the first business units indicated that it could be beneficial to start work on organizational (OD) changes early and this was done in subsequent business units. The upstream business units furthermore decided to link the BRA change with another change (IBD). IBD focused on improving operations and maintenance and included incentives in the form of a pay-raise. The underlying principles of BRA and IBD were basically compatible and in a sense they reinforced each other. By combining BRA and IBD then, the planned BRA strategy was emphasized but some new elements were also introduced (Mod.2). This combination also meant that competition for attention and resources between the two change initiatives would be avoided.

The sharp turn in the solid line towards the end of the implementation phase represents a major modification in strategy. This was in the summer of 1999. The Norwegian Upstream Division (UPN, see glossary) decided that a certain degree of flexibility needed to be introduced with regard to some of the organizational changes. This was quite a radical modification since it opened

up for local *variations* and adjustments in a strategy where one of the main goals was to *standardize* work processes across the business units. It also meant that some of the BRA changes became more or less optional (Mod.3).

At the end of 2001, several business units had performed evaluations to assess which BRA principles needed to be further emphasized and which should be dropped. There was some evidence that many of the business units were initiating similar evaluations. These modifications at business unit level restricted the potential degree of change at the corporate level as well because they meant that less changes would actually occur in the business units. So, although corporate intentions remained the same and there was no change in plans, the gap between the planned and the actual change increased indicating that a modification in strategy had taken place (Mod.4).

The dotted line in the illustration above shows actual changes as an aggregation of what was implemented in the business units. In order to fully understand the modifications that occurred in the implementation process, the business units have to be examined. After all, the business unit is the level at which change and implementation actually occurs.

Figures 5, 6 and 7 indicate that the three business units studied here ended up implementing approximately the same amount of changes. This was despite somewhat different intentions and quite different implementation processes. Illustrations similar to the one above visualize the journey of BRA within each business unit and reveal when modifications in the strategy occur.

Recall that the implementation process in each business unit was divided into three distinct phases. This was done during early data analysis to emphasize the temporal dimension and to facilitate comparison across cases. The first phase in each of the business units consisted of preparatory work prior to launching of the official BRA implementation project in the respective business unit. The second phase, the implementation phase, refers to what was officially planned as the implementation period. Corporate BRA supplied resources to the local BRA project during this phase. The respective business units labeled the last phase somewhat differently. Case A called it the local improvement phase, while case B referred to the last phase as the testing and evaluation phase. Case

C on the other hand called it training and evaluation. Although it was labeled somewhat differently, the last phase referred to the period after the intensive implementation work had ended. In case A and B this meant the local BRA project was demobilized, although case A followed up with local improvement projects. In case C, the local BRA project continued long after corporate people had left the business unit.

Business Unit A: Early Implementor

In the first business unit, early intentions were difficult to trace because there was not much preparatory work performed in the unit. Corporate BRA intentions were still geared toward implementing a one hundred percent BRA strategy. Once the local implementation project group was mobilized however, focus within the business unit was quickly turned towards implementing the IT component of BRA. The illustration shows a large gap between planned and actual strategy. This is because while the actual implementation consisted mostly of a new IT system, the formal strategy for the unit was never changed (Mod.1). Interviews showed that organizational members did not perceive this gap however, since most people either expected the IT focus and/or agreed with it. The same gap was evident in another business unit (the pilot implementation site, which was not one of the three cases included for in-depth data collection). Employees at the pilot site were very disappointed and upset about the gap and expressed that they had had much higher expectations concerning organizational changes.

CASE A: DOWNSTREAM OPERATIONS, EARLY IMPLEMENTOR

Preparation Phase (mid 1997 – Oct.1998)

Few preparations were made before the local implementation project team was established. Therefore, there is little evidence of the content of BRA (other than corporate plans) during this phase.

Implementation Phase (Nov.1998 – Jan.1999)

Mod.1: The implementation project included OD changes in their formal plans, but actual work was focused on implementing IT. IT was implemented in January 1999. OD was handed over to a local improvement group

Local Improvement Phase (Feb.1999 -)

A newly established local improvement group became responsible for the OD changes. The group continued working on plans from the implementation group and developed plans of their own. Their time span was 1-2 years, but after 6 months a new group took over.

Mod.2: A new improvement team was appointed, and in cooperation with Shell, this group implemented an improvement program geared towards improving Operations and Maintenance (The Merit Program). Merit met many of the BRA requirements within O&M, but left out many of the other BRA principles. The narrowing focus was formalized in specific project plans and resulted in actual changes within O&M.

Mod.3?: Almost two years after implementation of IT, a third improvement team worked on a new OD process where teams and new work structure would be defined. The content of this OD process was not yet established when data collection ended.

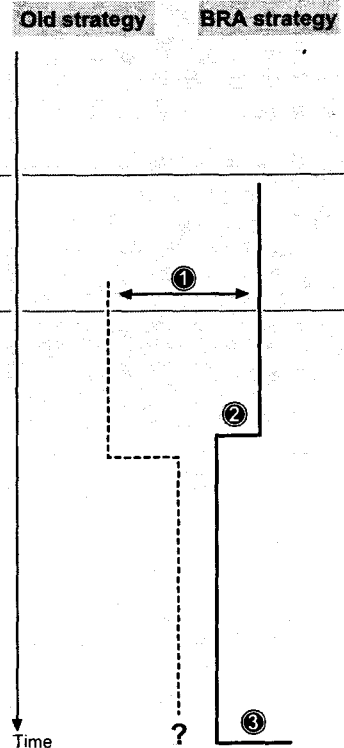


Figure 5: Moving from Old to New Strategy in Case A

Organizational changes were not introduced until in the last phase, and no organizational changes were implemented until over a year after the implementation of IT. The organizational changes then consisted of narrowly focused changes within one area - Operations and Maintenance. Three different improvement groups continued to work on BRA and related changes during the local implementation phase. No modifications occurred during the work of the first improvement group. The second local improvement group was responsible for the narrowly focused organization development (OD) work (Mod.2). Two years after the IT implementation, a more broadly based OD process was initiated by the third improvement group. The business unit then planned to reintroduce some of the other change issues that were originally included in BRA (Mod.3). No formal decisions had been made on this issue at the time data collection was completed (Dec. 2001), which is why the modification has a question mark.

In summary, bits and pieces of the intended changes were implemented in this business unit in a long-term gradual fashion with long periods between each

change initiative. The focused and sequenced implementation resulted in a fairly good match between plans and actual changes, but it took long to get each part of the new strategy implemented, and there was still a good ways to go when data collection for this study was completed (in 2001).

Business Unit B: Middle Implementor

The second business unit studied here implemented BRA midway through the corporate roll-out plan. It thereby had several other units in the corporation to draw on in terms of experiences. The intention in the business unit was to implement all BRA principles rapidly, first focusing on organizational changes in January, 2000, and then implementing the new IT-system in April, 2000. Although different from the corporate implementation plan, this was in line with accepted experiences and learning during implementation. The unit experienced five modifications in strategy.

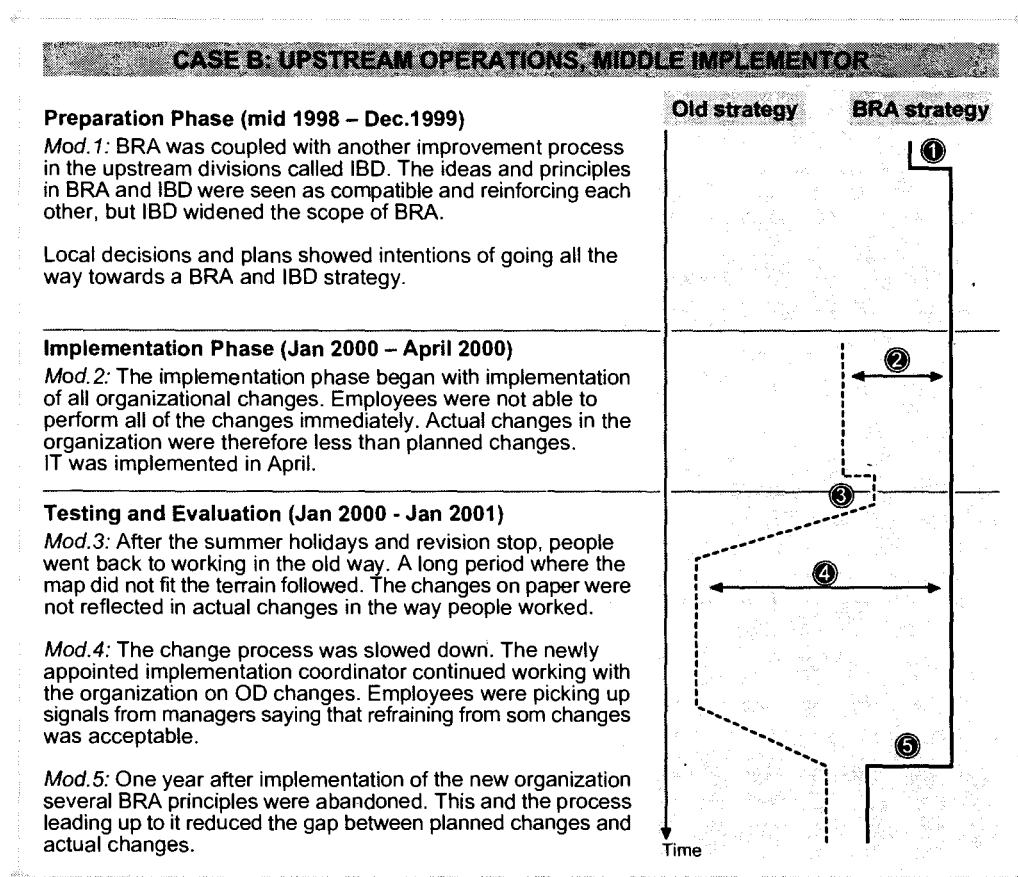


Figure 6: Moving from Old to New Strategy in Case B

Like in most upstream business units, BRA was coupled with IBD. Some new ideas and concepts were thereby included in the new strategy (Mod.1)

As in case A, there was a gap between plans and actual change early in the change process (Mod.2). Unlike the first case, however, the mismatch was not due to deliberate focus on e.g. IT. Rather it was connected with problems among employees in actually working in new ways. The gap was fairly large and it grew over time. This indicated that the strategy had been modified (Mod.3). Over time, employees became very concerned about the “mismatch between the map and the terrain” as they called it.

For a long time, management continued pressuring to implement the BRA strategy, while employees continued to basically work in the old ways. Only when management increased support, slowed down the change process, and started suggesting (off-the record) that adjustments would be made, did employees warm up towards some of the BRA changes again (Mod.4).

A major modification occurred one year after the implementation of the new organizational model. The modification was based on a one-year evaluation and the result was a reformulated strategy for the business unit where several of the most controversial BRA principles were abandoned (Mod.5). The modified strategy thus conformed better to the way in which people actually worked and closed the gap between planned and actual changes. The reformulations included: (a) integrated teams changed to situational teams, meaning employees stayed in their respective disciplines (b) middle managers were reintroduced and actually increased in number (c) responsibilities were moved back to managers from teams.

Business Unit C: Late Implementor

In the third business unit, which was among the last units to implement the new strategy, BRA was quickly coupled with IBD (Mod.1) The preparatory phase first resulted in suggestions of going all the way towards a BRA/IBD organization, but with one major difference compared with corporate plans. Instead of implementing everything in three months, the changes would be introduced in a four-step process over several years. Hence, the model for new

strategy in case C differed in terms of means, but the ends were similar to the corporate plan.

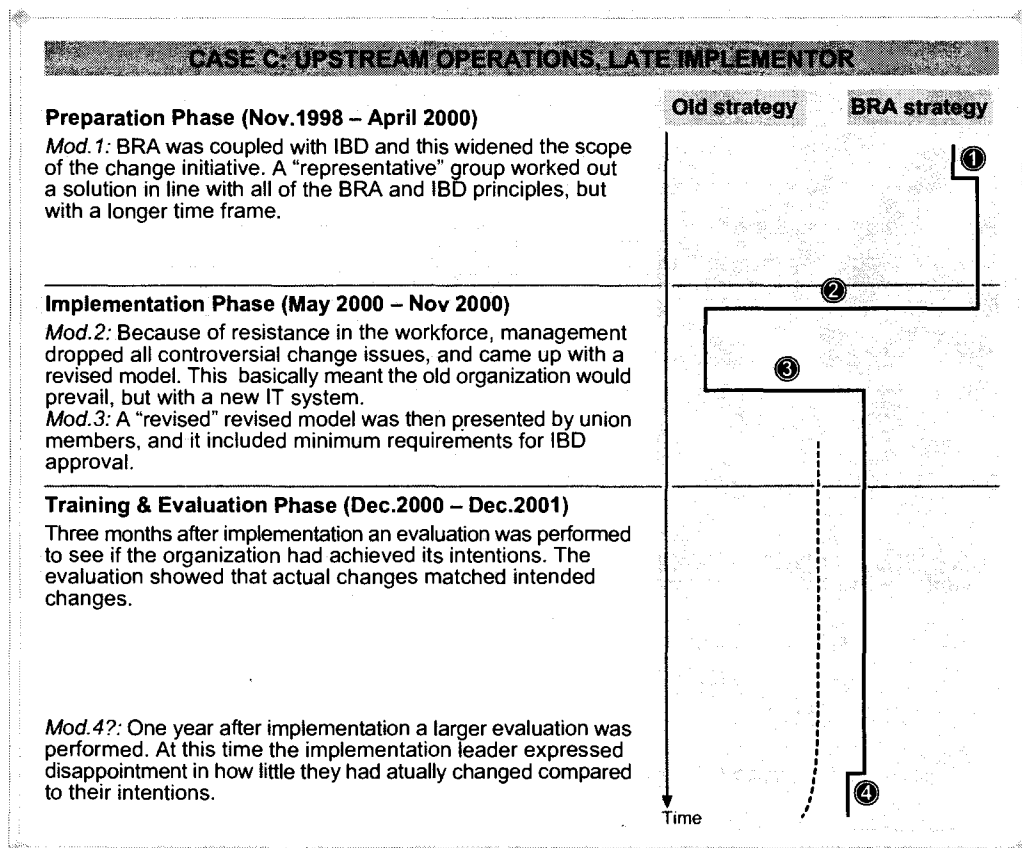


Figure 7: Moving from Old to New Strategy in Case C

Prior to implementation of BRA, the suggested model was altered (Mod.2). The modification was based on a Consequence Analysis, which contained many extremely negative opinions about the suggested changes. Management viewed the Consequence Analysis as the voice of the employees and modified the strategy by abandoning all of the controversial changes. However, at the same time they made it clear that IBD approval, and the higher salary level that came with it, was out of the question. The "new and revised organizational model for Business Unit C" was basically a model that retained the old strategy. In an attempt to secure higher wages, union representatives then re-introduced the changes that were necessary to apply for IBD approval. This represents another modification (Mod.3). The preparation phase therefore ended in a revised "new and revised organization model for Business Unit C" consisting of two steps (rather than the initial four) and these were implemented along with the new IT-system in November 2000.

No modifications occurred during implementation or during the following training and evaluation period. As the illustration shows, there was no evidence of any significant gap between plans and actual changes.

After a major evaluation, which was performed one year after the official implementation date (the evaluation report was released in January 2002), it was suggested to move further away from some of the BRA/IBD ideas, such as teams (Mod.4?). No formal decisions had been made at the time data collection ended however (Jan.2002). The one-year evaluation also hinted that the gap between actual and planned changes might have increased somewhat compared with the conclusions of previous evaluations.

Comparison of the Cases

The change journeys illustrated above show that there were some initial differences in terms of how far towards a BRA strategy the different business units were actually prepared to go. Business unit A gave priority to the new IT system at the expense of organizational changes. Business unit B and C on the other hand, started out with local plans that were very much in line with the corporate BRA decision. The implementation processes in the three units proceeded quite differently and the processes will be discussed thoroughly in the next chapter. All business units experienced a number of modifications, and modifications occurring within the business units affected the implemented strategy at corporate level as well.

The stepwise implementation that was taking place in business unit A meant that only parts of the corporate strategy was being realized. This improved with time, and the first business unit continued working on organizational issues. Although it took some time, organizational changes were gradually being implemented. While the UPN (corporate level) decision, in the summer of 1999, might have been expected to influence the intentions of subsequent business units, this did not seem to be happening. Indeed both the second and third business unit formulated local plans that were very close to the initial BRA and IBD plans *despite* the fact that the UPN decision at corporate level opened up for more local variations. Modifications were made in both of these business units at a later time however, and they resulted in abandoning some of

the BRA principles. This affected the degree of change achieved at the aggregated, corporate level.

The different modifications that appear in the data lead to a more precise definition of modifications, which includes the more emergent features in any change process. A closer examination of the modifications also reveals different types of modifications.

Despite good intentions, none of the three business units came close to realizing the BRA strategy as it was originally intended. Modifications in strategy resulted in partial implementation of the new strategy. The partially implemented strategy at the corporate level reflected equally partially implemented strategies at lower organizational levels. In the analytical discussion below, a typology of modifications and three different change outcomes are presented.

5.2 A Typology of Modifications

The modifications that were identified in the previous section were either based on decisions or actions. Modifications based on decisions are relatively easy to identify as they are reflected in changes in plans. Modifications based on actions, on the other hand, are more difficult to reveal, since they rarely become documented.

Five different types of modifications could be found in the data. The typology was developed through comparison of all of the identified modifications. In a sense, this means taking each modification and treating it like a case. The comparison revealed similarities and differences beyond the broader categories of decision-based versus action-based modifications. Five different types of modifications were identified: expansion, contraction, interpretation error, strategic interpretation, and non-compliance. *Expansion* means adding new elements and thus widening the scope of the original strategy, while *contraction* means eliminating elements from the original strategy and thus limiting or focusing the scope. Both types of modifications are based on formal decisions and are thereby documented changes in plans, which can easily be traced. The remaining three types of modifications are action-based and cannot

be traced through document scanning. *Interpretation error* refers to misinterpretations of the original strategy. *Strategic interpretation* is also a misinterpretation of the original strategy, but here the strategy is purposely (mis)understood in a way that benefits the interpreter. *Non-compliance* means that although the original strategy is understood, organizational members are unable or unwilling to actually change. The table below presents the typology of modifications along with examples and empirical evidence.

Type of modification	Definition	Empirical examples	Evidence
Expansion	Including new elements in the strategy and thereby expanding the scope of the strategy Requires changes in plans	Coupling BRA with IBD increased pressure and brought incentives. Re-introducing strategic issues that previously had been dropped.	Case B (mod. 1) Case C (mod. 1) Case A (mod. 3) Case C (mod. 3) Corporate (mod. 2)
Contraction	Eliminating some of the original elements in the strategy and thereby narrowing the scope of the strategy Requires changes in plans	Eliminating controversial elements from the new strategy. Focusing only on parts of the new strategy (O&M focus). Officially making the new strategy optional (UPN report)	Case A (mod. 2) Case B (mod. 4) Case C (mod. 2) Case C (mod. 4) Corporate (mod. 3) Corporate (mod. 4)
Interpretation error	Misinterpreting the formulated strategy (not deliberately).	Employers and middle managers do not understand what and how to change. Can also be the result of a time lag between decision making and action.	Case B (mod. 2) Corporate (mod. 1)
Strategic interpretation	Deliberately misinterpreting the formulated strategy	Making off-the-record suggestions or interpretations of the new strategy. Interpretations that are clearly different from original intentions and often to the benefit of the business unit.	Case A (mod. 1) Case B (mod. 4)
Non-compliance	Being unable or unwilling to actually change	Employees continued working in the old ways	Case B (mod. 3)

Table 4: Types of Modifications

The tentative research model and existing literature suggested that emergent features affect not only incremental and evolutionary change processes, but also planned change processes. It was also suggested in the methodology chapter that not all modifications would be found in documents. Action-based modifications became increasingly evident during data analysis. The action-based modifications were found due to obvious gaps between plans and actual changes. While the gap indicated that a modification had occurred, activities

prior to the gap had to be traced to identify which type of modification had occurred. Evidence on action-based modifications include:

Evidence of interpretation error showing that organizational members had problems understanding what the change was about:

” *What does integrated teams mean? At Case A one shift consist of 40-45 people. Is this a team? Or do we split up further and say that the production area is a team?” (Middle Manager, case A)*

” *This is one of my tasks. But I haven't started doing it yet. We lack tools to work with this. (Middle Manager, case B)*

Evidence of strategic interpretation showing that organizational members deliberately misinterpreted the formulated strategy:

” *...it's possible to define teams as you want and thereby say that you work in teams. (Head of operations, case B)*

” *They just rename the disciplinary units and call them integrated teams. (Internal Consultant in BRA Project, case C)*

Evidence of non-compliance showing that organizational members were unable or unwilling to actually change strategy:

” *To compensate this [the “ not- so- intelligent” changes] we work in the old ways, because this is how we have to work to reach our goals. (Employee case B, during phase II)*

” *We work the best we can according to the old organizational model... (Employee, case B)*

” *We do go to team meetings. It's just for show. But when we work it's according to old practices. Within my discipline, we have to ignore the team dimension [which is new] (Employee, case B)*

The first definition of modifications presented in this thesis focused only on decision-based modifications of the planned strategy. The definition "*modifications are any substantial changes or alterations in a planned strategy*" ignores the more emergent and action-based types of modifications. Based on data, the definition of modifications can be expanded to include "*any substantial changes or alterations in a strategy that occur during implementation.*" Modifications can be based on decisions and/or actions. In the new and more precise definition, strategy is not limited to plans but includes actions as well, which is more in line with the conceptualization of strategy as "a pattern in decisions and actions over time" (Mintzberg, 1978).

The next section links the five types of modifications to different change outcomes. Three different change outcomes are presented as effects of modifications.

5.3 Three Change Outcomes

In general, a planned strategic change has three potential outcomes:

- 1) 100% of the plans are implemented. This refers to what we often view as a successful organizational transformation. It can also be described as change success or implementation success.
- 2) None of the plans are implemented. This is usually considered a failure. The organization has not done what it decided to do. Only if the intended strategy represented an obviously bad plan, would this outcome be viewed as beneficial.
- 3) Some of the plans are implemented. This is usually also considered a failure.

Based on data and existing theory, this section presents three change outcomes within the last category – partially implemented strategies.

It has been argued that modifications refer to actions or decisions, but how do the modifications affect change outcome? Change outcome has to do with the state of affairs in the organization at any one point in time. Based on the descriptions of the movement from old to new strategy, all three cases (as well as the aggregated corporate level) can be categorized as partially implemented

changes. Some of the plans were implemented, but not all. The corporation did not succeed in implementing all intentions, and neither did any of the three business units. From a strategy research perspective this is likely to be viewed as a failure.

While the outcomes in the three business units appear similar, a closer inspection of change outcomes, particularly over time, reveals differences in outcomes. Snapshots within the business units at different points in time indicate several different change outcomes, which all fall in the “partially implemented” category. This suggests that multiple outcomes in the third category (partial implementation) can be found and that timing is crucial in assessments of change outcome.

Drawing on existing research and linking it to the data made it possible to identify different outcomes within the partial implementation category. In the attempt to grasp the different change outcomes that seemed to lie in the data, additional literature was consulted. Several contributions seemed to describe the change outcomes observed in the business units, although existing literature never referred directly to change outcomes or to partial implementation. Three partial implementation outcomes were identified in the data through continuous and iterative processes moving between data and existing research.

The idea of different outcomes based on modifications in strategy can be linked to research on different modes of adaptation (Fox-Wolfgramm, Boal, & Hunt 1998), outcomes of implementing management fads or techniques (Denis, Langley, & Pineault, 2000; Langley, & Denis, 2001; Røvik, 1998), outcomes from changes in interpretive schemes (Bartunek, 1984), and tracks in organizational archetypes (Hinings & Greenwood, 1988). Below each of these works will be tied to partial implementation outcomes and modifications.

Modes of adaptation, as discussed by Fox-Wolfgramm et al (1998) do *not* refer to how an organization adapts to environmental change. Rather modes of adaptation have to do with how an organization adapts to a new strategy, *and* how the strategy is adapted to the organization. While previous strategy research has often treated strategy implementation as merely a matter of “putting the strategy in place” (e.g. Wheelen & Hunger, 1992; or see

Rajagopalan & Spreitzer 1996 for an overview of strategy research within the rational lens perspective), Fox-Wolfgramm et al.(1998) recognize that the strategy itself is often affected (or modified) as it is put in place. Research on implementation of IT or new technologies has taken a similar approach (Leonard-Barton, 1988; Leonard-Barton & Deschamps, 1988; Orlikowski & Hofman, 1997; Robey, Boudreau, & Rose, 1998; Robey & Sahay, 1996). While this literature clearly, though indirectly, refers to modifications through its focus on adaptations in the strategy during implementation, it also opens up for multiple outcomes. An organization may adapt itself to the new strategy, or it may adapt the strategy to fit the organization, or both.

This point is taken further in several studies of different modes of interaction between techniques and organizations (Denis, Langley, & Pineault, 2000; Lozeau, Langley, & Denis, 2002; Røvik, 1998). These authors examine how management fads or techniques affect organizations and how organizations “use” management fads and techniques. They find that as the techniques are implemented in organizations, either the technique or the organization or both are changed. They also introduce a typology of modes of interaction between the technique and the organization. Transformation means that the technique transforms the organization so that its functioning fits the theory behind the technique. Customization means that the technique is adapted to make it more compatible with the organization without destroying its main aims. The technique may also be adopted superficially, retaining only a ritual function, and this is referred to as loose-coupling. Finally, the technique may be captured and used to reproduce existing roles and power structures, and this is called corruption.

In a study of changes in interpretive schemes, Bartunek (1984) found that changes in interpretive schemes were linked with organizational changes. Changes in interpretive schemes were found to occur through dialectical processes where old and new ways of understanding interacted, resulting in a synthesis. Syntheses are based on combinations of old and new, and as such they represent something new in themselves. This idea of change as a result of combining old and new ways of understanding can be transferred to the organizational level. A strategy that both changes the organization and is

changed by the organization can be viewed as a synthesis between old and new.

Hinings and Greenwood's (1988) view of strategy as archetypes present a different, but useful approach. A design archetype is defined as "*a set of structures and systems that reflect a single interpretive scheme*" (Greenwood and Hinings, 1993 pg.1052). They argue that organizations, as they attempt to move between archetypes, leave tracks. Strategic change can be viewed as an attempt to move between archetypes. The BRA strategy represents a new archetype based on ideas of process organization, empowerment, and teamwork. Hinings and Greenwood (1988) studied tracks for decoupling and re-coupling interpretive schemes and they present four different tracks: inertia, aborted excursion, unresolved excursion, and reorientation. Inertia is when an organization does not move to a new archetype. This is similar to implementation failure. Aborted excursion refers to an attempt to move, but then the organization falls back into the old archetype. An unresolved excursion is an attempt to move, which leaves the organization in no-mans land. In this situation the organization has neither established a new archetype nor moved back to the old archetype. Reorientation means a successful move from one archetype to another and this is similar to the first category of change outcomes called implementation success. Aborted excursion and unresolved excursion, on the other hand, represent intermediate change outcomes that are neither a clear success nor failure.

The studies above introduce intermediate outcomes that serve to nuance the polar change and implementation outcomes of success and failure and fill the broad category of partial implementations. Partial implementations can thus take on different forms, some closer to implementation success than others. In the figure below, the different change outcomes found in the literature are plotted. The two end-points are implementation failure and implementation success, and the purpose is to show the number of intermediate outcomes found within the partial implementation category.

Three different change outcomes based on partial implementation were identified in the data. They are highlighted in the figure below and placed within the existing categories that were found in the literature. Two outcomes

(loose coupling and accommodation) support and extend existing findings on intermediate change outcomes while one outcome (assimilation) represents a new category. Loose coupling, assimilation and accommodation are defined and illustrated with empirical examples below.

Implementation/ Change Failure	Aborted Excursion	Loose Coupling	Assimilation	Accommodation	Implementation/ Change Success
Inertia		Unresolved Excursion		Synthesis	Reorientation
		Loose Coupling		Customization	Transformation
		Corruption			

Table 5: Implementation Outcomes

1. Loose coupling

According to Weick (1979), "loose coupling occurs either when two separate systems have few variables in common or when the common variables are weak compared to the other variables that influence the system" (pg.111). Løwstedt (1993) distinguishes between changes in the formal level, meaning in formal rules, plans, and policies on the one hand, and actual changes in the organization on the other hand. These two change levels will be referred to as the strategic level and the operational level.

In this case, loose coupling refers to the two different levels in the organizations: the strategic level and the operational level. These two organizational levels represent the systems that Weick (1979) refers to. Loose coupling means that although a strategy is changed at the strategic level, this does not necessarily mean that actions have changed at the operational level. A loosely coupled change outcome thus refers to situations where the changes have been made at the strategic level - a new strategy has officially been implemented. At the strategic level the ideas and principles of the new strategy are in place. Actual work at the operational level however, has not changed.

Probing the data, and examining when loose coupling outcomes occurred, showed that this outcome is closely linked to two types of modifications. Loose

coupling can be the result of non-deliberately failing to make sense of the changes (interpretation error) or more deliberately refusing to implement the changes (non-compliance). The following quotes indicate loose coupling in the business unit B:

” *We have made the changes on paper.....but it takes long before they engrain the organization (Implementation Coordinator, case B)*

” *But then we experience uncertainty about the map and the terrain. They don't fit... (Implementation Project Member, case B)*

” *It's almost like before, because the changes are on paper, but we don't need to follow them. (Employee, case B)*

2. Assimilation

Assimilation means to absorb and to make one's own or to assume a resemblance. As a change outcome, assimilation reflects a situation where the strategy is successfully changed at the strategic level, and work practices at the operational level *seem* to have changed, but in reality new labels hide old work practices. In other words, there is a mismatch between changes at the strategic level and operational level, much like the loosely coupled outcome, but in this case, the mismatch is disguised. Data analysis indicated that assimilation outcomes occur when people at the operational level fail to make sense of the changes (interpretation error), or when organizational members at the operational level fit what they want to into the new strategy (strategic interpretations). Similar to loose coupling, this outcome is also based on inconsistencies across change levels. Formalities have changed, but practicalities have not really changed. Below are quotes that describe an assimilation outcome:

” *...we end up with integrated teams consisting of only mechanics. (Internal Consultant in BRA Project, case C)*

” *I don't think these teams are without a leader. If they don't have a formal leader, there will soon evolve an informal leader...If people think it's possible to flatten the organization by self-steered teams and by removing*

the line leader, then they forget that a new line-leader will immediately emerge. (Improvement Group Leader II, case A)

”

Nobody in this corporation satisfies the requirements for salary level H.... We have worked out a way to get it anyway. (Top Manager, case C)

The difference between loose coupling and assimilation is that in assimilation outcomes, the organization attempts to hide the gap between planned and actual changes. One of the quotes describes how the organization chose to implement integrated teams consisting of mechanics. The original idea was that electricians, mechanics and automation workers would benefit from cooperating in teams. However, this particular business unit preferred to keep the old way of organizing – in disciplinary units. So their solution was to rename the disciplinary units into teams. This is a clear example of how an organization attempts to fit what it wants into the new ideas within the new strategy (strategic interpretation), so as to appear to have implemented the planned changes (assimilation). This change outcome is difficult to get at by management and others because on the surface everything seems perfectly correct.

3. Accomodation

Accomodation means to adjust or to be willing to adapt oneself. This outcome refers to a situation where both the strategy and the organization have been adjusted in the implementation process. The planned strategy has been explicitly and visibly modified. More importantly however, some elements of the initial strategy have been implemented, perhaps in combination with other ideas, and hence the organization has adapted itself and changed according to parts of the new strategy. Other elements in the planned strategy have purposely been left out. This is similar to Lozeau, Langley, and Denis (2002) notion of customization, and Bartunek's (1984) synthesis based on new combinations of old and new. Data analysis showed that accommodation outcomes are tied to either expansion or contraction modifications in strategy. Other types of modifications may have preceded expansion or contraction, but the main point is that an accommodation outcome means that there is no significant gap between planned and actual changes. The changes are

consistent across strategic and operational levels. The following quotes indicate that accommodation outcomes could be found in the business units:

”

BRA and IBD were pretty loosely defined in terms of operationalization. This results in different variations... (Assistant Project Leader, case B)

”

All of the business units have their own models (Employee, case B)

”

We can use 10 of the new corporate work processes introduced by BRA, assuming that we can make some adjustments. If corporate BRA does not allow adjustments, then we have to consider keeping some of our old work processes (Report based on GAP analysis, Dec. 99 case A)

Loose Coupling	Assimilation	Accommodation
<p>Strategic level New strategy as intended from corporate level</p> <p style="text-align: center;">↕</p> <p>Operational level: No actual changes in the way things are done. Arrows indicate mismatch between strategic and operational change level.</p>	<p>Strategic level: New strategy as intended from corporate level</p> <p style="text-align: center;">↕</p> <p>Operational level: Seemingly close connection between theory and practice. Closer investigation shows few actual changes. Old ways of working persist but under new names.</p>	<p>Strategic level: New strategy modified compared with corporate intentions</p> <p>Operational level: Actual changes consist of new ideas combined with old ways of working. Some old practices and some new, including new couplings of old and new. No discrepancy between levels.</p>
<p>Characteristics: Symbolic changes. Changes have been made on paper only. The map (formulated strategy) does not fit the terrain.</p>	<p>Characteristics: Symbolic changes. Old ways of working are adapted to the new strategy by renaming old practices and/or fitting them into new strategy.</p>	<p>Characteristics: Local variations of the strategy. Organizations (or business units) pick and choose from the new strategy. Some elements are implemented, some are not.</p>
<p>Based on: 1) Interpretation error 2) Non-compliance</p>	<p>Based on: 1) Interpretation error 2) Strategic interpretation</p>	<p>Based on: 1) Expansion 2) Contraction</p>

Table 6: Three Change Outcomes

The first two change outcomes (loose coupling and assimilation) are based on discrepancies between the strategic and the operational level, or discrepancies between formal plans and actual changes. They may have passed as successful implementations if one only measured change at the strategic level since the planned strategy at the business unit level is in accordance with corporate intentions. Only closer inspection, at lower levels in the organization, reveals that the changes have not affected the way work is performed.

The third change outcome (accommodation) is based on discrepancies over time between the intended strategy (plans) and the realized strategy (actual changes). Changes at the strategic level are similar to changes at the operational level, so there is no discrepancy between change levels. The discrepancy has to do with the temporal dimension. If implementation success was measured based on how many of the initial intentions had actually been implemented, then this outcome would be viewed as a failure. Only some of the intentions have been realized. However, the changes that have been made are implemented both at the strategic level and at the operational level.

The discussion above shows that the common ways of evaluating change success or failure (or implementation success or failure) may be based on surface snapshots, and closer scrutiny or a longer time frame, might show quite different outcomes. The need for more than two (success or failure) or even three (including partial implementation) possible change outcomes thus becomes evident as does the need to evaluate changes at different organizational levels and across time.

5.4 Summary and Conclusions

This chapter has illustrated that modifications in planned strategies do take place. Identification of twelve modifications in the business units, and three modifications at the corporate level, revealed that there are different types of modifications. A more specific definition of modifications could thereby be proposed which included both decision-based and action-based modifications.

A typology of five modifications was developed based on the data. Expansion refers to increasing the scope of the strategy, while contraction refers to eliminating some elements within the strategy. Interpretation error is a misunderstanding of what the change is about. Strategic interpretation is more deliberate and has to do with selectively fitting what one prefers into the strategy. Non-compliance is also deliberate as it means refusing to abide by the strategic decision.

While strategic changes are usually rated as either a success or a failure with few categories in between, three intermediate categories for change outcome were presented here. The categories build in part on existing research and in part on data and they are closely linked to modifications. The different types of modifications refer to actions and decisions, while the outcomes represent the state of affairs at any one point in time. The first category, loose coupling, means that although changes have been made at a strategic level, no such changes can be found at the operational level. The second outcome category, assimilation, is a similar category as it too refers to changes at the strategic level, but no actual changes within the organization. However, here changes appear to be made at the operational level because old practices have been renamed to disguise the mismatch between planned and actual changes. The last category is accommodation and it represents a situation where changes have been made at both at the strategic level and at the operational level, but the changes are not in accordance with original intentions. The changes at the operational level match plans at the strategic level, so there is a tight fit between strategic and operational levels in terms of the degree of change.

The three change outcomes are linked to the five types of modifications. Expansion and contraction type modifications are inherently linked with accommodation outcomes since this outcome by definition requires documented and traceable changes in plans. The other three types of modifications, which are action-based, are linked in a similar manner to the outcomes that show discrepancies between strategic and operational levels (loose coupling and assimilation). The linkages between different types of modifications and outcomes will be developed further and connected with reasons for modifications in chapter seven.

6. Construed Realities

In the previous chapter different types of modifications were presented along with three change outcomes that can be placed within the “partial implementation” category. In this chapter, reasons for modifications are explored. The data are analyzed and presented using a sensemaking perspective.

The chapter begins with a brief presentation of the sensemaking perspective, focusing on how it will be applied in the analysis. The sensemaking perspective lies within the cognitive perspective, which was introduced in chapter three. A key construct in this respect is *construed realities*. Construed realities (CRs) have to do with how individuals and groups perceive and understand things that go on around them. During data collection, substantially different descriptions about the change content, process and context emerged. These descriptions represent different construed realities. The sensemaking perspective and the concept of construed realities, provides an analytical framework for interpretation of the data. The strength of this theoretical perspective, as compared with the tentative research model, is its emphasis on the likelihood of many different interpretations of strategic change within the organization. The underlying explanation for this rests on an assumption of social construction of reality (Berger and Luckmann, 1967, see chapter 3 for more on social construction).

6.1 The Sensemaking Perspective

As the name indicates, sensemaking refers to how organizational members make sense of things. Gioia & Chittipeddi (1991) define sensemaking as “*the meaning construction and reconstruction by the involved parties as they attempt to develop a meaningful framework for understanding the nature of the intended strategic change*” (pg.442). Weick (1995) describes sensemaking as including how individuals use interpretive schemes to make sense of things. Interpretive schemes are described as systems of meaning that the sensemaker has developed through experience and socialization (Weick, 1995).

Interpretive schemes have also been defined as “*shared, fundamental assumptions about why events happen as they do and how people are to act in different ways*” (Bartunek, 1984, pg 355). Interpretive schemes thus include both structural and social properties. The social properties consist of shared assumptions. Sensemaking can be both an individual and a social process. Individual sensemaking processes refer to fitting new things (such as organizational changes) into an interpretive scheme or system of meaning which the sensemaker has developed (Weick, 1995). Social sensemaking processes refer to constructing meaning through discussions, stories, gossip, rumours, and negotiations (Balogun, 2001).

Similar to interpretive schemes, although not representing structural properties, are *construed realities* (Isabella, 1990; Sutton, 1987). Construed realities are shared interpretations of events and actions, which guide the attribution of meaning and significance to specific organizational events (Isabella, 1990). In exploring how organizational members at different levels make sense of changes, different construed realities will be identified. There are two main reasons for focusing on construed realities rather than interpretive schemes. First, different views of the change process need to be linked to modifications. This study is not about how different views of the change process evolve, but rather about the effects of different construed realities. The emphasis is thus on *what* the construed realities are and how construed realities can be related to action rather than *how* construed realities change and develop. Secondly, construed realities are more readily available for analysis than interpretive schemes. Construed realities can be expressed through descriptions whereas interpretive schemes exist inside the heads of the individuals and are therefore more difficult to identify.

Sensemaking processes can be triggered by strategic and organizational change and organizational members use sensemaking processes to resolve ambiguity and uncertainty (Balogun, 2001). According to Weick (1995) sensemaking consists of seven properties. Sensemaking is (1) grounded in identity construction; (2) retrospective; (3) enactive of sensible environments; (4) social; (5) ongoing; (6) focused on and by extracted cues; (7) driven by plausibility rather than accuracy.

Interpretation is closely related to sensemaking, although sensemaking incorporates more than interpretation. Interpretation requires the existence of something specific to interpret, while sensemaking can be triggered by mere uncertainty or surprise. Sensemaking can begin with beliefs and take the form of arguments and expectations. Sensemaking can also begin with action. It then involves commitment and manipulation; commitment because interpretation is needed to explain behaviors for which people are responsible, and manipulating because it involves stabilizing an otherwise unstable set of events so that it is easier to explain them. According to Weick (1995), this manipulation is a kind of simplification of the perceived world.

Sensemaking is an effort to tie beliefs and actions more closely together. In both cases sensemaking involves taking what is clearer (a belief or an action), and linking it with that which is less clear. In analyzing the data, this connection between beliefs and actions is emphasized. Expressed beliefs in the form of construed realities guide action, but action also shapes construed realities over time. As mentioned, it is not the development of beliefs that is central here. Construed realities are taken as given, and the goal here is to explore differences in construed realities and to probe the relation between beliefs and action.

Gioia & Chittipeddi (1991) found that sensemaking occurs at several levels. In their study, sensemaking processes were evident on the part of the lower-level members of a university and external constituents as well as managers. All were trying to figure out the meaning of the proposed strategic change effort, its effect on them, and their role in it. (Gioia & Chittipeddi, 1991). The sensemaking perspective furthermore predicts that people in different organizational positions are likely to interpret similar events differently. *“People in organizations are in different locations and are familiar with different domains, which means they have different interpretations of common events”* (Weick, 1995 pg. 53). Isabella (1990) also refers to several studies that suggest that cognitions and perceptions can differ by individuals’ organizational function or level.

The sensemaking perspective thus predicts that construed realities differ across organizational levels, but construed realities are also expected to change over

time. This is the main point in Isabella's (1990) work on evolving interpretations as change unfolds. She argues that as change unfolds, different assumptions and orientations are required at different times in the process. As new facts arise and new questions are asked, construed realities change.

Organizational change triggers sensemaking. More specifically, events that organizational employees view as critical act as triggers. In the business units studied here, three distinct phases in the local implementation process became clear through the descriptions by organizational members. The different phases followed some critical event or decision that could be expected to trigger sensemaking.

To sum up, the sensemaking perspective will be used in the following manner: strategic changes, and events and decisions linked to the change process, trigger sensemaking processes. Sensemaking processes are a combination of individual and social processes attempted at interpreting and understanding the change initiative. Because different people have different interpretive schemes, sensemaking processes are likely to result in different views of change events and actions - different construed realities appear. However, due to the social dimension in sensemaking, construed realities can be expected to be similar within certain groups, organizational functions, or levels.

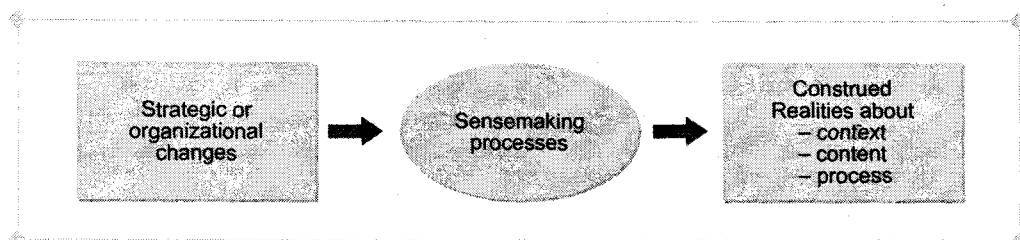


Figure 8: Sensemaking Processes and Construed Realities

Research question two concerning why modifications occur creates the foundation for this chapter. Preliminary data analysis suggested that sensemaking theory was a useful and appropriate theoretical framework for answering this question. Sensemaking theory directs attention to the following questions:

- 1) What are the construed realities (CRs) about the change content, context and process?
 - a) Do the construed realities (CRs) differ across organizational level?
 - b) Do the construed realities (CRs) change over time?

6.2 Making Sense of Context

This section presents organizational members' descriptions of context. Context can refer to many different things, such as environmental, economic, political and organizational context. The data suggested two contextual aspects that are particularly important for understanding modifications: (1) organization identity and image and (2) key actors' main task. The way in which organization members describe their organizations' identity and image and which tasks key actors perceive as central reveal important elements in CRs about context. The section begins with a presentation of relevant theoretical work on identity and image and continues with descriptions of CRs relating to these two central contextual issues within the three business units.

In line with literature on organizational identity and image (Dutton & Dukerich, 1991), the way organizational members interpret and behave towards strategic issues depends on how they view their organizations' identity and image. Fox-Wolgramm et al (1998) also found that organizational identity and image affected the way organizations respond to planned change initiatives.

Organizational identity has been defined as what organization members believe to be the organizations' central, enduring, and distinctive character (Albert & Whetten, 1985). Organizational image on the other hand, has to do with how organization members believe others see the organization (Dutton and Dukerich, 1991). Dutton & Dukerich (1991) argue that an organizations' identity serves to filter and mould interpretations and actions within the organization. An organizations' image is tied to individual's sense of self, hence the image also steers interpretations and actions. For example, as Dutton & Dukerich (1991) found, in case the organizations' image is damaged, individuals in the organization are motivated to take action.

In analyzing the data from the three cases in this study, organization identity refers to the business unit level. Each business unit was relatively large and independent and organization members were clearly more tied to the business unit than to the corporation. Organization image describes how members of a business unit believed that corporate management and “outsiders” viewed each business unit. The data from the three cases showed no significant discrepancies between different organizational levels in terms of how organization members described their units’ identity and image. Top managers, middle managers and employees provided quite similar descriptions of identity and image. Each business unit will therefore be presented without distinguishing between organizational levels. Changes in CRs about context over time however, were found in some cases and this will be addressed.

The second important contextual dimension, key actors’ task, is tied to organization identity and image. Key actors in the change process include top managers in the business units and leaders of the local implementation projects. The data indicated that key actors saw their main task or purpose either as (a) implementing corporate decisions or (b) protecting the business unit. Key actors who saw their main task as implementing corporate decisions tended to have a close relationship with corporate management. Key actors who saw their main task as protecting the business unit were more distanced from corporate headquarters. Descriptions of identity and image reveal the nature of the relationship between each business unit and corporate headquarters. Perceptions of the key actors’ main task are presented at the end of this section after CRs about organizational identity and image have been presented.

Organizational identity and image in business unit A

Business unit A was a refinery and hence a downstream unit. Because of the downstream focus, organizational members described their unit as not very important in the corporate connection. Managers (top and middle) and employees believed they had little power or status vis-a-vis headquarters, and that the upstream offshore units were the most important in a corporate setting.



[Case A] is not a core business in the corporation (CEO, case A)

” *Interviewer: Does [case A], as one of the first units to implement BRA, have any power to influence the BRA process?*

” *Interviewee (employee, case A): No, I don't think so. Offshore units are the strongest. It has to do with internal status in the corporation and who has most people in the right places. Case A, in a corporate setting, is a stepchild.*

Managers (top and middle) and employees also described how they thought others viewed their unit:

” *We are seen as strange and problematic. (CEO, case A)*

This view was reinforced by the fact that few top managers wanted to work in this business unit voluntarily and hence most of the managers were ordered to take positions here.

The organizational image was also based on history. Extensive negative media coverage from about ten years back had given the refinery a bad reputation. The refinery had serious cost overruns related to new investments and upgrading of the plant. Indeed, controlling costs was still considered the main challenge for this business unit.

In addition to reducing and controlling costs, another important challenge for business unit A consisted of retaining the work force,. While controlling and reducing costs had been a long-term challenge, competence in value-creation had balanced this out somewhat. But the pressure to reduce costs increased over time in the change process as the refinery industry was facing difficult times and plants were being closed across Europe. Keeping employees in the organization was also difficult. Operators often resigned or transferred offshore where the pay was higher. Creating stability in the workforce was therefore described as a challenge as the quotes below indicate.

” *Nobody wants to work here.... It's unfortunate because we become a training arena where we train people who disappear in the organization,*

”

but nobody comes here so we never get any new impulses and we could have used that. (Employee, case A)

”

The problem is not really about getting rid of people however, but to manage with the ones we keep. (Top Manager, case A)

Organizational identity and image in business unit B

At the time of establishment, this ten-year old upstream unit represented a new and innovative platform. The organizations' philosophy was based on a modern and flat organization where everything that could be done onshore was done onshore. A "shadow organization" was therefore established onshore to support offshore operations. The flat organization required few departments and multiple competencies. Multiple competencies meant offshore employees had to have broader knowledge than their specific discipline. The aim was to increase the overall understanding and to operate more efficiently by fewer work orders and fewer employees (these ideas are similar to the philosophy behind BRA and IBD).

Managers (top and middle) and employees at this unit were proud of their modern organization and they believed that corporate headquarters thought highly of them as well. Indeed, the unit was often used as a prime example when the corporate managers showed off their organization to politicians and top executives. Benchmarking results supported their view of themselves as "best-in-class". In addition top managers described the unit as having an environmental profile and high safety and a good reputation externally as a reliable gas supplier. As compared with other business units, this unit saw itself as more modern and capable of change.

”

Our division is used as a prime example of organizational change and SAP and all that. (Employee, case B)

”

[Case C] and another upstream unit have chosen [organizational] solutions that will bring them close to where we were before. (Employee, case B)

The main challenges for the unit were work environment and safety issues. In terms of work environment management described an on-off culture, (too) close ties between offshore management and employees, conflict-avoiding behavior offshore, and a preoccupation with economic compensations.

The “on and off” culture referred to how employees worked twelve-hour shifts for two weeks, often putting in over-time as well, and then they had three to four weeks off, when they wouldn’t need to think about work at all. Life offshore was geographically isolated and physically limited. People worked long hours and shared rooms so there was not much privacy. Social aspects (food and coffee-breaks) became very important.

Ties within the disciplines were described as strongest. Employees ranked themselves hierarchically according to discipline. Operators were ranked on top, automation workers in the middle and mechanics at the bottom. There were also ties beyond the hierarchies, such as the relationship between offshore middle managers and employees. One of the top managers described the relationship between offshore workers and middle managers as perhaps too close, because it lead to conflict avoidance.

” *People are only out there for 2 weeks, and often choose to avoid conflicts with co-workers or subordinates. (Top Manager, case B)*

The good work environment was seen as extremely important both by managers (top and middle) and employees. The BRA change process severely damaged the work environment. During the change process a full-blown conflict became known throughout the corporation. The problems during the change process affected the units’ image. Over time, top managers had to admit that their business unit was not as ready for change as they had believed, and their (and employees’) identification with a modern and innovative organization suffered a blow. The positive identity and image changed in a negative direction during the change process.

Organizational identity and image in business unit C

Business unit C represented another upstream division, which was described as old, complex and demanding in terms of personnel and competencies. The staff was also described as relatively old in terms of the average age. Management in the unit saw the staff as strong within their respective fields, but also as the ones who had chosen stability. Those interested in new ideas and new ways of working had left and worked at newer offshore installations (such as business unit B).

In the early phases of the change process, top managers described the business unit as having high status within the corporation due to its size and importance. At the same time however, they thought corporate headquarters viewed people in their unit as difficult and stubborn.



[Business Unit C] and another business unit are the large and "heavy" divisions, and a lot of weight is place on what is done here. (Assistant Project Leader, case C)



Our Project Leader is very qualified and he is characterized as a demanding customer. The things he came up with were not always popular. (Top Manager, case C)

Both managers and employees described close ties between management and union representatives. The working environment was therefore seen as very good and political processes were explicitly used and seen as legitimate by both management and union representatives.



There is political work at Business Unit C, but I don't think there are any hidden agendas... (Platform Manager, case C)

Like in case B, the image of this business unit also seemed to change over time. Top managers' descriptions of organizational image became more positive over time. Because business unit C ended up fighting the corporate decision, managers in the unit were very pleased when they felt they were getting acceptance from both headquarters and from other business units. The

signs of an improving image also resulted in more positive perceptions of the organizational identity.

” *BRA played down our input at first, but we ended up getting acceptance for 95% of our inputs after we went into more detail about what we actually meant and wanted. (Top Manager, case C)*

” *We felt we had support from the whole system. (CEO, case C)*

The main challenges for business unit C were described as reducing costs and keeping up operational regularity and safety as well as maintaining the good work environment.

Key Actors' Main Task

Organizational members' perceptions about organizational identity and image are likely to affect what they focus on in the change process, and what individuals and groups see as their main task. The main task of key actors, such as top managers and implementation project leaders, is particularly important to understand since key actors are likely to have a strong influence on decisions and actions in the change process.

Below, data from the three cases are analysed in terms of how key actors described their main task. What did the key actors see as their main purpose? The analysis shows that key actors either saw their main purpose as (1) getting corporate decisions implemented or (2) looking out for the business unit. This

is illustrated below, where the key actors, in the middle, choose either to side with the corporation or with the business unit. This may not be a deliberate or contradictory choice. Nonetheless it was fairly easy to identify which choice key actors made.

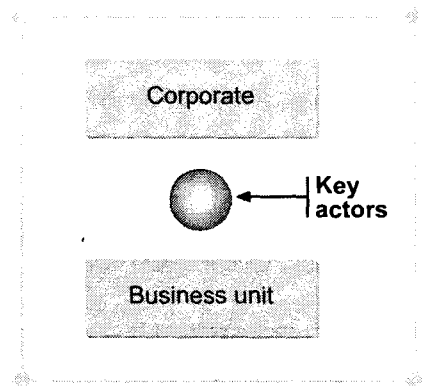


Figure 9: Key Actors' Main Task

In case A, there was a combination of corporate concerns and business unit

concerns among the key actors. Top management was mostly concerned with looking out for the business unit, while the project leader saw implementing the corporate decision as his main task. This was not surprising since the project leader was externally recruited and working for the corporate BRA program. The project leader only had influence for the six months during which he was physically at the business unit. Those months were focused on implementing the IT-system. Most of the time then, the focus was on protecting and looking out for the best for the business unit – if necessary at the expense of implementing the corporate decision about BRA.



Some of this will drive our costs up and we will lose flexibility...I am asking what kind of organizational improvements I can control? Are they only within operations and maintenance? (CEO, case A)

In the second case (case B), management and two internal project leaders saw their main purpose as implementing the changes. They might not have seen this as a choice between the business unit and the corporate decision however. The interviews suggest that they believed that the changes were in the business units' best interest and expected that the changes would go smoothly.



I believe in integrated teams. BRA/IBD requires maturation. But I am relaxed in terms of [case B]. I think we will manage. We have to think long-term benefits. (Implementation Project Leader, case B)



*Interviewer: Employees don't see the benefits of these changes.
Interviewee: I can't understand that our people don't want to be best.
(Implementation Project Leader, case B)*

In case C, both management and the internally appointed project leader viewed their main task as looking out for the business unit. This was particularly the case for the top manager who literally described this choice he was facing.



I could either try to implement a decision made at the corporate level and most likely watch the whole decision go down the drain, or I could fight those above me. (CEO, case C)



We have understood that to realize benefits in business unit C, we have to stop trying to reach IBD [and BRA] goals. We don't want to reach the IBD [and BRA] goals. The costs are too great. (CEO, case C)

How did corporate identity and image affect the behavior of key actors? Management in the first unit had described a geographical and psychological distance from corporate headquarters, thus it is not very surprising that they also distanced themselves from corporate decisions. In the second case, top managers had a closer relationship with corporate headquarters, as the favored unit, and it is likely that top managers wanted to show that this unit would remain one of the best business units in the corporation. In the last case, on the other hand, the corporate identity was one of an old heavy-weighter and top management here was not going to go along with anything corporate headquarters decided. This does not mean that management in case C was indifferent to their image in the corporate connection. Case C was also among the last to implement BRA and the corporate decision had been adjusted and goals lowered, so the risks involved in looking out for the business unit at the expense of implementing the corporate decision were reduced.

The data also suggest additional explanations for the different choices key actors make in terms of main tasks. They are linked to CRs about the future. The data indicate that key actors who are on their way up in the corporation, and thus unlikely to stay on in the business unit, view the change initiative as an opportunity to show what s/he can do. Expectations of career advancement outside of the business unit thus lead key actors to support the change initiative. In case B, where several key actors were promoted to higher positions within the corporation, a middle manager described this in the following way.



They [the top managers and project leaders] just wanted this implemented without considering how. ..They had tickets upward in the organization. I think so. This is my personal opinion. I think it was based on a career move... (Middle Manager, case B)

When, on the other hand, the key actor had just started to work with a business unit and expected to be there for a while, then s/he focused on building a relationship with the business unit, if necessary at the expense of implementing corporately made decisions. This was the case in the last business unit.

Summary of Construed Realities about Context

The analysis of how organizational members made sense of context focused on two contextual aspects: (1) organization identity and image and (2) key actors' main task in the change process. CRs about each business units' identity and image as well as the relationship to corporate headquarters were presented.

The table below summarizes organizational identities and images within the respective business units. Construed realities about organizational identity and image were to a large extent shared among members at different organizational levels within the business unit. Changes in identity and image over time occurred in case B and C as described in the table.

	Identity	Image	Relationship between BU and HQ
Case A	"Local" and geographically isolated unit. Good at value creation but need to learn to control costs.	Unimportant, peculiar and isolated.	Distant and unimportant
Case B	Modern and efficient organization with environmental profile and young, flexible workers.	Best-in-the-class Image damaged somewhat over time.	Close relationship between top management in BU and HQ
Case C	Old and complex organization. Very good internal cooperation between unions and management. Older workforce.	Large, important, but somewhat difficult and slow. Image improved over time.	Distant, but seen as important

Table 7: Construed Realities about Context in Case A, B, and C

CRs about context were also captured in descriptions of key actors' concerning what they perceived as their main task. In one business unit, key actors (top managers and implementation leaders) saw their main job as implementing the corporate decision (case B). In the two other business units (case A and C), key actors described their main job as looking out for the business unit and even making sure that corporate decisions did not destroy the business unit. Key

actors' CRs about main tasks are summed up in the illustrations below. As the illustration shows, corporate ambitions were slightly lowered in the last case.

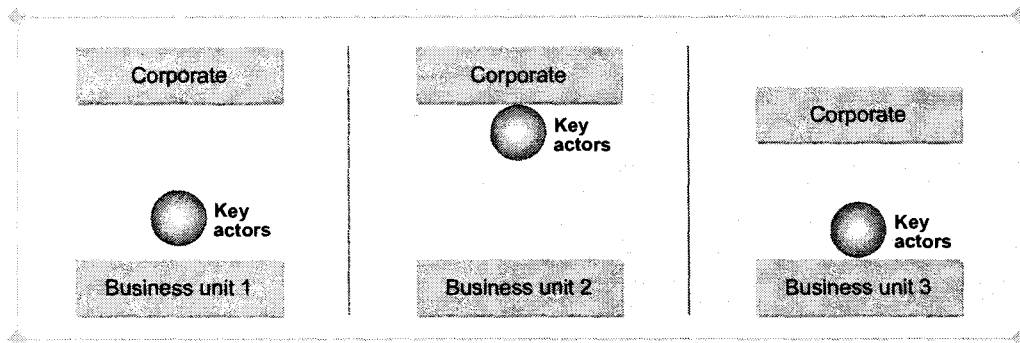


Figure 10: Summary of Key Actors' Main Task

Similar to the descriptions of identity and image, employees and managers within the business unit agreed in their descriptions about key actors' main task. Hence there were no significant gaps between organizational levels in terms of CRs about main tasks. As the next sections will show, CRs about context also affected how organizational members made sense of content and process.

6.3 Making Sense of Content

As a corporately planned strategic change reaches business unit level, a certain amount of sensemaking and interpretation is bound to take place (Gioia & Chittipeddi, 1991). This is particularly the case in large and complex organizations where it remains almost impossible to secure that all of the people who need to contribute in implementing the changes have been involved in formulating them. Often, people responsible for implementation at the business unit level have limited in-depth knowledge about that particular change initiative. In complex organizations, a corporate strategy will usually need to be put into the context of the business unit and made sense of in that particular context. At business unit level then, formulation at a more detailed and operational level takes place. Ideally, this formulation keeps within the boundaries of higher-level decisions, but often, corporate decisions are questioned in this local formulation process.

Based on the data, organizational members seemed to be making sense of content (a) in the attempt of understanding and interpreting the corporately formulated strategy and (b) in the local formulation that focused on translation and operationalization of the changes. The local formulation of BRA was necessary to customize the strategy for each particular business unit. Both of these processes leave room for multiple CRs about change content, particularly across organizational levels, but also over time.

The following quotes show that there were attempts at understanding and interpreting the content of the corporately formulated strategy in all of the three business units and at both managerial and employee levels.

Top management level:

” *Another business unit is struggling because they are spending so much time figuring things out that they need to hire people to do day-to-day business (Top Manager, case A)*

” *I would have expected that somebody else, who knew much about this [BRA], could have supported us 100%. But we are on our own. (Top Manager, case B)*

” *It was difficult because what we had to do was so unclear. We underestimated the task and the complexity (Top Manager, case B)*

” *The profits from this have been questioned all along...The OD part was difficult to estimate economic benefits from. It's more ideas you believe in, or trends that can improve our competencies (Top Manager, case C)*

Middle management and employee level:

” *How flat should the structure be – we worry about this... (Middle Manager, case A)*

” *There is very little described in BRA concerning roles and responsibilities. (Middle Manager, case B)*

” *BRA is too general. It is left up to the unit how to do this. (Employee, case B)*

” *In the beginning everyone was uncertain. What is in these new roles? What can each person do? (Middle Manager, case B)*

Evidently sensemaking occurs at all levels, but what does this result in? In chapter nine, sensemaking activities will be linked to modifications. In addition to interpreting strategic content, business units usually need to translate the corporately formulated strategy both in terms of making it more detailed and operationally oriented, but also to relate it to the current strategy in the business unit and perhaps to other change initiatives in the unit.

Local formulations: Case A

In business unit A, local formulations began in the last phase. Prior to that, the change process was focused on IT changes that were managed by an Implementation Project Leader appointed by corporate BRA. The local formulation process might serve to unify a business units' idea of what should be changed in the unit and how this should be done. Despite this lack of local formulation and decision-making in case A, managers (top and middle) and employees seemed to agree on what their organization should change based on the BRA initiative.

In the beginning the business unit was not very preoccupied with BRA. Few analyses were done prior to the start of the local implementation project. As discussed in the previous section, both managers and employees viewed their business unit as far from corporate headquarters, as an unimportant business unit in the corporate connection, and as fairly independent. In light of this perception of themselves, they were not overly eager to please corporate management, nor to follow decisions made and formulated by corporate headquarters. Nevertheless, early plans indicate that BRA would be implemented as intended and that most employees, at that time, were positive

towards the BRA initiative. A corporately administrated survey shows that in December 1997, over half of the asked employees believed that the economic goals of BRA were realistic and attainable (Vei & Føremelding, Mongstad).

Early plans (documents) from the implementation project show that within the allotted three month period, the project group aimed to implement all organizational (OD) and IT changes. After the project was demobilized, the line management would take over responsibility for realizing the benefits. The project's work was soon focused solely on IT however, and most managers and employees agreed with this narrowed focus in terms of change content.

”

In the beginning there were plans. It was said that BRA consists of 70% BRA and 30% SAP, but as reality came closer in terms of implementation, it was not only turned around, but became 100% SAP. (Employee, case A).

”

It has not been seen as important to implement all processes simultaneously. (Implementation Project Member, case A)

”

Organizationally we are very close to how BRA has drawn their map. (Employee, case A)

So, although included in the formalized plans, OD changes were neither pushed by local management nor by the Implementation Leader. As the third quote indicates, a major reason for this was that the organization members in case A saw their organization as already fulfilling most of the OD requirements in BRA. In addition, there were no apparent incentives linked to implementing OD changes either, except for the benefits the changes were supposed to bring. The onshore refinery had not linked BRA up with any incentives. Another change program (Drift 2000) included incentives that could have been linked up to BRA. This was what the upstream units did when they combined BRA with IBD (IBD is similar to Drift 2000 but aimed at upstream units).

In the last phase, when the local improvement project had been demobilized, three different local improvement groups took quite different approaches to further improvement work. Employees seemed to agree with these different

approaches. The first improvement group took on all OD changes in BRA and tried to work to get them implemented. The second group chose to focus on specific elements within BRA and got those implemented with the help of Shell. The third group opened up for broader changes again, and these changes were still in process when data collection ended. The following quote illustrates a change in the view on BRA. The quote from the last phase of the implementation process shows that BRA was no longer seen as just an IT-system.

” *BRA is much more than an IT system. It'll change the way we work.
(Middle Manager, case A)*

Both managers and employees saw challenges and problems with the new organizational ideas however.

” *BRA's model with small teams that own their own equipment is problematic because each individual is supposed to have several roles. There is a high turnover rate at [business unit A], which means that we have a problem in terms of broad competence in our workers.
(Improvement Group Member, case A)*

The table below illustrates how beliefs about what should be changed (the change content) varied over time in the business unit. It switched between broadly and narrowly focused changes. There was no obvious disagreement between organizational levels however. Most organizational members, regardless of position and level, seemed to agree about what the changes meant and what this demanded in terms of changes for the business unit.

	Phase I	Phase II	Phase III
Business unit: Top Managers	A corporately decided initiative to reduce costs by making all business units similar	For this business unit BRA is basically about a new IT system	The organization will have to make some changes such as introduce new work processes and teams. Action is needed! Shell provides an opportunity to get some changes implemented (O&M). Other OD changes need to be evaluated.
Business unit: Middle Managers & Employees	BRA will reduce costs. Mostly positive reactions towards changes.	BRA is SAP (the IT system)	Organizational changes are necessary, but there are some problems. Shell has the solutions for operations and maintenance (O&M)

Table 8: Construed Realities about Content in Case A

Local formulations: Case B

In the second business unit much more preparatory work was done prior to the start-up of the local implementation project. Through this preparatory work, CRs about content can be identified. Top managers in this business unit were clearly aiming for a radical (deep) and revolutionary (fast) change. Since this business unit was young and fairly modern in terms of how it was organized, top managers saw this as a realistic goal. They believed employees were motivated and wanted to stay in their “best in class” league within the corporation. The second quote shows that this perceptions of change capability changed over time.



Our business unit is known for our efficiency... We are best in class in McKinsey evaluations... we have been used as an example in Statoil (Middle Manager, case B)



We are much less capable of change than many of us had thought and expected. (Middle Manager, case B)

The BRA change was immediately coupled with another change initiative called IBD. IBD and BRA changes were logically linked and reinforced each other. IBD also provided economic incentives for employees if they succeeded in the organizational changes. Parallel with local formulations in case B, a corporate group (UPN – The Upstream Division in Norway) were working on a

report with some guidelines for upstream divisions in terms of implementation of BRA and IBD.

In the business unit, work groups that represented all organizational levels were established. In this way employees were involved in the local formulation of changes. It was decided to implement all of the OD changes within BRA and IBD quickly a few months prior to the IT implementation. This decision to implement all OD changes was made despite the fact that the UPN report opened up for more flexible solutions. The reports based on the preparatory analyses indicated that the work had been done by unified and representative groups (e.g. SLP New Model). As the below quote shows, it later became clear that employees did not always agree with the decisions that were made in the preparatory phase.



I was in one of the work groups, and there weren't many choices we could make. Our CEO said that we could find the answers or he would make the decisions. (Middle Manager, case B)



We have to be loyal to the decision, but we don't have to agree. (Middle Manager, case B)

These contradictory views about content became clear in phase two, when implementation of organizational changes had been initiated. Management then faced loud complaints about the change content as well as the change process. It is important to point out that these disagreements did not surface until employees had hands-on experience with the changes, i.e. a few months after implementation of OD changes.

The descriptions of and reactions to content were at a rather personal and emotional level. Employees struggled to find out what the changes actually involved, what this implied for them and what this would mean for themselves and their work situation. The descriptions employees gave of why the changes were being made and what the changes actually meant were quite different from descriptions by top managers.

” *Management is trying to break up the disciplines. Fortunately they haven't managed. We need the discipline network to exchange experiences and to develop core competencies within our fields. (Employee, case B)*

” *We have been kept in the dark since day one because they wanted to get rid of us. (Employee about his position, case B)*

” *When I have gone to school and trained to be an automatician, then I see no reason why a mechanic should be doing my job. He should do what he has been trained to do. (Employee, case B)*

” *It is difficult to see any benefits from this. We have understood that the goal is to cut down the number of employees. (Employee, case B)*

In the last phase, top managers and employees (including middle managers) moved closer to each other in terms of their descriptions of change content. Employees were then expressing increased belief in the change process and in management again.

” *The new Operations Manager had to ask the Platform Managers and middle managers offshore if they believed in this. He thinks they do believe in the work planned for the fall 2000 (Middle Manager, case B in the fall 2000)*

The relationship between employees and top managers improved when the top managers agreed to slow down the process and signaled that some of the change initiatives would be reconsidered and probably abandoned. A consensus in terms of change content for the business unit was reached through an evaluation which was conducted one year after implementation.

In case B, CRs about what should be changed in the unit also varied over *time*. Employees were not so far from the top managers in the early phases, but once implementation had begun they had quite a different opinion of what should be changed in the organization. Top managers tried to stick to their view, but finally moved towards the employee's views.

Table nine summarizes CRs about content at the different organizational levels and over time in case B.

	Phase I	Phase II	Phase III
Business unit: Top Managers	BRA means an even more modern organization with truly multidisciplinary teams. This will give employees the opportunity to broaden their skills, increase their flexibility, and gain more responsibilities.	BRA/IBD is about empowering and upgrading the skills of the employees. It requires that employees are active in gathering information and taking control.	Some of the elements in BRA/IBD (such as the team focus and responsibility at lowest level) are problematic because they challenge existing values based on specialization and onshore support and they threaten well established work and personal relationships.
Business unit: Middle Managers & Employees	BRA and IBD are good ideas, but there are some problems that need to be worked out.	BRA/IBD are high-flying abstract ideas which are not applicable at the operational level. BRA is an excuse to split up networks, and to make fewer people do more work. The team focus will destroy discipline based specialization and competence.	Some of the elements in BRA/IBD are okay (SAP), others are more problematic (such as the focus on teams at the expense of disciplines).

Table 9: Construed Realities about Content in Case B

Local formulations: Case C

In business unit C, a considerable amount of time was spent early in the process to formulate the local strategy. Extensive preparatory analyses were performed to indicate what and how changes would be made in the unit. Like in case B, and indeed most upstream business units, BRA was linked with IBD to simplify things and to add pressure to both of the change initiatives.

Preparatory work in work groups resulted in a suggested organizational model, which was very much in line with the initial corporate model. The difference was that it involved a step-wise process rather than an all-at-once change process. The changes would thereby be introduced step-wise and over a longer time period. Work groups represented all levels of the organization, and thus the suggested model supposedly reflected agreement by managers (top and middle) and employees. However, as in the case B, there were some disagreements within the group that did not surface.

” *The disagreements did not show up in the report, but there were different opinions within the group and this should probably have been made explicit. Some of the group members were strongly against what we decided on...a lot of people argued we already had the optimal organization. (Top Manager, case C)*

After the suggested model was officially announced employees made it clear that they did not agree with this. This is different from the case B where reactions came after implementation. Here, the local formulation process was not yet over when the reactions came.

” *We released the report [S&L report containing the new organizational model] after Christmas and it created a storm onshore and a hurricane offshore.” (Implementation Project Leader, case C)*

” *The organization did not like how the work group took this process so far in the direction of satisfying the BRA principles... (Employee and Union leader, case C)*

Management quickly complied to the employees' wishes and consensus was reached on a new decision for the locally formulated strategy through clever political processes. This consensus continued into the third phase. The different views on the change content were described as the reason for making modifications. Employees argued on a factual basis and presented logical and factual reasoning in a formal report. Management explained that they looked upon their employees as competent and reasonable people, and if they were so much against these changes, then management would not go through with the initiative.

” *In a large organization it becomes impossible to change things without the employees behind the changes...It is very difficult as a manager to argue against people with 10-20 years of experience. We have respect for our employees, we believe in them, and they have the competence at a detailed level. (Top Manager, case C)*

” *We have such competent people in our organization and if they don't want to do this, we cannot change the organization. (Top Manager, case C)*

The table below shows that the CRs about what should be changed varied both between organizational levels and over time. However, the apparent differences of opinion between organizational levels disguised rather similar sceptical views about the changes. Interviews and observations do not support the conflicting views about BRA/IBD content at different organizational levels. Employees were sceptical towards BRA and IBD and so was top management. In this unit, there were two different CEOs in charge during the change process. Both explicitly expressed doubts about the BRA/IBD changes.

” NN [The first CEO] was a strong leader who reached his goals. He was uncertain when it came to BRA and he was the one who introduced the stepwise implementation in GF. (Top Manager about the first CEO, case C)

” We would have never implemented this 100% (Second CEO, case C)

So, the dramatic internal differences may have been exaggerated for political purposes vis-à-vis corporate management. This will be discussed further in the next chapter, when CRs are linked to modifications.

	Phase I	Phase II	Phase III
Business unit: Top Managers	<p>BRA/IBD include several problems. Strong scepticism at CEO level.</p> <p>Work groups see possibilities in BRA/IBD and propose to implement all changes but in a gradual fashion, to avoid shocking the organization.</p>	<p>Some elements in BRA/IBD are seen as beneficial while others are too challenging and costly.</p>	<p>Some elements in BRA/IBD are seen as beneficial while others are too challenging and costly.</p>
Business unit: Middle Managers & Employees	<p>BRA/IBD includes several problems. Initial scepticism becomes stronger once organizational model is presented.</p>	<p>Some elements in BRA/IBD are acceptable (such as SAP, and certain aspects of teamwork) while others are not.</p>	<p>Some elements in BRA/IBD are acceptable (such as SAP, and certain aspects of teamwork) while others are not.</p>

Table 10: Construed Realities about Content in Case C

Interestingly, an evaluation in business unit C showed that when asked about the BRA/IBD changes one year after implementation, employees still voiced

their initial scepticism based on the corporate BRA/IBD strategy. This indicates that employees' CRs remained quite static in this business unit, despite all of the commotion caused by employees to successfully and dramatically modify the initial suggestions into a local version of BRA/IBD.

Summary of construed realities about content

The data analysis showed clear evidence of sensemaking about content at all levels of the organization and over time. Multiple CRs across organizational levels were found, as well as changes in CRs over time.

In case A there was no evident divergence in CR's between different organizational levels, but then again there were hardly any changes in the organization at that time. Most of the sensemaking about BRA occurred in the last phase, when they started working on organizational changes. In the second and third cases (B and C) on the other hand, sensemaking began in the first phase and continued through all of the phases. In these two cases, CRs about content began to diverge over time. In case B, management and employee descriptions of the change initiative appeared to diverge after initiation of OD changes, when the changes had begun to affect work life. In case C, a similar discrepancy appeared earlier in the change process, although it can be questioned whether or not there was any real disagreement with the business unit concerning change content. This will be elaborated in the next chapter.

The CRs changed over time, particularly at management level. Over time, top managers in the three business units increasingly understood the problems employees had with the changes and the potential consequences of pushing the changes too strongly. Employees changed CRs over time much less than expected. Employees' arguments against the changes were surprisingly similar across the three cases and over the three-year period. Even employees within business units that had modified initial plans quite substantially, continued referring to BRA and IBD as a rigid and top-down change initiative. When management met employees' concerns, then naturally employees were more willing to go along with the changes, but opinions and descriptions of the BRA/IBD changes did not necessarily change.

6.4 Making Sense of Process

The importance of probing how organizational members make sense of the change content may seem more obvious than exploring how they describe the change process. The tentative research model suggested that the change process affects change content and that it can cause modifications in content.

Research on procedural justice has furthermore shown that *perceptions* of a change process can be crucial in terms of how affected individuals view the outcome of the process (Greenberg, 1990; Kim & Mauborgne, 1997; Konovsky, 2000; Novelli, Kirkman, & Shapiro, 1995; Shapiro & Brett, 1993; Tyler & Bies, 1990)). As mentioned in chapter five, all three cases studied here ended up implementing approximately the same degree of changes, but the change processes were quite different. Comparison of the processes in the three cases shows that the change process in case B involved more turmoil and was more destructive for the work environment.

Procedural justice theory posits that although individuals may disagree with the outcome (which in this case is closely linked with change content), they are more likely to accept it if the process leading up to the outcome has been fair. Descriptions of how the change process has evolved may therefore be important for two reasons. (1) Perceptions of the process are linked with reactions to content. (2) Perceptions of the process affect action in the implementation process. So, even if there are no obvious disagreements about content, process issues may cause reactions to content and actions aimed at modifying the content. Perceptions and descriptions of the change process are also important in a long-term perspective, because they are likely to affect employees' views of future change processes.

CRs about the change process are presented for each case. The main focus in the following presentation is on each respective business unit. Sometimes however, views of the corporate change process affected the change process within the business unit. Therefore, views concerning the corporate change process will be described where this is relevant.

Descriptions of the change process in Case A

Three factors in terms of CRs about process characterized descriptions about the change process in the first business unit: (1) Descriptions of the change process were similar across organizational levels within the business unit. (2) Corporate members described the change process in the business unit differently than business unit members. (3) Business unit members described the *corporate* level change process differently over time

There were no significant differences in descriptions about the process across organizational levels within the business unit. Top and middle managers as well as employees were telling the same story concerning the change process in the unit. This consistency across organizational levels can be tied to earlier findings on similarities between how managers and employees made sense of content. The consistency between managers and employees persisted over time, although their views about the change process developed over time. Corporate staff members, however, described the change process in the unit differently. Hence the discrepancy in CRs in case A was between corporate headquarters and the business unit. Recall that key actors within management saw their main purpose as looking out for the unit, so a discrepancy between headquarters and the business unit on process descriptions is not surprising.

Phase I was described by business unit members as a period where they were involved in BRA through the corporate BRA program called BRA Basis. This work was done at headquarters. In terms of preparing for implementation in the business unit, not much was done. Managers and employees alike explained that they had already done most of the organizational changes through a change program in 1996 (OD 96). This construed reality about what needed to be done is closely linked to making sense of content. The quote below illustrates how phase I was viewed.



*.....our unit had put a lot of resources into BRA Basis. We were pretty well prepared. With OD 96 a lot of work had been done on work processes and this work was in accordance with the new ideas – we didn't need to go through the AS-IS phase [the preparatory phase]. There was already agreement between what we did and the BRA principles”
(Middle Manager, case A)*

The citation indicates that because organizational members viewed their way of organizing as similar to a BRA organization, no large OD changes were needed and hence no OD process was needed to prepare the business unit.

In phase II the local implementation project group was in charge. It included people from the corporate BRA project, people from the business unit, as well as some representatives of other business units. This combination was deliberate and the purpose was to ensure experience transfer through the corporate BRA program. Project steering with tight deadlines was employed. Among other things, the project delivered extensive IT training for all employees. Communication between the business unit and corporate headquarters concerning BRA was channeled through the project. While early plans from the project included OD changes, the Project Leader made it clear that the group had to focus on getting IT implemented.

” *The Implementation Project was not supposed to do anything other than implement SAP...I worked in the project towards the end...The Project Leader was extremely clear on this. We would implement SAP because that was what we were being measured against.... It was made very clear that we would be measured on this. (Employee, case A)*

While the project group viewed the implementation in phase two as a success, the below citation suggests that in retrospect, not all people were pleased with what the project group had done.

” *I don't think it's right when a centrally driven project, such as BRA/SAP, sends a big project group to implement the system only and then leaves the rest to a local group. I don't think this was the intention, but this was how it turned out fairly early in the process. (Employee, case A)*

When the project was demobilized, OD changes were handed over to a local group. In light of what organizational members had said previously regarding already having the organizational changes in place, this should not have represented any major problem. However, more and more people were

realizing that they would have to make some OD changes. In the third phase, the focus on OD changes began. Three distinct local improvement groups - each with a different leader - worked subsequently on OD changes. The first group worked based on the recognition that not all of BRA had been implemented. The local implementation project had handed over a number of issues to this group, and the majority of the issues concerned OD changes. For about six months the group tried to figure out what to change and how to go about it. The work resulted in an updated OD plan and a draft for an action plan. During this work, an element of flexibility became evident in terms of how members of the improvement group viewed the corporate change process. As opposed to the IT changes, which had been described as top-down and tightly controlled, the changes were no longer perceived as tightly steered from corporate headquarters.

” *A practical use of BRA must be allowed. The theory has to be applicable in practice. (Improvement Group Leader I, case A)*

” *It's a question of how far we want to go in terms of responsibility at the lowest level. Should we go all the way like BRA suggests? We have to take a stand to this here at [case A]. (Improvement Group member, case A)*

” *Well what is decided centrally has to be taken with a grain of salt. We have to decide how we are going to do this. (Improvement Group Leader I, case A. Emphasis added)*

This view was reinforced by statements made by members of the corporate BRA Program at a meeting between the business unit and corporate BRA.

” *Corporate BRA member: Which work processes and governance principles do you [the business unit] want to implement?*

Improvement Group Leader I, case A: "I didn't know we had a choice. Haha."

The lack of corporate control over the OD changes was also evident through the absence of any involvement or support from corporate BRA during phase

three. With the exception of some initial contact, corporate BRA members were not involved in any of the changes that were planned and implemented in phase three. The following statement was made in the month after implementation of IT.

” *BRA has abandoned us. They are not interested in our experiences.*
(Employee, case A in Feb.99)

This first improvement group had a number of parallel issues to deal with and in retrospect it was described as slow-paced, democratic, and perhaps a too open process. Not much came out of it in terms of actual changes in the organization, although plans (OD plan, action plan) were sketched out.

” *It has taken a long time without anything specific to show for it.*
(Employee, case A)

The second improvement group quickly narrowed the focus to include only changes within operations and maintenance (O&M). A few top managers were unhappy about this narrowed focus, but in retrospect the necessity of focusing was explained by a crisis in the refinery industry.

” *We had to save money! We couldn't keep working at changing the culture. That costs money. We were in a completely different situation.*
(Improvement Group Leader III, case A)

The local change initiative no longer had any links to corporate BRA and the changes were never referred to as BRA changes. The change program was called the MERIT program, but it included many of the same ideas as BRA. The CEO in case A said the following concerning the narrowed focus and cooperation with Shell.

” *This is all in line with BRA. We want to invite BRA to join us. This is not in conflict with BRA principles.* (CEO, case A).

The view among managers and employees within the business unit was that BRA had not been able to provide necessary tools and techniques for implementing organizational changes. Instead the unit drew on experiences from Shell. The corporation had signed a formal cooperation with Shell, and the change initiative proceeded in a project steered fashion with preparatory analyses (similar to those suggested by corporate BRA, but never performed by this business unit) and with Shell highly involved through the whole change process.

” *The Action Plan [from improvement group 1] is too broad and glossy – we need a specific and concise plan. (Improvement Group Leader II, case A, Aug.99)*

” *There was a big change when the second improvement leader took over. Everything became more specified. But this was also the time at which Shell entered the picture and new pressure was put into motion. (Key actor in implementation project and improvement group I and II, case A)*

The new improvement group leader agreed with the CEO that MERIT changes were not in conflict with BRA. However, he did not invite corporate BRA people but kept them at arms length.

” *BRA is not in the picture any more. They wanted a guy here now that we are doing the Shell process, but we said no, because we are the ones paying for this. (Improvement Group Leader II, case A)*

The last improvement group opened up for broader issues again. The group leader explained that they would reconsider cultural aspects and re-evaluate the value chain. These ideas were similar to the arguments that created the basis for BRA. The value chain in case A had not been affected however, since only some of the changes in BRA had been implemented.

While descriptions of the change process showed that managers and employees basically agreed on how the change proceeded in all three phases, corporate level managers described the change process in this unit quite differently.

Corporate managers complained that the unit had not done the required and necessary preparatory work and there was talk in the corporate BRA project about whether or not the unit should be allowed to start up the local implementation project. Corporate BRA was responsible for launching and partly staffing the local project group. They decided to let the unit start implementation, despite the lack of sufficient preparatory work. Once the local implementation project was in place, the corporate BRA people struggled to get legitimacy. Particularly the change management group, which would have been central in terms of OD changes, struggled to get legitimacy in the unit and they were practically shut out of the change process even during phase II.

Business unit managers did not think the corporate BRA people had enough competence about the refinery business and therefore refused to listen to them. While the business unit complained that corporate BRA people could not deliver the necessary tools and techniques, they were not allowing the corporate people access to learn about the local context and business. From the corporate position it became impossible to deliver any customized tools or techniques for implementation of organizational changes. This discrepancy between corporate headquarters and the business unit in terms of how the change process was viewed did not improve the somewhat strained relationship.

Members within the business unit changed their perceptions of the *corporate* change process over time. They saw BRA as more optional as time went by. In the early phases BRA changes were described as top-down. Managers as well as employees did not sense that they had any choice but to implement the changes.



It seems that BRA has not been very open for input. A finished concept has been sent out to the unit and this was how it was supposed to be done. But then some holes appear here and there and this creates frustration...It was difficult to move from transparencies to what this really meant in practice... (Implementation Project Member, case A)

Particularly the IT changes were referred to as forced from the top. Once the change process got started however, signals of more flexible solutions were

picked up both from corporate members and from top managers in the business unit. The optional change issues were clearly linked to the organizational changes. OD changes were introduced late in this business unit, and the perceptions of a more optional change process appeared over time.

The table below summarizes the CRs about process case A:

	Phase I	Phase II	Phase III
About the business unit change process			
Corporate members	The business unit is not putting any resources or work into BRA change process.	The IT change process is good, but the change process lacks the OD component.	The Business unit is doing its own thing. No connection or control over OD change process.
Business unit members	The business unit contributed through corporate BRA project. No need for preparatory work in the business unit.	The local implementation project runs the process with focus on IT. No need for OD changes	Need to introduce some OD changes but the corporate BRA program locks tools and techniques for this. Three different improvement groups work hard to implement OD changes.
About the corporate change process:			
Business unit members	Top-steered and corporately controlled process	Top-steered and corporately controlled process	More flexible change process. Possible to affect OD changes at business unit level.

Table 11: Construed Realities about Process in Case A

Descriptions of the change process in Case B

Descriptions of the change process in the second business unit showed (1) different CRs about the change process within the business unit. Employees and top managers disagreed about what happened in the change process. In addition, (2) descriptions of the change process in the business unit changed over time – particularly for top managers; and (3) organizational members described the *corporate* change process differently over time.

There was a clear discrepancy between how top managers and employees (including middle managers) retrospectively described the early phases of the changes process. Recall that there were no signs of significant disagreements in terms of the *content* of BRA in the initial phase. Preparatory analyses performed by ad hoc work groups presented a suggested model for new

organization, and a decision was made to go for a new organization fully in line with IBD and BRA principles. Reactions to both the change process and content came later – during phase two. As time passed, descriptions of the change process in the unit changed somewhat. Particularly top managers began to describe the early change process much more self-critically over time.

At first however, top managers described this early period as open and involving. The local implementation project, named SLEBRA, had two leaders who could both be considered as local or internal. They had in-depth knowledge of the unit and a history within the unit. One leader held responsibility for IT changes and the other for OD changes. In the first phase a great deal of preparatory OD work was done. Representative work groups reported to SLEBRA, and a number of employees were involved in the different work groups.

The unit chose to work on a new organizational model by having a broadly represented group conducting seminars. Three seminars, each lasting for three days were supposed to end up in a suggested new organizational model. While the OD work group was working on solutions for integrated teams, there was also some “unofficial” work done offshore to come up with solutions. One of the offshore shifts made an informal proposition, based on their own initiative, and the proposition was widely supported by the employees. The OD group was struggling with some issues and considered adapting the offshore groups’ solution. A top manager within the business unit then made it clear that the solution from the offshore group could not be applied. One of the members of the official OD group explains:

“ It [the offshore groups’ proposition] came as a wild card from the side and it did not fit in to the model we had at that time”. At this time, the Operations Manager cut through and made it clear that resources were to be placed in the teams and not with the disciplines. (Key member of the Local Implementation Project, case B)

“ Employees lacked general BRA knowledge. Without this basic competence, comments on suggestions were bound to be made on a very flawed basis. (Project Member, Implementation Project in case B)

There were some delays in getting a suggested organizational model on the table. According to one of the key actors in the unit, one reason the OD group did not want to make a decision was an initiative by case B, to get common guidelines for implementation of BRA/IBD from the Norwegian Upstream Division (UPN – the division consisting all national upstream business units) . The result of this work was expected to affect the choice of organization model in the business unit.

An organizational model based on BRA/IBD was presented in case B a few months after the UPN report was finished. The UPN report gave no explicit guidelines for how business units should apply BRA and IBD, but it opened up for flexible solutions and emphasized the broader and more vision-based goals of e.g. integrated teams. The proposed organizational model in the business unit was surprisingly unaffected by the UPN decision. It was based on the initial BRA and IBD plans and it was more ambitious than the UPN report actually required. The decision on a new organizational model triggered a new phase of working out details. But first the decision was quality assured. Three managers created a “start-up document”, which described the details of how the organization would be divided into integrated teams and how the platform would be divided into systems. This work ended up in an OD document referred to as “the Bible”. The “bible” provided in-depth details of how to move from old organization to new organization, i.e. the OD component of BRA.



The document describes necessary details concerning the transfer from today's discipline oriented organization (the Sleipner model) to a team-oriented organization (BRA/IBD). (The bible, line 114).

While top managers described the first phase as open and involving, middle managers and employees reported that there had been little involvement and hardly any possibilities to affect the change process. Those who said they had a chance at being involved described situations where they perceived that they were invited to provide input, but their input was always discarded. Many employees referred to the solutions that had been worked out unofficially offshore, but there were also references to the work groups. In both cases the involvement was seen as symbolic rather than real.

” ... even if we had a lot of work groups and committees and all that.... this was in place beforehand....(Middle Manager, case B)

” The changes are perceived as forced and that creates resistance. People only do a minimum. We cannot affect anything. The signals are too strong from above. We can only be in it for the ride. A lot of good input has just been ignored. (Employee, case B)

These statements about the preparatory phase were made during the second phase. After all of the preparatory work was completed, phase two began with the start-up of a new organizational model. During phase two, the focus of the local implementation project turned to implementing IT changes. Responsibility for realizing the benefits of the organizational changes was handed over to the line management. A few months after the new organization was implemented, employees and middle managers seemed to be in a state of shock. Decisions were not being made and people were paralyzed due to the changes. No one was taking charge of the change process. Since the local implementation project, SLEBRA, had moved on to work on the IT changes, OD people had been promoted or gone back to their previous jobs. Employees described this period in the following ways:

” When we had training we would ask “what do we do now?” and then we were told that our division had to decide by itself. Who in our division decides this?” (Employee about phase II, case B)

” A classical mistake that was done was to have a group work at this “start document” and then transfer these people to other positions. Who is there to answer questions then? (Employee, case B).

The top managers in the business unit also described the period as a time when no one was taking charge. They expressed disappointment in middle management and were asking why middle managers failed to take responsibility and get involved. The middle managers, on the other hand, felt that they were on their own and that they were incompetent in managing the

change process. They were also uncertain about how much charge they could take based on their new role as coaches. Middle managers were asking why the top managers or project people refused to support them or take charge of the change process. There were training seminars during this period, but most of the training concerned the new IT-system. Other types of seminars were criticized as too focused on keeping the pressure on.

”

They focused on keeping up the pressure without supporting - which was what was needed. The human aspects of this were not discussed. I was at the meetings to get support and additional knowledge, but all I got was more frustrated” (Middle Manager, case B).

When middle management cried for help and assistance, the lack of support from top management was not based on ignorance. Top management had not expected middle management to react with paralysis. When they did, then they were deliberately left alone by top management, based on the belief that this might force them to take responsibility.

”

We demobilized the project in May but kept the pressure on until the end. You can't use a project organization to do line work, then you'll never get it right. (Implementation Leader for OD, case B)

The quote illustrates that top management and key actors saw a need for line management to take over responsibility of the change process. During this time, there was talk both at the top level within the business unit and at corporate level about what to do with the middle managers and employees who were unable or unwilling to change. Statements such as “does/should this organization have room for employees who are unable to change?” could be heard. The data collected for this dissertation shows no evidence that this was communicated downwards in the organization, just that these types of questions were debated at higher levels. These types of statements indicate that, at this time, most top managers did not understand how employees experienced the change. Top managers tended to refer to lower levels as difficult and resisting changes and therefore there was little willingness to support middle and lower organizational levels.

Towards the end of phase two, the frustration hit the ceiling. Employees, middle managers, and top managers all described how the pressure and tempo had to be reduced somewhat in May and June. For a brief three-week period (during revision stop) the old organizational model was reintroduced and employees were very happy about this. Earlier negotiations had resulted in an agreement to use the old way of organizing during revision stop because the three week shut-down required extremely efficient and well-known work routines. A new way of working might not yet be as efficient. During the summer, support was increased as two change facilitators were appointed to act as process advisors. Top management further imposed some control over the process by initiating evaluations during the change process. Three evaluations of the change process were planned in addition to a larger evaluation, which would be conducted one year after implementation of OD changes (The January-Evaluation). Unlike the three “process-evaluations”, the January Evaluation had been planned from the start. The three process evaluations were introduced during the change process in order to follow the development of the process more closely and to correct and adjust minor things. Management made it clear that major adjustments would not be done until after the one-year trial period.

In line with the employees’ construed reality that has been described so far, the May Evaluation (the first evaluation) showed that employees felt the changes were going too fast; there was a lot of chaos and frustration; inconsistent management and a lack of upward communication; no trust in corporate top management; and motivation and work environment was suffering. In retrospect, one of the key actors in the implementation project no longer blamed the middle managers but said:

” *In the period between January and March 2000 it seems like people thought we could just push the button...we had no one to continue the process. There was no active support from onshore. (Assistant Project Leader, case B)*

Another top manager had begun to question some of the assumptions underlying the BRA/IBD change initiatives.



A flat organizational model rests on a fundamental assumption that everyone in the organization wants to see the big picture and wants to develop within the organization. But this is not necessarily so. (Top Manager, case B)

Descriptions about the last phase of the change process showed less of a discrepancy between manager and employee views. Both groups described how the process had been slowed down, and how they almost had to start over again after having gone back to the old way of working for three weeks. A new Operations Manager replaced the previous one (who was promoted) in the middle of phase two. The new Operations Manager contributed to decreasing the divergent CRs in terms of both process and content by reaching out to the employees, slowing down the process, and increasing support. Unlike the implementation leaders and the previous Operations Manager, who had seen their main task as implementing the corporate decision, the new Operations Manager saw his main task as looking out for the business unit. He attempted to rebuild trust between middle management and top management and appointed a full-time implementation coordinator. The coordinator was a previous middle manager that held legitimacy within the organization. He was to work closely with the two change facilitators. Although things were slowed down, management officially continued to emphasize that no adjustments would be made within the first year. Unofficially however, employees were getting hints at possibilities of adjustments.



Managers have indicated that we might go back to the old organization. It's almost like before, because the changes are on paper, but we don't need to follow them. (Employee, case B)

As expected, the January Evaluation eliminated some of the change elements in BRA and IBD. Because of the dissatisfaction with the early process, management was pressured both in terms of who would perform the one-year evaluation, and the focus and results of the evaluation. The January Evaluation became extremely important for showing employees a fair process this time around.



I hope it's done right this time [about phase III] and that they [management in the business unit] will play with open cards and have an open and honest agenda" (Middle Manager, case B)

As opposed to business unit one, this case revealed a discrepancy between CRs within the business unit. The different CRs concerning process were extremely damaging to the work environment as they created mistrust between top management and the rest of the organization. Data includes only a few statements from Corporate BRA members, but these statements indicate that corporate members held a similar view of the change process as the top managers within the unit. This assumption is strengthened by the fact that initially, corporate members had great hopes for this unit and encouraged us to collect data in this unit. Organizational members within the central BRA Project expected that business unit B would be successful in implementation and that they would go far in terms of changes.

CRs about the corporate change process were fairly static. The change process was seen as extremely rigid and top-down managed until the new Operations Manager slowed things down and indicated that modifications could be expected as a result of the January Evaluation. Only in phase III did employees and managers really begin to believe in possibilities for local variations of BRA. This was despite several signals, earlier in the process, about possibilities for flexible solutions from the UPN level (corporate) and from other business units that were implementing BRA and IBD.

The tables below summarize the CRs about process case B:

	Phase I	Phase II	Phase III
Construed realities about the business unit change process			
Corporate managers and business unit top managers	Open and involving process	Employees resist changes because they are unwilling to change. Need to increase pressure.	The process needs to be slowed down. Too much has been done too fast. Employees were not ready. Support needs to be increased.
Business unit Middle managers and employees	Top-steered process	The changes are impossible to effectuate because they are unclear. Some of the decisions that were made were wrong and the change process has been unfair. Top management can not be trusted after this process. They have not given any support.	The process needs to be slowed down. Trust in (partly new) management is slowly regained.
Construed realities about the corporate change process:			
Business unit members	Top-steered and corporately controlled process	Top-steered and corporately controlled process	More flexible change process. Possible to affect OD changes at business unit level.

Table 12: Construed Realities about Process in Case B

Descriptions of the change process in Case C

The last case in this study was one of the last business units that implemented BRA. Similar to case A, the most significant discrepancy in CRs was between the business unit and corporate level. Although the process involved several internal conflicts about content, top managers and employees described the process in a similar manner. There were no significant changes in CRs over time in this unit. CRs about process included: (1) Corporate members described the change process in the business unit differently from business unit members. (2) Employees and managers in the business gave similar descriptions of the change process. (3) The descriptions of both the local and the corporate change process were fairly stable over time.

Overall, the change process in business unit C can be characterized as involving much hard work, a lot of political processes, and scepticism towards BRA and IBD at all levels. At the same time, the process was described as stable and continuous because the Implementation Leader and some of the other key actors were involved from phase one to phase three, which meant a

time period of three to four years. At a general level of description both corporate level members and business level members agreed.

Business unit members described the preparation phase as filled with analyses. Work groups tried to come up with a good solution for a new organizational model. Similar to case B, here too were stories about how opposition in the early phases had been quieted down and won over. However, this was never a major issue of concern in the unit since employees had their say right after the report with the new organizational model was released. The new organizational model was very much in line with BRA/IBD intentions, although the plan was to implement the changes over a longer time period and in four steps. Most employees focused on the proposed changes however, and did not grasp the long time frame that was suggested.

” *This report [the S&L report] was similar to the [case B] model. But we never intended to implement everything overnight. It was a stepwise model which we intended to use three years on implementing. (Project Leader, case C)*

After the report had been released, a representative group was appointed to conduct a consequence analysis. Consequence Analyses were standard procedure and a part of best-practice requirements in large-scale organizational changes in the corporation. The purpose was to evaluate the consequences of performing the suggested changes. Several of the other business units had skipped this analysis. Managers and employees in the business unit described how a representative group of eight people suddenly exploded into almost sixty people working on the analysis. The report that came out of this analysis reflected employees' views, much to the frustration of the group leader who came from the corporate change management group. The Consequence Analysis presented 120 detailed concerns about the new organizational model - all of them represented negative consequences.

” *What surprised us was that no positive effects of BRA were included in the analysis. They said they had looked for positive effects but couldn't find any. (Implementation Project Leader, case C)*

At the time, the CEO who had pushed for the step-wise model had left the unit for another position in the company, and there was no new CEO in place yet. After 3-4 months without a CEO, a new CEO was in place and he was also explicitly doubtful about BRA/IBD. This was at a time when many other business units were struggling with BRA/IBD implementation and the UPN report had been on the table for six months. Recall that the UPN report basically opened up for flexibility and variations in how far the business units wanted to go in terms of several of the BRA/IBD changes. As mentioned in the previous section, this did not seem to affect the organizational model chosen in the case B. In this case, however, the new CEO had doubts about BRA and IBD and the suggestions in the UPN report were more actively used in this business unit.

The CEO decided to view the Consequence Analysis as the voice of the employees. The CEO and the Implementation Leader responded to all 120 issues, and proposed that due to the resistance from the employees, the organization would only go through with the first two steps. The first two steps included implanting a new activity-based governance model and redistributing responsibilities based on system and areas, as well as continuing the work with situational teams. The first two steps excluded reducing the number of middle managers and introducing administrative roles in the teams. This new and revised suggestion for organizational model could to some degree be supported by the UPN decision.

”

It [the Consequence Analysis] pointed to some of the weaknesses I was afraid of which we are now seeing in some of the other divisions. It was all right to get the Consequence Analysis on the table. It confirmed what top management saw. But we would never have implemented this one hundred percent anyway. Implementing BRA/IBD would have resulted in people spending their time in meetings and behind the PC instead of in their work clothes doing their job. (CEO, case C)

While management eliminated the most controversial changes, they also made the employees responsible for cutting down the number of changes they would implement. Top management emphasized that the division could no longer apply for IBD approval and the higher salary level. Union members then

became involved and reintroduced enough changes so that the unit could apply for IBD approval and the increased salary.

” *We wanted our unit to get the pay-raise to level H as well, since other units had gotten it before they actually implemented the changes, based on intentions about implementing IBD. (Implementation Project Leader, case C)*

” *We were very explicit in the adjusted model about not being eligible for Salary Level H. The unions then entered the scene andthey pretty much described what was in BRA/IBD - cooperation across disciplines, increased responsibilities, and team work. We thereby got a “Step 2 Plus” version, which qualified us to apply for IBD approval (and Salary Level H). There was some tactic involved when we did this of course... (CEO, case C)*

The CEO called a meeting with UPN (the level above the business unit) and a meeting with the Corporate BRA Steering Committee. In both meetings the CEO made it clear that the business unit would not make as big changes as first planned. They would modify the original strategy and make a local version of BRA/IBD. The CEO explained that the business unit needed to make local variations in BRA/IBD predominantly based on differences between this platform organization and other platforms. Business unit C was an old and complex platform and the Consequence Analysis proved that there was little willingness and capacity for change among the employees.

” *I told them [U&P leaders] we would not be going as far as we first had described. They frowned at this at first, but then it matured a little. We got support and they [corporate BRA leaders] wished us good luck. We felt we had the support from the whole system, and we had expected more resistance. (CEO no.2, case C)*

” *We argued based on substance and facts that we had to go through a different change process here compared with some of the other divisions. Our arguments had to do with our major goals of continuity and safety.” (Employee, case C)*

There were no marked differences in how managers and employees described the first two change phases. Despite the conflict concerning content, which was

most vividly illustrated through the Consequence Analysis, most people described the process in a similar manner, which was as a good and fair process.

” *Management listened to us and said it was necessary for us to cooperate to come up with good solutions. (Employee, case C)*

” *People here are very pleased with the way we've managed the process. They feel that they have been involved in the decision-making. (CEO, case C)*

” *We have been very explicit about our openness internally and we have gotten good feedback on this. We have gained trust because of it. (Implementation Project Leader, case C)*

Corporate project members did not see the process in the same positive light and they described the unit as difficult, stubborn and infused with political games. According to the top managers in the business unit however, this view changed as corporate level managers gained more understanding of the situation.

” *In the beginning the corporate management said we were doing things wrong here at case C, but we asked what the other divisions had done. How were they doing? No one had so far implemented BRA fully, and no one had implemented BRA successfully. You see, we could argue based on experience that we did not believe in this. (Assistant Project Leader, case C)*

” *We followed our gut feeling. We were looked upon as difficult and slow. But now, even the UPN management says that we need to make local adjustments...I am certain we did the right thing (CEO, case C)*

Implementation of the new organizational model and the new IT system (November 2000) was followed by a training and evaluation period of one year. Four months after the official implementation, the unit performed an IBD evaluation. This was part of an agreement with corporate management. The

unit had self-imposed an evaluation and if the IBD evaluation was positive, salaries would be raised and effectuated back in time (from November, 2000). In cooperation with so-called neutral outsiders (myself and another researcher), the IBD evaluation group developed a survey to evaluate the degree to which the changes had been implemented. The evaluation showed that the unit was doing what it said it would be doing, and salaries were increased accordingly.

Having been part of the IBD evaluation group, it came as no surprise that the results were positive. Despite repeated attempts at rephrasing the questions to get more reliable data, the group opted for “the sure thing”. Examination of the survey showed that it was practically impossible to get negative results the way the questions in the survey were framed and the way results were interpreted. When confronted with this, top managers explained that the purpose of the evaluation was *not* to evaluate how much of the changes were actually implemented. Rather the purpose of the evaluation was to use it (1) to legitimize increased wages (salary level H), (2) as a leverage to pressure employees to carry through the changes (prior to performing the evaluation), and (3) to affect corporate managements’ view of the change process.

One year after implementation, the business unit carried out a large evaluation. The purpose of this evaluation (the one-year evaluation) was to formally end the BRA/IBD change process and to use the results of the evaluation to guide future organizational improvement activities. The evaluation measured how far the unit had actually come in terms of changes and recommended what it should focus on in the future. The evaluation reported slow progress and emphasized the importance of toning down some ideas – such as teamwork.

The tables below summarize the CRs about process case C:

	Phase I	Phase II	Phase III
Construed realities about the business unit change process:			
Corporate members	There is a lot of political work and resistance in the business unit. They are going backwards into the future. All of the necessary preparatory work is done.	Slow change process with few changes.	Slow change process with evidence of some change.
Business unit members	The thorough and high quality preparatory work lead to a suggestion of full BRA/IBD change from the implementation project group. Massive resistance among employees makes full change impossible.	The change process goes smoothly. It is still a slow process with limited and controlled changes.	The change process goes smoothly. It is still a slow process with limited and controlled changes.
Construed Realities about the corporate change process:			
Business unit members	Rigid ideas. Must be possible to affect change process at business unit level.	More flexible change process. Possible to affect at business unit level.	More flexible change process. Possible to affect at business unit level.

Table 13: Construed Realities about Process in Case C

Discussion and summary of CRs about process

Descriptions of change processes are important because process issues are linked to how satisfied organizational members will be with the change outcome. Divergent CRs across organizational levels could be found between corporate level and the business unit (case A and C), but also within the business unit. In case B top managers accounted for the change process differently than middle managers and employees.

Divergent CRs *within* the business unit affected the overall perceptions of the change process much more negatively than did discrepancies between the business unit and headquarters. Employees in case B were clearly unhappy with the symbolic involvement in the change process. The frustration with the change process also resulted in dissatisfaction with change content. Employees described the changes as excessive and had lost trust in top management in the business unit. These types of descriptions did not appear in the other cases and they have to do with perceptions of how fair the process has been. Procedural justice theory holds that process fairness is linked to involvement, explanations, and clear expectations (Konovsky, 2000). All of these

dimensions of fairness were problematic in case B, and resulted in considerable damage in the work environment. In case A and C, on the other hand, where no signs of unfair process were evident, employees and managers could focus on negotiations about content, internally or vis-à-vis corporate management.

According to existing research, CRs about process are likely to change over time (Isabella, 1990). If asked to describe the process two years later, most employees and managers would probably have quite different recollections of what happened, both because memories tend to be selective, but also because decisions and actions tend to look differently from a distance. The data collected here does not capture significant changes in CRs over time very well, probably because the time frame is too short. In case B, however, top managers clearly changed their descriptions about the change process and content over time.

There are more signs of changes in CRs about the change process at the *corporate* level, which incorporates all three years. Over time, the corporate BRA process was increasingly perceived as possible to affect. Early references to BRA almost exclusively described a top-steered and tightly controlled change process. As each business unit became more familiar with BRA, the changes initiated from the corporate BRA project were viewed as less rigid. This was particularly the case for OD changes. The last business unit studied here described BRA and IBD as fairly rigid, but worked actively to affect both the change content and process in the business unit.

6.5 Summary and Conclusions

This chapter presented CRs about the context, content, and process of change. CRs refer to shared interpretations of events and actions, which guide the attribution of meaning and significance to specific organizational events (Isabella, 1990, pg. 9). Based on a sensemaking perspective, different CRs within each case were identified and presented. The following discrepancies in CRs were found in the data: (1) Discrepancies between internal and external CRs. CRs within the business unit differed from CRs at corporate level. (2) Divergent CRs within the business unit. Top managers' CRs differed from the

rest of the organization (employees and middle managers). (3) CRs changed over time.

Discrepancies between internal and external CRs were found for both content and process in case A and case C. In case A the discrepancy was obvious, but it was never a big issue, probably because the relationship was seen as rather unimportant. In the third business unit however, the discrepancy was somewhat disguised by a short-lived but very noisy conflict within the business unit. This conflict seemed to indicate that there was a discrepancy in CRs about content within the business unit, between management and employees. A close examination of the data indicates that there was no real conflict within the business unit. No one in the business unit wanted to implement BRA and IBD fully. The reasons for staging an internal conflict will be probed in the next chapter.

While there were no internal discrepancies in terms of context, internal discrepancies were evident both in terms of content (case B and C) and process (case B). Both of these discrepancies in CRs lead to conflicts. The conflicts were handled quite differently however. This will also be elaborated on in the next chapter, which links diverging CRs to modifications.

Multiple CRs thus appeared to diverge either between the corporate level and the business unit level, or within the business unit level between top management on the one hand and lower level management and employees on the other hand. Discrepancies in construed reality across organizational levels are summarized in the table below.

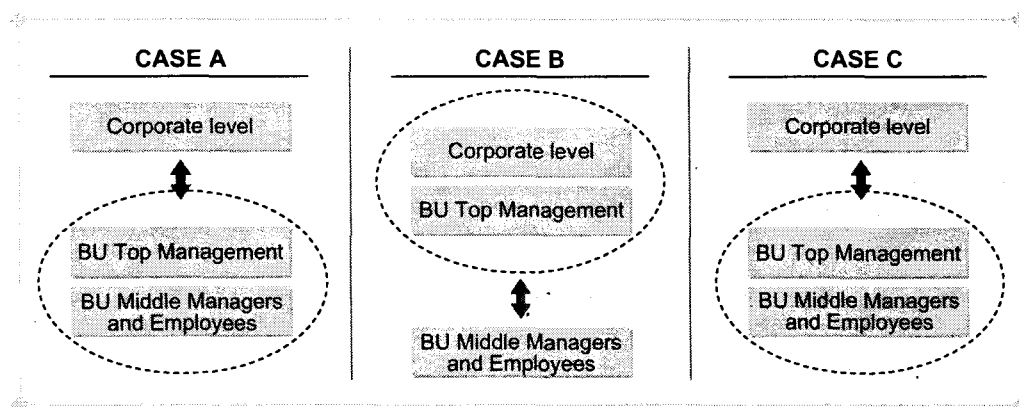


Figure 11: Overview of Diverging Construed Realities

As the figure shows, the discrepancies in CRs correspond to how key actors' interpreted their main task. When key actors saw their main task as implementing the corporate decision (case B), then discrepancies in CRs appeared within the business unit between top management and employees, while no such discrepancy was found between top management and the corporate level. When key actors saw their main task as looking out for the business unit on the other hand, such as in case A and C, the discrepancies in CRs were between headquarters at the corporate level and the business unit.

The CRs of context changed over time in two of the business units. In one case, organizational identity and image improved over time (case C), whereas in another case (case B), it deteriorated. Changes in image were linked to the apparent success of the change initiative. CRs of content changed mostly at management level as top managers saw more and more challenges over time and when there was an initial discrepancy, managers tended to move towards employees' views of the change process. Employees were more willing to cooperate if management acknowledged their opinions, but employees' descriptions about change content remained surprisingly static over time. This was the case even when the change content had been severely modified within the business unit.

CRs about process changed over time. The corporate BRA process, particularly the OD component, was increasingly viewed as optional, or at least flexible. In case A, the description of the process also developed and changed over time, as the focus shifted. Another type of change in CRs about process could be found among top managers in case B, where top managers described the same period differently as time passed by. In May 2000, top managers were describing the early change process as open, involving and good. In the fall of 2000, top managers were describing the same time period as too much change initiated too fast. Part of this shift in CRs over time had to do with new top managers coming in with a different view. The shift was also clear among remaining top managers however, and this indicates that managers increasingly understood the employees' situation.

If one recognizes that sensemaking occurs at all levels of an organization, then potential misinterpretations and misunderstandings are inevitable.

Sensemaking processes can be a direct cause of modifications. sensemaking processes also affect modifications indirectly based on the discrepancies in CRs that have been discussed in this chapter. In the next chapter, the linkages between multiple, diverging CRs and modifications will be discussed further.

7. Linking Construed Realities to Modifications

This chapter links the construed realities (CRs) presented in chapter six with the modifications presented in chapter five. Recognizing multiple CRs across organizational levels and across time is central in understanding why modifications occur. In this chapter it is argued that multiple CRs are likely to lead to modifications either directly or indirectly through conflicts and sensegiving activities.

Multiple and diverging CRs are plotted onto the illustrations of modifications from chapter five to show the relationship between multiple CRs and modifications. This data-driven description is followed by a more analytical discussion. The analytical discussion is divided into three main parts. The first part deals with the direct effects multiple CRs have on modifications. The second part shows how multiple CRs can lead to *conflict*. Different types of conflict as well as different ways of handling conflict are discussed. The third part of the analytical discussion looks at how multiple CRs lead to *sensegiving* activities by both managers and employees. Sensegiving is different from sensemaking. Sensemaking has to do with the process of trying to understand and make sense of new things. Sensegiving on the other hand, has to do with trying to influence other people's (or groups of people's) CRs. Different tools and techniques used by organizational members for sensegiving are presented.

In each of the three sections, propositions are developed predicting when and what types of modifications are likely to occur. First the empirical basis for the propositions is recapitulated. Arguments describing why the suggested relationship is likely follow each proposition. Finally, the proposition is linked up with existing research.

7.1 Visual Presentation of Multiple Construed Realities

Construed realities (CRs) are first linked to modifications by superimposing the multiple CRs found in chapter six onto the illustrations from chapter five. Previously the illustrations were based on visual mapping of the process, which

showed how the business units moved from the old strategy to a BRA strategy. In chapter five, modifications in the strategy were highlighted. Here, the diverging CRs are included in the visual mapping and the modifications are labeled according to the typology presented in chapter five. As described in the methods chapter, visual mapping can be used for simultaneous representation of a large number of dimensions and to show precedence and the passage of time. Having identified when modifications occur, makes it possible to probe the CRs that existed in the organization in the time period prior to the modification. Recall that organizational members were asked to describe different phases in the change process, and this revealed differences in CRs across organizational levels and over time.

This section provides a visual illustration of the *linkages*, which facilitates a more analytical discussion of how multiple CRs are connected with modifications. A brief recapitulation focusing on CRs (from chapter six) and modifications (from chapter five) precedes each illustration.

Case A:

In case A, there was not much going on in the preparation phase. In the implementation phase, corporate level and business unit level members described different CRs when asked about change context and content. Corporate level members expected changes in both IT and OD in the business unit, but the unit strategically interpreted their situation to be one that only needed IT changes. The planned strategy in the business unit still contained OD elements, but there was wide consensus within the unit that IT changes would be in focus. The gap between the actual changes and the planned changes thus consisted of OD changes that were not implemented.

The first local improvement group picked up the OD elements that had been left out by the local implementation project and worked on them for approximately six months. Management became pressured due to poor industry results and needed to reap benefits of OD changes. Immediate action was needed. Conveniently, a newly formed alliance with another oil company provided opportunities. CRs about what needed to be done in terms of changes (content and process) had changed over time. A second local improvement group was established based on this and focus was turned to one specific area

of OD changes – operations and maintenance. The new OD group formulated a new change program (MERIT) based on competencies within the allied oil company and hence a contraction type of modification, involving OD changes in one area only, occurred.

After the operations and maintenance changes were implemented, a third improvement group took over responsibility for local improvement work. This time the broader issues, which had been addressed by the first improvement group, were picked up again. An expansion modification was therefore expected at the time data collection ended. Again, CRs about content and process had changed. One reason for this change in CRs over time was that the business unit had showed good performance indicators so the pressure was off for quick results. Another reason seems to be that the idea of further OD changes had matured in the organization. Issues within BRA that had previously seemed irrelevant were now up for discussion again.

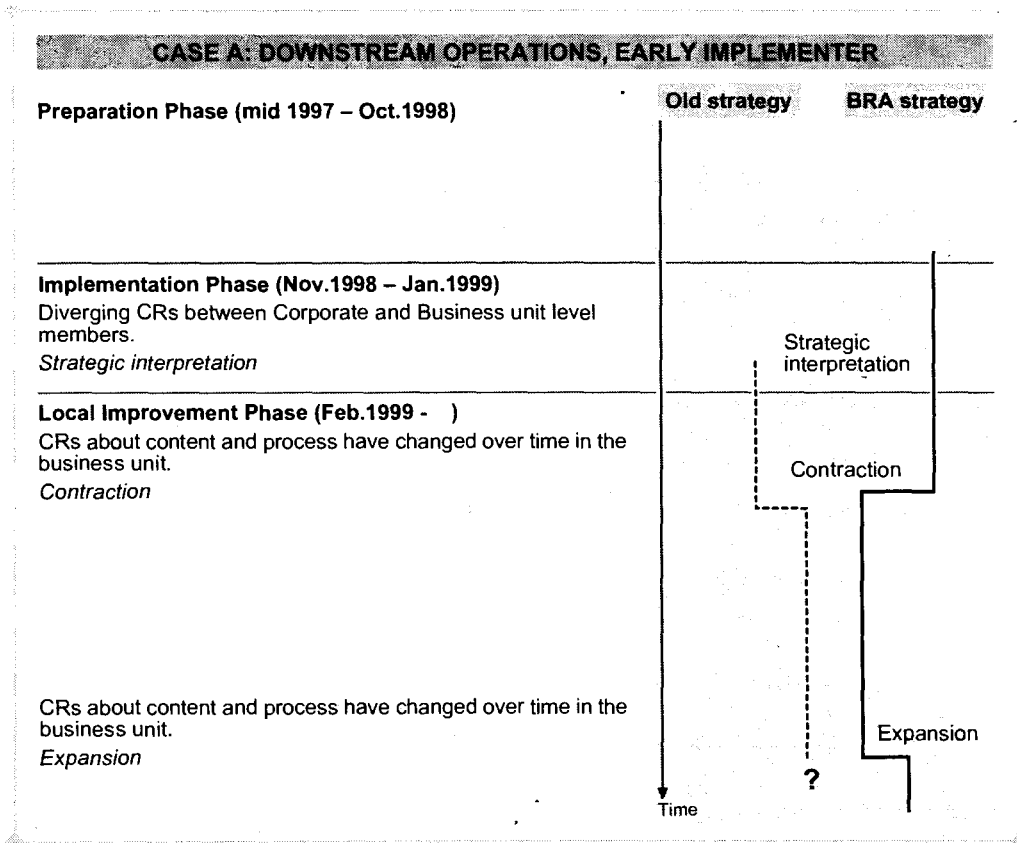


Figure 22: Linking Divergent CRs to Modifications in Case A

Case B:

In case B, the business unit saw benefits in coupling BRA and IBD. The local formulations lead to expansion of the strategy, by coupling BRA with IBD. Once changes had been implemented in phase II, employees experienced problems in actually performing their work according to the new strategy. The employees did not immediately understand what the change meant for their everyday work life, and there was a time lag in which they tried to make sense of the changes. What did it mean to have a role in the integrated team? How much time should the team members spend together? An interpretation error occurred based on the existence of multiple CRs. Middle management and employees in the business unit did not have the same level of understanding concerning the content of the strategy as top management. Middle management and employees also became very preoccupied with the change process and described it as top down and non-supportive. Once middle management and employees began to understand what the changes implied, they realized they did not agree with the change content. The multiple and diverging CRs concerning change content and process resulted in a full-blown conflict between top management on the one hand and middle management and employees on the other hand. The conflict escalated and middle management and employees responded to increased pressure by noncompliance.

Finally management dealt with the conflict by slowing down the process and increasing support. Managers strategically interpreted the planned strategy by informally deviating from their original plans in terms of how they would effectuate the change. Employees then began to cooperate in terms of participating actively in work groups and discussing how to continue working with the changes. The gap between the actual change and the planned change was still large however. Only when the planned change was formally modified, through contraction, was the gap reduced and the map started to look more like the terrain.

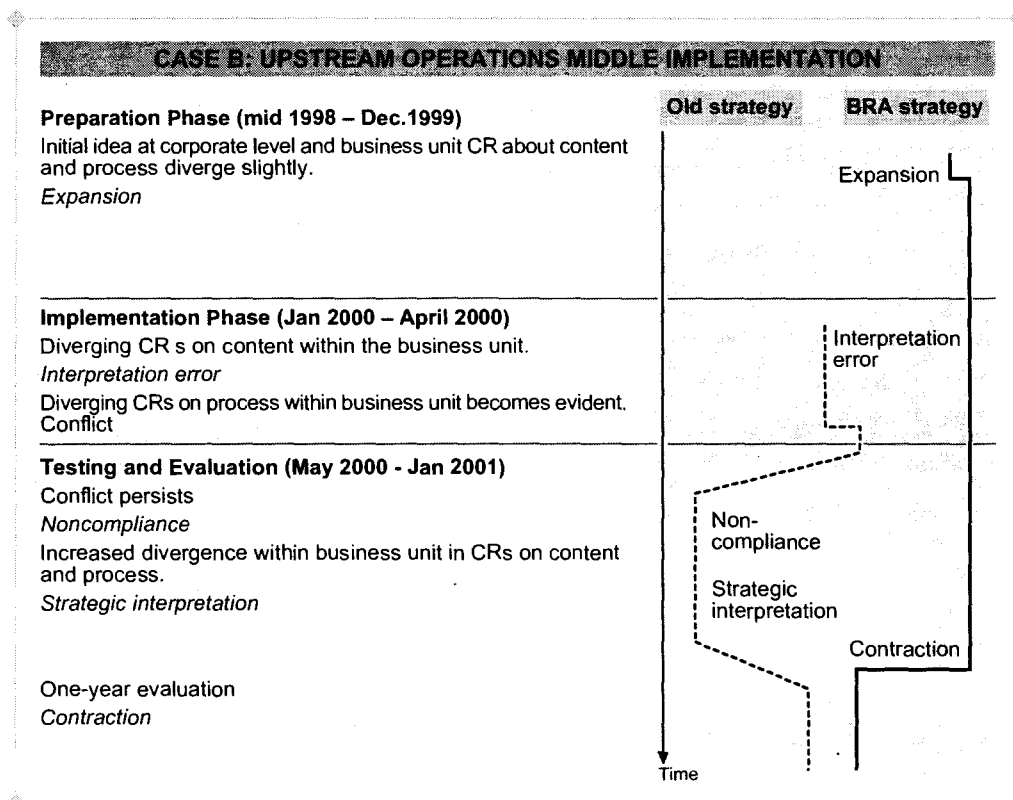


Figure 33: Linking Diverging CRs to Modifications in Case B

Case C:

Case C revealed unified a CR in the early phase. Local formulations lead to expansion of the strategy by coupling BRA and IBD. Once management presented a complete suggestion for new organizational model, multiple and diverging CRs in terms of content became clear within the business unit. Management and the implementation project had suggested a new model that went all they way in terms of BRA/IBD. Employees loudly voiced their opposition in a Consequence Analysis. Management then quickly eliminated the controversial contents in the change initiative through contraction. They went so far in their eliminations however, that employees actually reintroduced some elements of change again through an expansion of the strategy. Employees were not willing to give up economic benefits that came with the changes. Both of these modifications occurred during the early implementation phase, which involved local formulation and ended with parallel implementation of IT and OD components.

Actual changes were close to planned changes in this unit. One year after implementation, an evaluation was carried out. Based on the results from the evaluation, it was suggested to tone down some of the change initiatives and hence a contraction was suggested. Signs of strategic interpretations also became evident. The evaluation report suggested moving from situational teams to discipline-based teams, which meant returning to the old discipline-based way of organizing work.

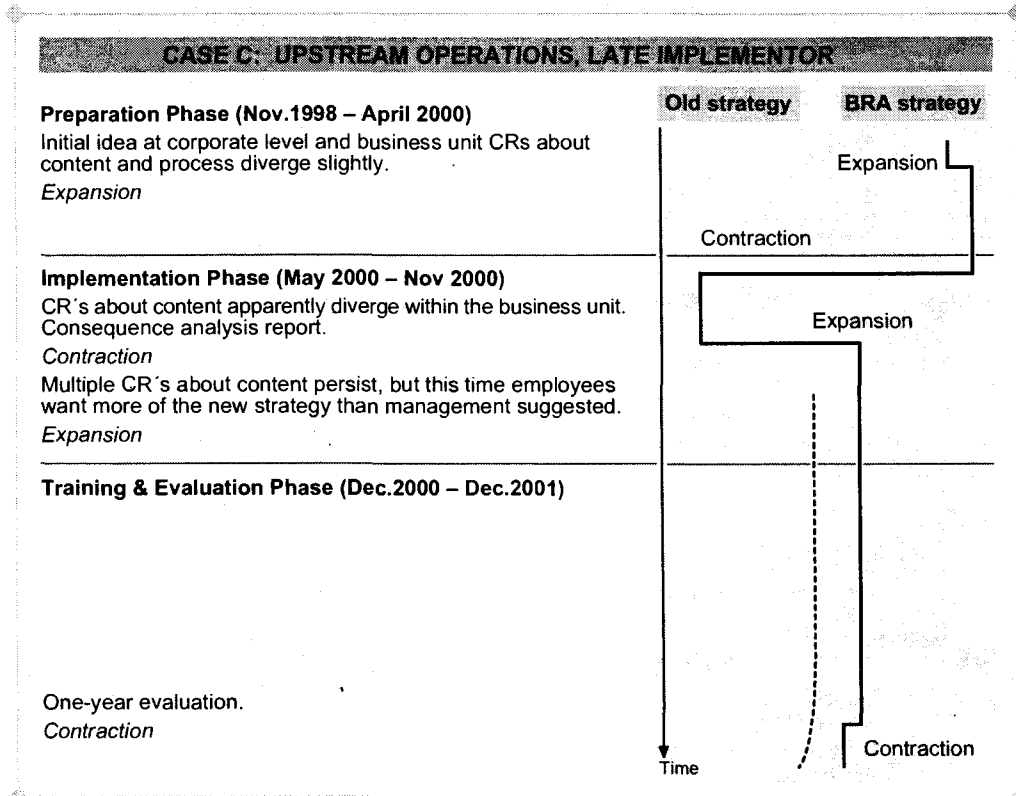


Figure 44: Linking Diverging CRs to Modifications in Case C

The three illustrations show that multiple construed realities either precede modifications, cause conflict, or lead to sensegiving activities. Based on the data, the following relationship can be proposed:

P1: Multiple CRs, may lead to modifications in strategy, conflict, or sensegiving activities.

This relationship between multiple CRs and modifications is the essence of this thesis. It has been argued that CRs diverge both across organizational levels and across time. The reason multiple and diverging views of what the change

content, process, and context consist of lead to modifications is because in planned changes higher level employees formulate the changes while lower level employees are central in actually performing the changes. If lower-level employees hold a different view of what the changes are about (multiple CRs across levels), then it is likely that they will implement variations of the intended changes. Modifications as a direct effect of multiple and diverging CRs are often unintentional, where the different CRs remain unrecognized. Multiple CRs across time are also likely to lead to modifications. If e.g. managers change their view over time, then the strategy will likely be modified accordingly.

Multiple and diverging CRs do not always lead to modifications directly. Different CRs can also lead to conflict or sensegiving. Conflict requires recognition of the different CRs and the conflicting parties have to perceive the matter as somewhat important for them to enter into conflict. It has been argued that strategic change triggers sensemaking. Because of aspects such as differences in personality, history, experiences, and position in the corporation, different individuals and groups of individuals are likely to establish different CRs about the changes. Once CRs are established it can be very frustrating to realize that other, and perhaps powerful, groups in the organization hold quite different and sometimes contrary views about the changes. Conflict is one response to multiple and diverging CR's. Sensegiving represents another response. Sensegiving has to do with how people try to affect other people's sensemaking processes. For the same reasons individuals or groups enter into conflict, they may choose to try to change other people's opinion about the change.

The different elements within the proposition will be developed further in the remainder of the chapter. Subsequent propositions clarify why and when multiple CRs are likely to lead to modifications as opposed to when multiple CRs are likely to lead to conflict and sensegiving activities.

Prior to the development of more specific propositions one might ask if and when multiple CRs do *not* lead to modifications, conflict, or sensegiving activities. It is argued here that multiple and diverging CRs in organizations will generally lead to modifications, conflict, or sensegiving activities unless

the groups with different CRs remain autonomous and independent of each other. If no interdependencies exist between the groups that hold different CRs, then continuing with different and diverging CRs can be quite unproblematic. As soon as any connection or interdependencies evolve however, modifications, conflict, or sensegiving activities are likely to occur.

7.2 Modifications Based on Diverging Construed Realities

In chapter six, multiple construed realities (CRs) concerning change context, content, and process were presented. Multiple and diverging CRs were revealed, mostly between organizational levels, but also across time.

The fact that organizational members interpret and understand the change *content* in different ways can obviously lead to modifications in strategy. The modifications are not always deliberate, but sometimes due to misunderstandings or misinterpretation. Modifications may also be more deliberate and due to strategic interpretation. Six modifications that can be linked directly to multiple and diverging CRs were found in the data.

- 1) Strategic interpretation in case A, phase I
- 2) Expansion in case B, phase I
- 3) Expansion in case C, phase I
- 4) Interpretation error in case B, phase II

- 5) Contraction in case A, phase III
- 6) Expansion in case A, phase III

The first four modifications occurred due to diverging CRs across organizational levels, while the last two modifications involved CRs that changed over time. Two propositions are presented, which deal with the direct effect of multiple CRs. Since the propositions in this thesis are based on empirical findings, the different modifications that lead up to a proposition are first briefly summarized.

Multiple CRs diverging across organizational levels

Strategic interpretation in case A, phase I. The business unit chose to interpret relevant BRA changes as IT-related. It was argued that no organizational

changes were needed within the business unit, as BRA requirements in terms of OD changes were already fulfilled by the business unit. This interpretation of the content of BRA and the local context within the business unit was different from corporate level ideas. Multiple and diverging CRs concerning context and content thus existed between corporate level and business unit level.

Expansion in case B and C, phase I. Another change process, IBD, was coupled with the BRA change and the strategy was thereby expanded. This occurred during local formulations in the business units and thereby it represents a discrepancy between corporate level CRs and business unit CRs on content. Corporate level members did not disagree with the decision to merge the two change processes, but the idea to expand BRA and include IBD came up through local formulations within the upstream business units.

Interpretation error in case B, phase 2. Different CRs about content appeared within the business unit between top management on the one hand and middle managers and employees on the other hand. This caused interpretation errors. Organizational members struggled to understand what the changes implied for their work situations. The result was a discrepancy between actual and planned changes. Employees did not have the same idea about what should be changed as the management had, and the mismatch was mostly due to a lack of knowledge about content at this time. The multiple and divergent CRs about content did not appear until after implementation of organizational changes.

All of these first four examples show modifications occurring as a direct effect of multiple and divergent CRs *across levels*. The modifications occurred relatively early in the change process. The following linkage can therefore be proposed:

P2a: Multiple CRs, which diverge between organizational levels, are likely to cause modifications early in the change process.

Multiple CRs that diverge between organizational levels are likely to lead to modifications, because the strategy that has been planned and formulated at the top of the organization needs to be made sense of at lower levels. Local

formulations involve interpretation of what the strategy means, clarification of how the strategy will affect that particular division or business unit, and an understanding of how the changes fit with current strategy and other change and development efforts. In addition to interpretation, local formulations include operationalization of the strategy. General ideas and goals need to be translated into concrete action.

When managers and employees at the business unit level make local formulations, then both deliberate and non-deliberate misinterpretations are likely to occur. If organizational members at the business unit level have different CRs than organizational members at the corporate level, the strategy will be modified either as it is interpreted or as it is operationalized.

It should come as no surprise that people have different views and opinions. Yet when corporate level managers have worked long to formulate strategy, they tend to forget that lower levels in the organization might not have worked on the same issues and arrived at the same conclusions. Because top managers have worked long at formulation, they tend to define a strategy that is sent downward in the organization as implemented. At the receiving end, however, lower level managers and employees are just beginning to work with the new strategy.

In much of the strategy literature, the focus is on decision-making in the strategy formulation phase, and less attention is paid to whether or not the decision can be implemented. In this literature, implementation is viewed merely as acting upon decisions. This is similar to the top-management view of implementation as passing a decision on to the next level. It has been argued here that implementation involves decision-making at lower levels and these decisions are not always within the boundaries of higher-level decisions. Even when members at the business unit level understand the original strategy correctly, corporate decisions often come up for debate again at lower levels. Passing a decision onto the lower level does not guarantee implementation. Local formulation processes present a plausible explanation for why modifications based on multiple CRs occur early in the change process.

Another likely explanation for why modifications based on multiple CRs appear early in the change process is that top management has failed to communicate the strategy properly to lower levels. Through communication, top management can get lower level managers and employees to understand the strategy. A lack of proper communication was the first probable explanation that came to mind when multiple CRs were uncovered in the data. However, further examination of the communication processes in the implementation process showed ample communication. In some instances employees even complained about too much information because learning about the change content and process took so much time. This indicates that communication does not always ensure common CRs.

Recent research has emphasized that one-way communication, where top management focuses on getting a message through tends to predominate in change processes (Lewis, Hamel, & Richardson, 2001). It is argued here that although two-way communication might facilitate recognition of different CRs and allow for sensegiving activities that might lead to consensus, two-way communication will hardly eliminate modifications based on multiple CRs. This is because employees need time to make sense of a new strategy. Improving and increasing communication does not eliminate the time required for sensemaking. Organizational members need time to make sense of a new strategy. Even when all employees understand the new strategy, commitment to change does not automatically follow. This was illustrated in a previous citation by a middle manager when he stated that although they (the employees) had to be loyal to the decision they did not necessarily agree with it or believe in it.

Strategy implementation and organizational development literature on involvement recognizes the potential problem of multiple CRs and prescribes a high level of involvement in the strategy formulation phase. Involving lower level managers and employees in strategy formulation is a widely accepted way to create understanding, ownership, and commitment for the change. The data analysis showed that involvement was not always genuine, and that some employees felt pressured into consensus during strategy formulation. One well-known way of dealing with conflict is to elevate the discussion onto a level where everyone can agree (Guth & MacMillan, 1986). Upon implementation

and local formulation, abstract and vague decisions need to be operationalized and then the different CRs are likely to become evident again. Involvement may therefore not always solve the problem of multiple CRs that diverge across levels. This is particularly the case when involvement is symbolic rather than real, and when only a temporary consensus is reached based on group pressure or abstract and vague decision.

Political perspectives on implementation also recognize potential modifications early in the implementation phase. Resistance is usually presented as the main cause of modifications. Multiple CRs *can* certainly involve resistance, particularly when they turn into conflict, but it is argued in this thesis that resistance and conflict often appear later in the change process. Furthermore, resistance presupposes a conscious action, whereas multiple CRs are not always recognized, and modifications may be non-deliberate. Political perspectives do not incorporate such non-deliberate misinterpretations at lower levels, nor do they account for the time it takes for lower level employees to make sense of the change and to create an opinion of the change.

Multiple CRs diverging over time

Chapter six also revealed that CRs change over time. This was particularly the case in the first business unit. Changes in CRs over time lead to expansion or contraction type modifications.

Contraction in case A, phase 3. Early plans included IT changes and all OD changes. About six months after implementation, OD changes were officially narrowed to focus on one area - operations and maintenance. CRs had changed over time. Most managers and employees saw a focused OD change as natural. This view evolved partly from the opportunity that appeared through the Shell cooperation.

Expansion in case A, phase 3. CRs had once again changed over time in case A. Some OD changes had been successfully implemented. Industry performance and organizational performance indicators were improving considerably, and organizational members were ready to consider additional OD changes.

Based on these empirical examples of modifications based on CRs that changed over time, the following relationship can be proposed:

P2b: Multiple CRs, which diverge across time, are likely to lead to expansion or contraction type modifications.

When CRs change over time within the same group of organizational members, then modifications are likely to be made through new decisions. This is because if those responsible for implementing the changes no longer believe that these changes are optimal, then they will reformulate the strategy, either by introducing new elements, or by eliminating some of the change elements.

Previous research has found that interpretive schemes (which are here The whole stream of cognitive research focusing on strategy formulation and strategic decision-making is based on the idea that when top managers see the world and their surroundings in a new way, they initiate changes. referred to as CRs) change over time during implementation (Isabella, 1990). Previous research has linked changes in interpretive schemes among top managers with organizational change (Bartunek, 1984), and found that top managers' strategic issue diagnosing leads to strategic change initiatives (Dutton & Duncan, 1987). This stream of research links changes in CRs to the initiation of strategic changes, and not to modifications in a change that is already under implementation. The proposition above supports and extends previous findings as it suggests that changes in CR over time not only lead to initiation of strategic changes, but can also lead to decision-based modifications *during* a change process.

The proposition partly contradicts previous findings that argue that change initiatives have a short time period in which to implement changes – a so-called “window of opportunity” in terms of achieving change. Several researchers have argued that if the changes are not implemented within a short time frame after change initiation, then the opportunity for change is lost (Tyre & Orlikowski, 1994). Contraction type modifications support this finding, but here it is argued that also expansion type modifications can occur as CRs change over time. If organizations expand the strategy over time, then the window of opportunity has not been closed, on the contrary. Because CRs

change and develop over time, some change elements can be left out in the beginning but then picked up later in the change process, when they are more appropriate, or when the ideas have matured among more organization members.

The data suggest two additional ways in which multiple CRs are dealt with, apart from making modifications. They are (1) multiple CRs lead to conflicts and (2) multiple CRs lead to sensegiving activities. Both eventually lead to modifications.

7.3 Modifications Based on Conflicts

“People in organizations ...have different interpretations of common events. When these conflicting interpretations are aired they create political struggles.” (Weick, 1995, pp.53)

As the quote above suggests, different interpretations – or multiple CRs - can create conflicts if they are recognized and confronted. In this section different types of conflict are discussed based on the data. The most important issues in terms of predicting which type of modification (and in turn which kind of outcome) one can expect based on conflict, has to do with how the conflict is handled. Whether a conflict is ignored or addressed depends among other things on whom the conflict is between.

Different types of conflict

The previous chapter identified periods of open and clear conflict in the second and third case. Multiple and diverging CRs lead to conflict and ultimately to modifications the following times:

- 1) Non-compliance in case B, phase III
- 2) Strategic interpretation in case B, phase III
- 3) Contraction in case C, phase II
- 4) Expansion in case C, phase I

Conflict can be defined as a state of disagreement and disharmony. The intensity and emotional aspects of the conflict in case B were considerably stronger than in case C. There are at least two plausible explanations for this.

The first explanation is that the second case depicts a real conflict while in the third case there was no real conflict within the business unit. Instead, a potential conflict appeared between the business unit and headquarters based on divergent CRs. Organizational members at all levels of the business unit were hesitant and reluctant in implementing BRA. Both the first and the second top manager in case C explicitly voiced doubts about the change initiative. Yet the first top manager let the local project group work out a suggestion for full-scale change. The proposed new organizational model was the basis for the alleged conflict between employees and top management. The second top manager said that he would never have implemented BRA/IBD fully. He further chose to view the Consequence Analysis as the employees' voice. Whether or not the conflict between top management and employees was authentic in case C may thus be questioned and this issue will be discussed further in the next section on sensegiving. Although evidence indicates that there was no real conflict between management and employees in case C, employees could not have known this for certain at the time. Employees knew about top management doubts so far, but they were faced with a proposition to go for full-scale change and they did not yet have a new top manager. Their reactions must therefore be understood based on an apparent conflict between what they wanted and what top management and the project group wanted.

The second explanation, for the different caliber conflicts, is that in case C, the conflict (if we acknowledge it as a real conflict) was short as it was quickly resolved through modifications. Not only was the conflict short-lived, but it was resolved *during* local formulation. Employees in case C naturally felt they could affect the change process to a greater degree than employees in case B. The employees in case C kept their arguments against the changes at a more factual level and did not display the same emotional reactions towards the change and towards top management. In case B, on the other hand, the conflict became evident *after* local formulations were completed and it then included both conflict concerning content and widely different accounts (CRs) of the early change process. In retrospect, employees perceived the local formulation

process as unjust. The reactions came when the changes were affecting employees' everyday work situation. At this time the changes were not just theories about how work would be done in the future, but the changes were occurring at that time. Arguments became very emotional. Employees reported they felt management was trying to break up the social environment, that changes were excessive and difficult to deal with, and that they had lost trust in top management within the business unit.

In order to differentiate between the two types of conflict, conflict before a decision has been made will be labeled *conflict-in-theory*. *Conflict-in-reality*, on the other hand, refers to conflict that appears or persists after a decision has been made.

Conflict-in-theory appears early in the change process, before decisions have been finalized. Conflict-in-theory was only evident in case C. This case was among the last to implement BRA, so from a corporate perspective, this conflict appeared late. Conflict-in-reality, by definition appears later in the change process. It seems then, that full-blown conflicts never occurred early in the change process. Based on this finding, the following proposition is posed:

P3a: Modifications based on conflicts are likely to occur late in the change process.

The main reason conflicts did not cause modifications earlier in the change process is that it takes time for organizational members to make sense of the changes. Divergent CRs may exist earlier, but for conflict to appear, organizational members have to form alliances and find some channels and modes of communication to express their differences of opinions. The emotional aspects of conflict-in-reality also suggest that opinions become stronger once the changes actually affect everyday work, which is later in the change process.

Existing theory on strategic change process, particularly that dealing with resistance, focuses on gaining commitment early in the change process, for example through involvement in strategy formulation. Recent research suggests contradictory findings concerning when employees form opinions

about change. Conceptual research points out that attitudes towards change are formed early and that once attitudes are formed they are difficult to change (Lines, 2002), while empirical research has shown that employees do not have strong feelings about the change until later in the change process (Bareil & Savoie, 1999). The above proposition suggests that even when there seems to be commitment and a positive attitude early in the change process, conflicts may appear later, once the operationalization of the changes begins.

Different ways of handling conflict

Once conflict is recognized there are different ways to handle it. The conflict can either be addressed or ignored. In order to understand how top management handled conflict in the three cases studied here, it is necessary to explore whom the conflict concerned and how managers viewed their situations - in other words how they made sense of context.

Diverging CRs were found between both the business unit and the corporate level, and within the business unit between top management and employees. The four modifications that were caused by conflict were all apparently based on conflict within the business unit (if the internal conflict in case C is viewed as real). Management in the business units handled the apparent conflicts quite differently. The conflicts were handled either by addressing the conflict directly or by ignoring it and trying to force the opposing part to give in.

Conflict handling can be linked back to how the members of the business units made sense of context. In business unit B, management was eager to reinforce the good image in the unit, and hence conflict within the business unit was ignored or met with increased pressure to implement changes. In case C on the other hand, management made sure the internal conflict was communicated widely and then quickly and smoothly resolved it through contraction. It is important to point out that the elimination of some of the BRA/IBD elements was completely uncontroversial. This was what management wanted to do all along. The external message however, focused on massive resistance internally in the business unit, which gave management a legitimate reason to retreat and make a local version of BRA/IBD.

When conflict was addressed (case C), decision-based modifications were made (contraction and then expansion). When conflict was ignored on the other hand (case B), employees responded with action-based modifications (non-compliance and strategic interpretation). Two propositions concerning conflict handling can be formulated:

P3b: If conflict based on multiple CRs is ignored, then strategic interpretation or non-compliance modifications are likely.

P3c: If conflict based on multiple CRs is addressed, then contraction or expansion type modifications are likely.

The way conflict is handled says something about how management views employees. Most people appreciate being heard and being taken seriously. If management ignores signs of conflict and continue pushing their own ideas, then employees' concerns are not being met. One way employees cope with this is to find alternative ways of doing things, such as continuing to follow the old strategy or pretend to have changed the way the work. If management on the other hand listens to the employees' arguments and confronts their concerns - not necessarily by giving in, but by responding to employees' CRs - then negotiations, which either expand or contract the strategy, are made possible.

Existing research on resistance to change focuses on understanding the reasons for resistance (Ezzamel, Wilmott, & Worthington 2001; Guth & MacMillan, 1986). Different ways of handling resistance are suggested based on different underlying reasons for resistance. For instance, if employees resist changes because they fail to agree with the goals, then management should raise the discussion to a higher level, where it is easier to agree. If employees resist because they are uncertain whether or not they are able to perform changes, then management needs to increase employees' confidence and explain how they can handle the changes (Guth & MacMillan, 1986). There is limited research on modifications, and hence previous research has not linked conflict or resistance to different types of modifications. This relationship is nevertheless important because the different types of modifications are closely related to change outcome. If it is important for the organization to implement

changes at the operational level as well as at the strategic level, then management needs to deal actively with conflict, as ignoring conflict is likely to lead to loosely coupled or assimilation type outcomes. (Recall from chapter five that strategic interpretation and non-compliance are modifications that are closely linked to loose coupling and assimilation)

7.4 Modifications Based on Sensegiving

Sensegiving can be defined as “the process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organizational reality” (Gioia & Chittipeddi, 1991: pg. 442). Meaning construction and organizational reality refer to what has here been called CRs. According to Gioia & Chittipeddi (1991), sensegiving is just as common in strategic change processes as is sensemaking. “Ultimately strategic change is a negotiation process. ...In this negotiation process each group tries to sell its vision of the future to the others (sensegiving)... “ (pg.446). In change initiation, sensegiving has to do with visions of the future. In change implementation, sensegiving is not only about visions of the future but also about visions of the present situation. The CRs about context, content, and process are communicated through sensegiving tools and activities.

Several modifications based on sensegiving were found in the data.

- 1) Conflict involving contraction and expansion in case C, phase II
- 2) Contraction in case B, phase III
- 3) Contraction in case C, phase III

Conflict involving contraction and expansion in case C, phase I. Contraction and expansion modifications were made because of internal conflict, as suggested in the previous section. The conflict was *used* by management in the business unit for sensegiving activities vis-à-vis corporate management. The Consequence Analysis, in particular, provided a legitimate sensegiving tool. The work on the Consequence Analysis had even been headed by a corporate manager, which increased the legitimacy of the report even further.

Contraction in case B and C, phase III. One-year evaluations of the BRA/IBD change process were used to communicate CRs at business unit level. Again,

the business units were using formal sensegiving tools to convince corporate headquarters that the changes were not appropriate or necessary for that particular business unit.

Sensegiving activities appeared both before and after local formulations in the business units. *Before* decision making, when conflict-in-theory surfaced in case C, the Consequence Analysis was used first by employees as a tool for expressing their opinions about the proposed changes and later by management to show corporate management how low the change willingness was among employees in the unit. Sensegiving occurred *after* decision making as well. Again, both management and employees voiced their opinions and tried to affect others' opinions. Managers in unit C used a formal evaluation (the IBD evaluation) to show corporate management that the unit was doing what it said it would be doing. The evaluation was performed a few months after implementation of BRA/IBD. This evaluation was also used to reinforce employees' views and to give them a sense of going in the right direction. No modifications followed since the evaluation was more of an a-posterio legitimation act rather than aimed at future modifications. In both case B and C, one-year evaluations were performed as a tool for management to use towards corporate managers to legitimate eliminating some changes.

In all of the examples above, the channels for sensegiving were formal reports and evaluations. More and less obvious sensegiving activities occur continuously in organizations and naturally they will not always lead to modifications. In the corporation studied here, sensegiving through formal evaluations and reports was such a successful tool that most business units in the corporation planned to perform one-year evaluations, probably as a means for legitimizing contractions vis-à-vis corporate headquarters.

Based on these arguments, two propositions about sensegiving activities and sensegiving tools or channels can be formulated:

P4a: Modifications based on sensegiving activities are likely to occur late in the change process.

P4b: If multiple CRs diverge across organizational levels and legitimate channels for sensegiving are available, then expansion or contraction type modifications are likely.

Sensegiving activities lead to modifications late in the change process because, as stated previously, sensemaking takes time and it is difficult to try to affect other people's opinion (give sense) before one has made sense of the changes and clarified one's own point of view. In planned change initiatives, employees are usually the last to "receive" the changes and sensegiving by employees therefore appears relatively late in the change process. Much of existing strategy research seems to assume that decisions made in the formulation process necessarily frame later decisions. Involving employees early in the change process, during formulation, is often seen as a way to secure understanding and commitment for the changes, and to avoid later confrontations and negotiations about the changes. The above proposition suggests that employees and other organizational members influence the change content *throughout* the change process, and particularly late in the change process, when they have had time to make sense of the changes and have mobilized support. This was the case even when employees had been involved in the local formulation process.

Proposition 4b has to do with channels of communication for sensegiving activities. The data analysis showed that formal reports and evaluations over time became popular and successful channels for sensegiving activities. While studies on sensegiving activities during *implementation* remain rare (with the exception of Gioia and Chittipeddi, 1991 and Balogun, 2001), previous research on other organizational phenomena has shown a tendency for organizations to rely on formal and written materials (Langley, 1990). In an empirical study, Langley (1990) found that formal analysis is used as a key tool of persuasion and verification in the negotiation process between organizational levels. Organizations and organizational members seem to prefer formal materials, which legitimize action to a greater degree than less formal bases for decisions. The proposition thereby supports and extends earlier findings concerning the importance of formal and written materials as tools for legitimizing organizational action.

7.5 Summary and Conclusions

In this chapter multiple CRs were presented as the major reason for modifications. In the previous chapter CRs concerning change content, process and context were found to diverge either across organizational levels or over time. Three different ways in which multiple CRs were linked to modifications could be found in the data. (1) A direct linkage between multiple CRs and modifications. (2) An indirect linkage between multiple CRs and modifications based on conflicts. (3) An indirect linkage between multiple CRs and modifications based on sensegiving activities.

The table below presents the twelve modifications at business unit level and different color shading indicates the major reasons for modifications. Light gray shading represents a direct effect of diverging CRs. Medium gray shading shows conflict as the reason for modifications. Modifications that are shaded with dark gray color were caused by sensegiving activities. The illustration clearly shows how the reasons for modifications shift over time. Modifications as a direct effect of diverging CRs decrease over time, but they are replaced with modifications based on conflict and sensegiving. The first modifications were due to multiple and diverging CRs, later modifications were linked with conflicts, while sensegiving appeared as a reason for modifications even later in the change process. The exception is case C, which was among the last to implement the strategy. The corporate change process had then lasted for four years already, so although modifications appeared early in case C, employees and management knew much more about the changes based on the experience of other business unit.

Modification number	Case A	Case B	Case C
1	Strategic interpretation	Expansion	Expansion
2	Contraction	Interpretation error	Contraction
3	Expansion (?)	Non-compliance	Expansion
4	X	Strategic interpretation	Contraction
5	X	Contraction	X

Figure 55: Overview of Modifications over Time

The following table summarizes the propositions that were developed based on data in this chapter:

P1:	Multiple CRs are likely to lead to modifications, conflict, or sensegiving activities.
P2a:	Multiple CRs, which diverge between organizational levels, are likely to lead to modifications early in the change process.
P2b:	Multiple CRs, which diverge across time, are likely to lead to expansion or contraction.
P3a:	Modifications based on conflicts are likely to occur later in the change process.
P3b:	If conflict based on multiple CRs is ignored, then strategic interpretation or non-compliance type modifications are likely.
P3c:	If conflict based on multiple CRs is addressed, then contraction or expansion type modifications are likely.
P4a:	Modifications based on sensegiving are likely to occur late in the change process.
P4b:	If multiple CRs diverge across organizational levels and legitimate channels for sensegiving are available, then expansion or contraction type modifications are likely.

Table 14: Propositions

The reasoning behind the relationships in the propositions were explained in the chapter, and the propositions were linked with existing research. One fundamental explanation for the proposed relationships had to do with the time sensemaking requires. Diverging CRs may exist and cause modifications directly, but when modifications are caused indirectly by multiple and diverging CRs, the temporal dimension becomes crucial. Conflicts and sensegiving activities require more advanced sensemaking and it takes time for organizational member both to clarify what they think about the changes, and to mobilize enough support to express their views.

8. Integrating Model

This chapter integrates the findings in the previous three chapters through the development of a model. The model shows the main reasons for modifications and the outcomes of modifications. The different types of modifications can easily be included in the model, but have been left out to keep the model as simple as possible. Based on the model, dynamic outcomes and corporate outcome are discussed. The findings in the study are also discussed at a more general level, which has to do with how the findings apply to other strategy implementation processes.

This thesis set out to answer three questions. The first question asked how a planned strategy is modified over time. Existing research indicated that during implementation, some elements within the planned strategy were likely to “fall out” while other elements were likely to emerge and be incorporated in the strategy. Chapter five illustrated, empirically, how the planned strategy (BRA) was modified over time in three business units and how this affected the change outcome.

The second research question probed reasons for modifying a planned strategy. The sensemaking perspective was applied as a framework for analyzing and presenting the findings. In chapter six, CRs about context, content, and process were presented with a focus on identifying multiple CRs that either diverged across organizational levels or changed over time. In chapter seven, multiple and diverging CRs were linked to modifications. Propositions were formulated predicting when different types of modifications are likely to occur.

The third research question asked about the effects modifications have on change outcome. In chapter five three different types of change outcome were identified: loose coupling, assimilation, and accomodation.

The findings can be summarized in the following model:

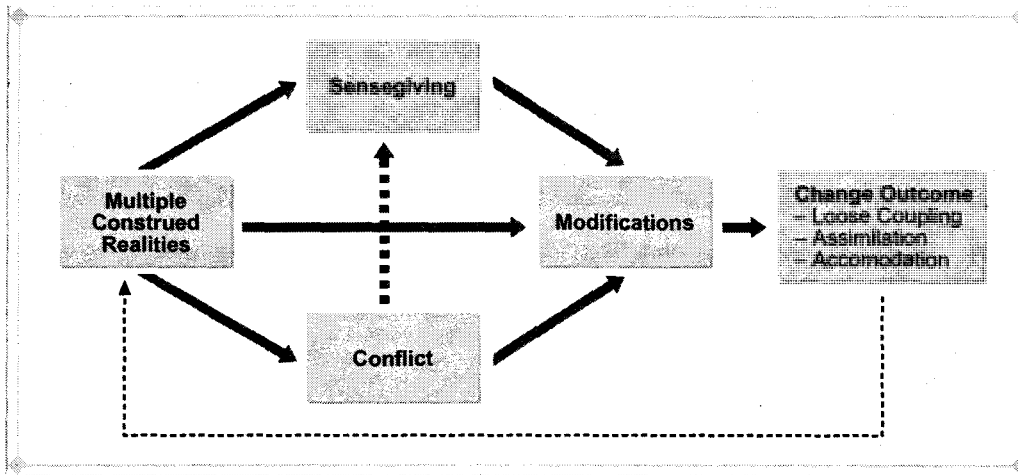


Figure 66: Integrating Model

The model shows how multiple CRs directly and indirectly lead to modifications. Indirect effects are channeled through conflicts and sensegiving activities. Interdependencies between conflict and sensegiving are shown by the gray arrow from conflict to sensegiving. The light color indicates that this relationship is not a main focus, but conflict can lead to sensegiving, and conflicts can be used in sensegiving activities.

The change outcomes are linked back with multiple CRs showing the dynamic relationship between reasons for modifications, types of modifications, and change outcome. The dynamic dimension in the model also emphasizes that a change outcome is never final, and that any change outcome may result in persisting or new discrepancies CRs, which in turn trigger further modifications.

8.1 Dynamic Outcomes.

The feedback line in the integrating model indicates that outcomes are not static. The data analysis revealed that business units moved between different outcomes over time. All three cases studied here moved towards accomodation outcomes over time. In at least two of the cases (A and B), other types of outcomes could clearly be found earlier in the process.

In business unit A, the strategic interpretation, which limited the BRA changes to the IT component lead to an assimilation outcome. The organization pretended to have changed according to the new strategy, but closer

examination showed that what they referred to as e.g. integrated teams was quite different from the description of teams within the new strategy. Later, however, the unit did implement a selection of the BRA changes. These changes satisfied several of the BRA principles, and thus the outcome had moved towards accomodation, where some things were changed in accordance with BRA, while others were kept as before. There was no longer a mismatch between changes at the strategic level and changes at the operational level, because the plans at the strategic level had been modified through contraction. A probable expansion appeared at the end of the data collection period, but could not be confirmed at that time.

In case B, the first outcome assessment showed a gap between changes at the strategic level and changes at the operational level, indicating loose coupling or assimilation. In this case there was no pretence of having performed the changes however. The gap was not based on strategic interpretation, but rather interpretation error – employees had problems changing the way they worked. The modification lead to a loosely coupled change outcome. Loose coupling persisted after non-compliance modifications, but when management strategically interpreted their own plans for change, the outcome moved towards assimilation. Management implicitly allowed employees to work differently from the plan. When the planned strategy was explicitly modified through contraction, the business unit moved towards an accommodation outcome. The different outcomes and modifications in this business unit are plotted onto the original illustration of the phenomenon below.

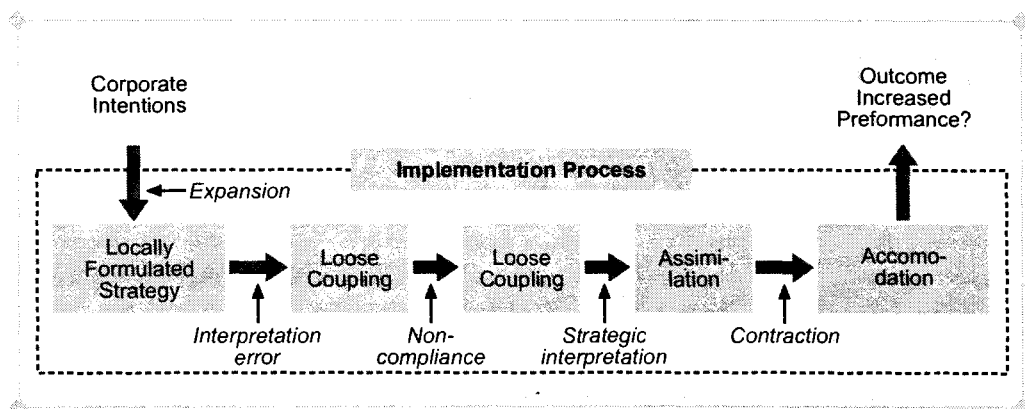


Figure 77: An Example of Modifications and Outcomes

In the business unit C, intensive work was done early in the process to understand the implications of the new strategy. Management explicitly stated that they would not implement all changes. Early modifications, in the form of expansion, contraction, and then expansion again, lead to an accommodation outcome fairly early in the change process within the unit. The accommodation outcome persisted. In the early phases some new concepts were invented. One example was “situational” teams. BRA and IBD introduced the concept “integrated teams”. Business unit C wanted to distinguish between permanent teams and temporary teams, as they preferred to have temporary teams. Inventing new concepts is in accordance with an accommodation outcome as long as old practices are not just relabeled. “Situational teams” was a way to introduce the team dimension without losing disciplinary belonging. In the one-year evaluation, however, new terms were again introduced. One example was discipline-based teams. The unit picked this term up from another business unit. The old way of working (in disciplines) presided at the operational level and the disciplines were simply renamed into teams. At the time data collection was completed, it was not yet decided whether the unit would move from situational teams to disciplinary teams. If the unit ends up re-labeling the disciplines into teams, then they will have modified the strategy through strategic interpretation, and the change outcome is likely to move towards assimilation.

Different types of modifications cause organizations and business units to move between different change outcomes over time. It has been argued that multiple and divergent CRs trigger modifications. Multiple and divergent CRs evolve due to the sensemaking processes that occur once strategic change has been initiated. Multiple and divergent CRs cause modifications, and the change outcome depends on which modifications have been made. For instance, when a strategy is modified through interpretation error or strategic interpretation, the change outcome is a loosely coupled strategy. Additional modifications can then be expected since loose coupling implies that there is still a discrepancy between the strategic and the operational level. The planned strategy is different from actual changes, hence different views about what the changes consist of probably persist in the organization. This is similar in the case of assimilation. In the case of accommodation however, multiple and diverging CRs are less likely because consensus has been reached. Changes at the strategic

level mirror changes at the operational level. This does not mean that accommodation is a final or static outcome however, because CRs change over time. Changes over time are likely to either cause further modifications or new discrepancies in CRs. It is therefore possible to move in any direction between the different outcomes. The timing for evaluation of changes therefore becomes extremely important.

If organizations are likely to move between different types of change outcomes over time, then it is also important to speculate on when they are *unlikely* to move between different outcomes. This is most likely linked to the underlying reasons for initiating change. If the reason for introducing change in the organization is predominantly based on legitimation purposes (wanting to show others that the organization is keeping in tune with new business ideas etc), then a loosely coupled change outcome is likely to occur and to persist. It provides the organization with credibility externally, while internally it allows the organization to focus on efficiency without too much “disturbances” from changes. If the rationale behind the changes on the other hand consists of performance benefits, which can only be gained based on the philosophy and principles within the new strategy, then it is likely that the organization moves towards an accommodation outcome over time.

8.2 Corporate Level Outcome

How did the change outcomes affect performance at the corporate level? The BRA change process was initiated to streamline work across the business units. This was supposed to create efficiencies and result in cost cutting for the corporation. When the business units only partially implemented the changes, then naturally some of these efficiencies could not be realized. The corporate level change outcome will always at least consist of an aggregate of the change outcomes in the business units. In this research, only three of twenty-nine¹ potential business units were included in the study. Based on the partially implemented strategy in the three business units, the corporate outcome must necessarily fall in the partially implemented category as well.

¹ Based on the implementation plan from 1998, see appendix B

The three business units, as well as the other business units in the corporation had implemented the IT system. Although it was not always used exactly as intended, it was being used quite successfully. Organizational elements involving new work processes were mostly implemented in terms of operations and maintenance. Empowerment and responsibilities down to the lowest level were partially implemented but middle managers had not been significantly reduced, nor taken on much of a different role.

In the BRA Final Report, the corporate BRA Program, which was responsible for the BRA change process, evaluated the change outcome and discussed experiences and learning, which could be applied in future change processes. The report states: *“According to the objective, Statoil has introduced seven group work processes through BRA: accounting, finance, human resources, procurement and supply, operations and maintenance, sales and distribution and project development”* (Pg.1). The report continues: *“The BRA project has been completed in a shorter period of time than was estimated at the start of the project in the autumn of 1996, and approximately 10 per cent below budgeted costs. In accordance with the objective, Statoil has introduced an administrative solution which is flexible in relation to both changing organisational frameworks and different geographical locations”* (pg. 1)

The report presents a number of suggestions based on what worked well and what needs to be improved in future change processes. Overall the evaluation concludes that the strategic goals were reached within less time and at less costs than estimated. The change appears to have been a success. This is in contrast to the findings of partial implementation in the business units and reveals a discrepancy between the strategic (corporate) level and the operational (business unit) level, which indicates that the change outcome at corporate level can be characterized as assimilation.

In the report, there are hints that the change process might not have resulted in attainment of all initial goals, such as in the following statement: *“In the BU [Business Unit], it is important that the action plans which the units create during the implementation of BRA are realised. Units with inadequate plans or unclear relationships to the BRA processes must be followed up. It is vital that process owners have the resources to document and follow up the implementation through the verification and further development of best*

practice...A change project such as BRA requires active involvement from the management. Disloyalty to a decision to implement change must bring consequences” (BRA Final Report pg.2).

8.3 Discussion of Findings

Surprisingly many modifications occurred late in the implementation process. This was surprising because the preliminary research model predicted that early implementation decisions would set the stage for later ones, and in a sense frame the process (path dependency/sequencing). This was clearly not the case. On the contrary, the most significant modifications were occurring at the end of the corporate implementation period, which lasted for four years. Not only did the modifications occur late from a corporate perspective, but within the business units, modifications tended to occur relatively late as well, and usually after local formulations were completed.

In case C, a major modification took place before implementation, and this modification had serious implications for other business units as well, as other units followed up with formal evaluations that documented the reasons for dropping some BRA elements. The question then arises – had this business unit been the first to implement BRA, would modifications then have occurred earlier?

The answer is most likely no. Based on the data, at least three reasons for this seem plausible. The first reason concerns the relationship between time and modifications, and it strengthens the appropriateness of using sensemaking theory to understand modifications. Sensemaking takes time. It takes time for the business units to grasp what the corporate decision is all about. *Top managers* in the business units are usually the first ones to begin to make sense of the changes. For employees, the sensemaking process begins later, and conflicts, sensegiving and modifications therefore appear late in the implementation process. In the third case a formal modification was made early, but only because this unit could draw on years of experience by other business units within the corporation. The basic arguments for making modifications were no different in the third unit, but they were presented more matter-of-factly and voiced through a legitimate channel – a formal report.

Most key concerns (such as consequences of flattening the organization, losing their managers, learning new skills and forgetting their specialized skills) raised by employees in case C had already appeared, years earlier, in other business units, without resulting in modifications.

The second reason that modifications appear late has to do with changes in CRs over time. Initially BRA was seen as very rigid and top steered by business unit members. Management and employees in the first two business units described that they saw no way to affect the change content, nor the process – particularly when it came to the IT system. Over time however, more and more indications signaled possibilities to affect not only the change processes in each particular business unit, but also the change content – especially the OD elements. One strong signal was the UPN decision to open up for local variations. It took surprisingly long before this signal reached lower levels in the business units. In the mean time corporate managers were being quoted as having indicated flexibility at meetings, larger BRA gatherings and in more informal connections. So, the CRs about content changed over time both among corporate members and among business unit members. As time passed modifications became increasingly accepted.

A final reason modifications appeared late in the change process has to do with learning. The implementation process was designed to ensure optimal resource allocation and learning. Focusing on one or a few business units at a time was supposed to build competence over time and to build a pool of experiences. The business units did learn from each other, particularly through direct contact between the business units. They did not however, learn how to implement BRA better. Instead they learned how they could legitimately avoid implementing some of the components in the BRA strategy by making different kinds of modifications.

9. Conclusions and Implications

This chapter consists of conclusions and implications. A brief summary, emphasizing the main contributions of the study, leads up to a presentation of practical implications. Theoretical implications and suggestions for future research follow.

9.1 Contributions

The main goal of this study has been to reveal and explain how planned strategies are changed upon implementation. A tentative research model was developed by combining strategy implementation literature with more emergent change models, also drawing on implementation research from other fields such as innovation and public policy research. This, while useful to initiate research, was found to be incomplete in answering the research questions.

This study shows that modifications do occur in implementation processes. A typology of different types of modifications was developed and it might facilitate and simplify identification of modifications in the future. The inductive analysis revealing the different types of modifications concluded that modifications are not always decision-based and formal changes in plans, but also include change actions by organizational members.

A major reason for modifications is suggested. Preliminary analysis of the data indicated that the sensemaking perspective best explains why modifications occur. Modifications occur because organizational members and groups try to make sense of the change content, process, and context. They develop multiple, and sometimes diverging, CRs based on sensemaking processes. Diverging CRs either differ among organizational groups or change over time within the same group. When multiple and divergent CRs exist, one of three things is likely to happen. (1) The strategy is modified. (2) The groups/members enter into conflict. (3) The groups/members try to affect each other's views through sensegiving. Early modifications are likely caused directly by multiple and diverging CRs, based on misunderstandings or local formulations of the

strategy. Later modifications are more likely caused by conflict handling or sensegiving activities.

This research also contributes to research and practice on evaluation of change processes. Three intermediate change outcomes, between implementation failure and implementation success were uncovered. Different types of modifications were closely linked with the different change outcomes. Some modifications lead to inconsistencies between organizational levels (strategic level and operational level), while other modifications resulted in inconsistencies in plans over time. This finding helps us predict the effect different types of modifications have on change outcome. The finding also emphasizes the importance of timing when performing change evaluations. Change outcomes are dynamic. Evaluations, based on traditional estimations of success and failure, do not incorporate how the degree of change tends to vary across organizational levels and over time.

9.2 Limitations

The most obvious limitation of this study, as with most case studies, concerns the possibilities to generalize from the findings and the objectivity of the findings.

Case studies can include a large number of cases, although usually case studies consist of one or a few cases. Here three business units were chosen as cases, but the change process was also studied at the corporate level. Three cases does not allow for generalization to a greater population. In this inductive study, the goal was to build theory from data and hence to generalize to theory, not to a larger population. The applicability of the theoretical model that was developed can only be assessed through future studies.

Another well-known limitation of qualitative studies is the question of objectivity. Qualitative researchers cannot avoid bringing some of their own ideas and meanings into the research. While there is always a risk that data collection is affected by a subjective researcher, all interview data (with only one or two exceptions) were transcribed verbatim and all interviews and secondary documentation are available in a database and can be recoded and

analyzed again. The analysis procedures have been described carefully and specifically to allow other researchers to follow the theory-building process.

While precautions have been taken to increase the validity and reliability of the study, there is always a risk that another researcher would come to quite different conclusions based on the same data material.

9.3 Practical Implications

Many organizations struggle to implement strategies and the lack of theoretically based research and theoretical perspectives on implementation does not help. This study explores changes in strategy during the implementation process and presents different types of and reasons for modifications along with a suggested theoretical perspective.

A sensemaking perspective on implementation processes predicts that modifications in planned strategies do not necessarily occur early in the change process. The focus on initial phases in change processes may thus be exaggerated. If what is decided in early phases is likely to be modified later, then why spend so much time trying to improve early decisions? Because good decisions make modifications unnecessary? From a sensemaking perspective, modifications are bound to occur regardless of the quality of the initial plan. Initiations of change *always* trigger sensemaking processes. Only a recognition of and understanding for the sensemaking that occurs at all levels in the organization over time, can improve the likelihood of success in future change processes.

The findings in this study have practical implications for: (1) the planning of strategic changes; (2) change management; and (3) evaluations of the changes and the change process.

Most people agree that careful planning remains essential in strategic changes. In this study it was found that major modifications in strategy occur despite careful planning. Organizations therefore need to include more flexible and emergent features in their plans and they need to be careful in allocation of resources, to ensure that a majority of the resources are not spent planning for

the change. Sticking to initial plans can be important for top managers for several reasons. Managers who make radical decisions, and succeed in acting on decisions are often seen as strong and good leaders. Managers who change their decisions and are open for adjustments, are more often perceived as weak or indecisive. Modifications need to be introduced in a more positive light in organizations and not just viewed as a loss of control. Modifications leading to accommodation outcomes can be a sign of advanced sensemaking. When organizational members at the business unit modify corporate intentions, then one reason for this could be that they have been able to internalize the changes by adapting both themselves and the strategy.

The findings also have implications for management of the change process. A sensemaking perspective on implementation suggests that modifications occur throughout the change process as organizational members make sense of the change process and construe different realities over time. The time sensemaking requires should not be underestimated. Top managers cannot just drop finished plans onto lower levels and expect business unit members to understand and accept the changes. Change managers need to provide channels for sensegiving and allow for two-way communication. Fast-paced changes may not allow enough time for sensemaking, which is especially important if the changes involve thinking about and performing daily activities in a different manner. Pressuring business units and lower organizational members to perform changes will not eliminate differences in CRs. Increasing pressure and control might instead have detrimental effects on work environment. Involvement in early phases might increase understanding among lower level employees but it does not mean everyone understands and agrees. Likewise, a lot of information does not mean everyone has received and understood the message.

Finally, managers need to be more attentive towards how implementation success and change success is defined. Should success in large-scale and long-term changes only be related to carrying through original intentions? This study suggests that modifications are not only negative, and that other change outcomes exist, within the partially implemented category. These change outcomes capture discrepancies in changes across organizational levels and

over time. The study also finds that change outcomes are likely to change over time, which makes the timing of evaluations of outcome critical

9.4 Theoretical Implications and Suggestions for Future Research

The findings in this thesis have theoretical implications for strategic change and implementation research. The implications also lead to suggestions for future research. Theoretical implications include rethinking the definition of implementation success, considering new theoretical perspectives for understanding change and implementation processes, merging emergent and planned change perspectives, continuing the recent trend of coupling research on change content with change process, and including multiple levels of analysis in change and implementation research.

Implementation success has traditionally been viewed as carrying through initial intentions. This study shows that change outcomes, which would usually be considered implementation successes, do not always represent change success at all organizational levels. Three intermediate change outcomes were found here, but further exploration of alternative change outcomes in between change failure and change success will likely reveal a multitude of outcomes along several dimensions. Future research should therefore continue working on defining implementation success and explore more intermediate outcomes for a useful typology.

The sensemaking perspective on implementation processes revealed shortcomings with many existing implementation studies, which focus on issues such as involvement. In measuring the level of involvement or degree of commitment, existing research seldom incorporates the many different views within an organization in terms of these matters. Alternative theoretical perspectives can shed light on these types of challenges. Findings from a sensemaking perspective indicate that rapid change processes can be problematic because they do not allow time for sensemaking, and thus risk that changes are only made at a strategic level and not further down in the organization. The sensemaking perspective on implementation also raises additional research questions. Future research should follow up on Isabella's

(1990) initiative and study changes in CRs over time, and how reactions to changes, both at management level and employee level, vary over time. Future research should also follow up issues such as when attitudes towards change develop (Lines, 2002), how employees react to change (Bareil & Savoie, 1999; Stensaker et al. 2001), and how managers deal with emotions in change processes (Huy, 2002). In addition, future research should address how descriptions of a change process change over time. This is important because employees' recollection of an earlier change process is likely to affect how they view future change processes.

The gaps in degree of change at different levels in the organization show that research which only measures change at one level risks drawing conclusions about organizational change on a limited and narrow basis. Future assessments of strategic and organizational change need to include the lower levels in the organization, where change actually takes place in everyday activities.

Planned change processes cannot be adequately understood by drawing on a rational-analytical perspective that assumes everything can be planned in a rational manner. Future research needs to draw on studies of both emergent and planned change processes in order to further explore the challenges in implementation processes. These challenges are mainly connected with the emergent features of any change process. A sensemaking perspective has been suggested here, but other theoretical perspectives should also be employed to contribute to greater understanding of complex challenges in change processes.

Finally, this study revealed that decisions and plans made during strategy formulation do not remain static upon implementation. Only by combining strategy content research with strategy process research can modifications and other emergent features be revealed and explored. Future research on change and implementation processes therefore need to study strategic decisions over time, and explore both formulation and implementation processes simultaneously. Research on making the right decision, which has here been referred to as strategy content research, or formulation process research, remains crucial for strategic change. However, strategic decisions should not be linked directly to organizational performance because plans are likely to be changed upon implementation as organizational members make sense of the

changes. Jeffrey Pfeffer (1992: 19) put decision-making into perspective by stating the following:

- *A decision by itself changes nothing.*
- *At the moment a decision is made, we cannot possibly know whether it is good or bad.*
- *We spend more time living with the consequences of our decisions than we do in making them.*

On the basis of this, he suggests that managers should spend less time on the decision-making process and more time implementing decisions and managing the consequences of their decision.

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Appendices

Appendix A: Glossary of BRA Related Terms

Appendix B: Implementation Plans

Appendix C: Example of an Interview Guide

Appendix D: Overview of Preliminary Analysis Reports

Appendix E: Coding Criteria at Three Points in Time

Appendix F: Within-Case Analysis for Case A, B, and C

Appendix A: Glossary of BRA Related Terms

(the) Bible

Business unit B's documented and detailed plan on how to move from old way of organizing to new way of organizing. Focused on the organizational development (OD) changes within BRA.

BRA

Better Faster Administration (in Norwegian: Bedre Raskere Administrasjon). A large-scale change program in Statoil. The decision on BRA was made at corporate level in 1996. BRA would be implemented over four years.

BRA Basis

The early work of the Corporate BRA Program consisted of a set of core work processes and a common SAP solution which were named BRA Basis.

BRA Skill Center

One of four units within the Corporate BRA Program. The other units were Staff, Working Process, and Implementation. BRA Skill Center included BRA Basis, SAP Technology, Training and Documentation, and Change Management.

Corporate BRA Program

The BRA Project Group at Corporate Headquarters. Consisted of hired consultants, staff members, and members from the different business units. The Corporate BRA Program worked for over one year after the decision to implement BRA had been made. The program developed BRA Basis, and BRA implementation plans.

Discipline-based organization

A way of organizing work. Different disciplines, such as mechanics, are grouped together. Allows for specialization, but is different from integrated team based organization where the different disciplines are mixed in teams.

IBD

The Industry's Best Practice (in Norwegian: Industriens Beste Driftspraksis). Another, more narrowly focused change program in the upstream business units in Statoil. IBD focused on teamwork and empowerment within operations and maintenance. This decision was made at UPN level prior to the BRA decision.

Integrated Teams

Teamwork means responsibilities for performing work is placed with a team. Team members can have different roles, which to some degree replace middle managers' roles.

Integrated teams means teams consisting of people from different positions, e.g. mechanics, operators, and automation.

Local Implementation Project

The BRA implementation project group within each business unit.

OD changes

BRA changes that involved organizational changes, as opposed to IT changes.

Process

A way of performing work related activities.

Roles

Description of tasks connected with a specific work process in BRA. A role says something about access in SAP, but it is also used to indicate position and responsibilities.

SAP/R3

Systeme – Anwendungen – Produkte

An IT-system that integrates different organizational tasks such as procurements, stock, accounting etc.

Situational Teams

Situational team means team organization on a situational basis. Team members only work together to solve specific tasks. The team members are otherwise placed with their discipline, eg. mechanics in one group, operators in another.

Teambased organization

Teamwork means responsibilities for performing work is placed with a team. Team members can have different roles, which to some degree replace middle managers' roles.

UPN

The Norwegian Upstream Division. Organizationally located between corporate headquarters and business unit level but included in the corporate level in this thesis.

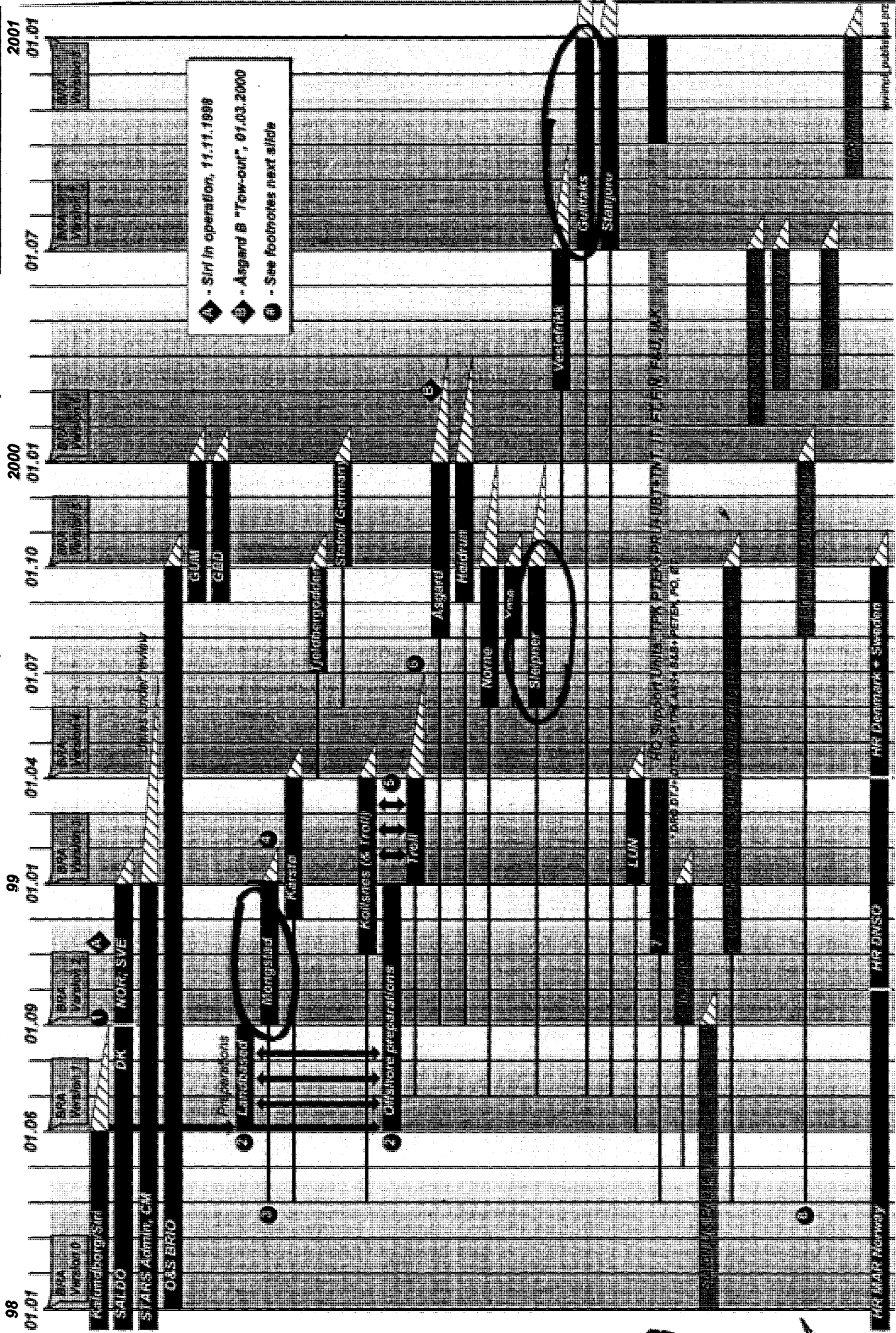
Work Processes

A way of performing work. Refers both to a general organizational level, e.g. accounting, procurements etc., but also to a more specific level which has to do with a particular task such as doing maintenance on a pump offshore.

Appendix B: Implementation Plans



Implementation Plan (revision 01.03.98)



MR MAR Norway

MR DNSO

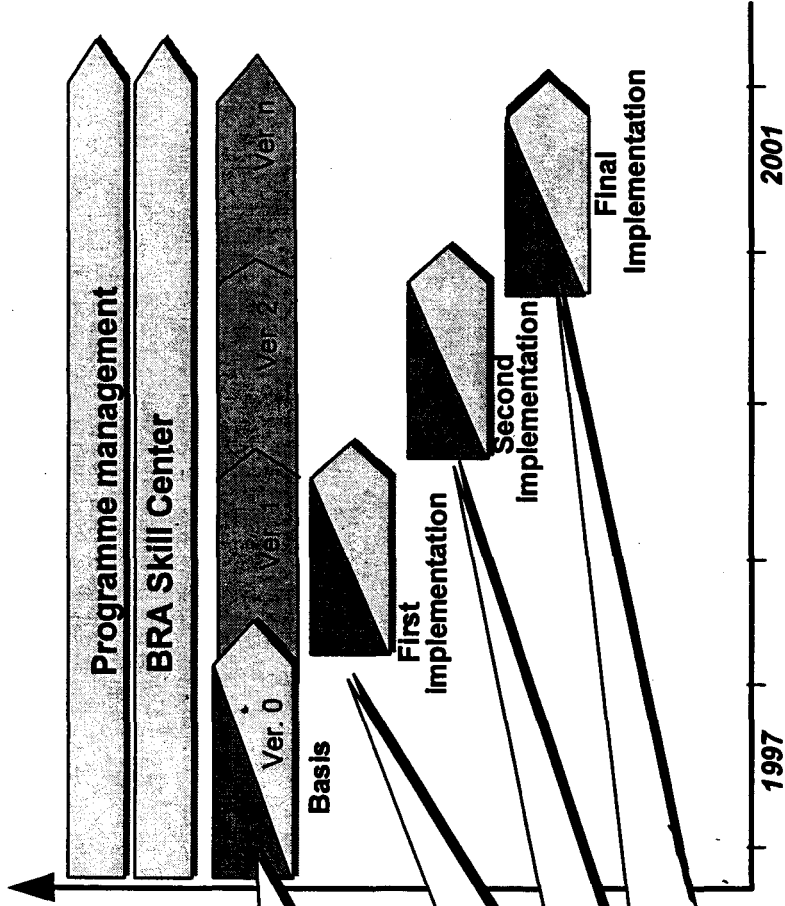
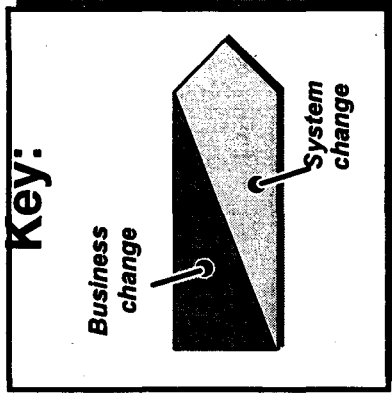
MR Denmark + Sweden

revised published print

BRA

The BRA programme directs the process of change

STATOIL



Basis defines and constructs everything that is to be collective

Implement this basis and further develop solutions

Business change must be introduced hand-in-hand with SAP to realise gains

Appendix C: Example of an Interview Guide

- 0) Who is the informant**
 - Describe your role in the organization
 - Describe your connection with BRA/your role in the BRA change process

- 1) Describe the BRA change process in your business unit**
 - What has been in focus so far? What has been implemented so far? What has not been implemented yet? What will the unit be focusing on in the near future?
 - How do actual changes correspond with expectations?

- 2) Give your evaluation of how the following has worked out in the BRA change process in your business unit**
 - Communication/information (amount, mode, usefulness etc)
 - Possibilities to influence/participate
 - Management's capability to motivate employees to change
 - Training (amount, content)
 - Management of the change process (Who is in charge, corporate or local managers/actors?)
 - Performance measurement and control

- 3) Change Management and flexibility. Changes in plans.**
 - Have you experienced any changes in BRA during implementation?
 - What would you say were the reasons for those changes?
 - Would you say the changes were positive or negative? In relation to what (implementation success, outcome, performance, corporate performance)

- 4) Realization of benefits**
 - Describe the process around performance measurement and control of the implementation process
 - Do managers focus on realization of benefits based on BRA changes?
 - Are there specific goals with BRA changes?
 - Do you know if any of the goals are broken down to lower levels?
 - Would you say the goals are realistic?
 - Do you know of any process goals that indicate how well the implementation is going?
 - What are the main challenges when it comes to realization of benefits?
 - Which benefits do you expect to gain from BRA?
 - How have the expectations for benefits changed over time?

5) New work processes (esp. integrated teams)

- How does the way you perform your job differ today from prior to the BRA changes?
- What does integrated teams mean to you?
- Would you say the BRA way to work has been adopted by the organization?
- Has your competence changed since you began to work in teams?
- What has been done to gain acceptance for the new work processes?

6) Cooperation/relationship between BRA and other change initiatives

- What other change processes affect you in your daily work?
- Would you say your unit changes too seldom/too few changes, too often/too many changes, or just enough?
- How does the BRA change initiative fit with other organizational and strategic changes in your unit?

(For local implementation project members only):

- How would you describe the relationship between
 - The local implementation project and the business unit/line management?
 - The local implementation project and the corporate BRA Program?

7) Ideal change process

- Has there been any experience transfer/learning? How?
- What would you do differently if the BRA change project began today. What kind of advice would you give the business units who have not yet implemented BRA?

Appendix D: Overview of Preliminary Analysis Reports

BRA AT MONGSTAD – Six months after “take-off”

September, 1999

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- 1 Introduction**
 - 1.1 Introduction
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 - 1.3 Organization of the report
- 2 Project Steering**
 - 2.1 Expectations to BRA
 - 2.2 Implementing SAP
 - 2.3 Planning activities - adjustments
 - 2.4 Summary
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 - 3.1 Commitment to benefits case
 - 3.2 How to realize benefits
 - 3.3 Costs related to BRA
 - 3.4 Summary
- 4 Change Management**
 - 4.1 Commitment among management
 - 4.2 Involvement and participation
 - 4.3 BRA in theory vs. practice
 - 4.4 Summary
- 5 Information, Communication and Training**
 - 5.1 Quantity of information
 - 5.2 System training
 - 5.3 Change management training
 - 5.4 Summary
- 6 New Work Processes**
 - 6.1 Difference between old and new work processes
 - 6.2 BRA as compared with OD'96
 - 6.3 Efficient solutions
 - 6.4 Flat organization
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 - 7.2 Systemintegration
 - 7.3 Summary
- 8 Conclusions**

BRA/IBD implementation at Sleipner

November 2000

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1.2	Findings
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2	Integrated teams
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2.2	Challenges
2.3	Reactions
3	Knowledge of BRA/IBD
3.1	Understanding of BRA/IBD
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4	Commitment
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5	Work Environment
5.1	Motivation and job satisfaction
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6	Conclusions

Description and Discussion of BRA/IBD at Gullfaks

April 2001

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Introduction

General description of BRA/IBD at Gullfaks

- Scepticism towards BRA/IBD – Is this useful for us/Do we need this?
- Involvement and commitment - We want everybody to agree!
- Successful Process – We have done this well!

Modifications in the change process – The road is built as we go along!

- Which modifications have been made?
- Why have modifications been made?
- Postivive or negative modificaitons?

Measurements in the change process – How do we know we are going in the right direction?

- Goals and benefits case
- Measurements during implementation

Implications

Appendix E: Coding Criteria at Three Points in Time

Data Analysis: Criteria for Categorizing data Fall, 2000

<p>Content</p> <ul style="list-style-type: none"> - Substance - Specificity - Degree of change 	<p>The formulated strategy, ends and means of the change program</p> <p>What are the elements in the strategy e.g. new technology, new organizational structure. Are the elements multiple, conflicting, inconsistent and so on?</p> <p>Are the elements general/strategic level or specific/detailed? Are there any vague or hidden goals?</p> <p>The gap between how the organization is today and in the future according to the new strategy</p>
<p>Process</p> <ul style="list-style-type: none"> - Number of people involved - Working out the details - Path dependency/sequencing 	<p>Many people can lead to many interpretations and many wills and priorities Who/how many are involved and how is work divided. How is information shared?</p> <p>Many details are worked out in the process, often because they are not know/cannot be known in advance. Which details are worked out and how is this done?</p> <p>In what sequence are things done/do events occur?</p>
<p>Context</p> <ul style="list-style-type: none"> - inner context - outer context 	<p>Organizational structure, culture, politics and available resources which might affect the change content or process.</p> <p>Economic, social and political factors at the competitive, industry, national or international level which might affect the change content or process.</p>

DESCRIPTION OF CASES
How the data are presented/categorized
May 2001

Context	The circumstances in which a particular event occurs
Description of Local Context	Inner context. Facts about the division, platforms, the workforce
Gullfaks BRA Project	Who works in the local BRA project and how is it organized?
Relationship to Corporate BRA Program	How is the relationship between the division and the corporate BRA Program. Between the local BRA project and the corporate BRA Program?
other (not included)	Outer context (covered at higher levels of analysis?) economic, social and political factors

Process	The implementation process is the process by which strategies are put into action. *
Description of Intended Events	what happens when? Chronologically description of events acc. to plans
Intended Management of the Change Process	(a) organizing responsibilities and decision-making (b) working out of details (c) involvement (d) information and communication (e) experience transfer (f) measurement and control (g) commitment
Description of Actual Events	What actually happened chronologically
Actual Management of the Change Process	(h) organizing responsibilities and decision-making (i) working out of details (j) involvement (k) information and communication (l) experience transfer (m) measurement and control commitment

* In my research the implementation process is defined as when a formulated strategy has been determined/decided on. Everything happening afterwards at the divisional level is thereby included in the implementation process.

Content	The formulated strategy. Ends and means.
Intended Content; Substance, Specificity and Degree of Change	What is supposed to change, are the ends/means clear, consistent and specific, or inconsistent, conflicting, vague, multiple? Scale/scope/depth of change
Reactions to Intended Content	How do people react to the intended content
Interpretations of BRA Content	Do people try to interpret the intended content? What types of interpretations are made of the intended content and how do interpretations occur?
Actual Content; Substance, Specificity, and Degree of Change	What actually changes?

Modifications	any changes or alterations – large or small – in the formulated strategy
Identification of Modifications	Which mod's have been done
Reasons for Modifications	Why?
Reactions to Modifications	How are modifications perceived

Categories for
Coding
Fall 2001

Q.S.R. NUD.IST Power version, revision 4.0.
Licensee: Inger G. Stensaker.

PROJECT: Dr-analyse, User Inger, 10:52 am, Jun 17, 2002.

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(1) /Statoil Corporation
(1 1) /Statoil Corporation/UPN
(2) /BRA project
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(2 1 1) /BRA project/Content of BRA/Glossary
(2 2) /BRA project/Context
(2 2 3) /BRA project/Context/Relations
(2 3) /BRA project/Implementation in bzns units
(2 3 1) /BRA project/Implementation in bzns units/Intentions & Plans
(2 3 2) /BRA project/Implementation in bzns units/Realized
(2 3 4) /BRA project/Implementation in bzns units/Experiences and Learning
(2 4) /BRA project/Modifications at corporate or project level
(2 4 1) /BRA project/Modifications at corporate or project level/Identification of modifications
(2 4 2) /BRA project/Modifications at corporate or project level/Reasons why modifications
(2 4 3) /BRA project/Modifications at corporate or project level/Effects of modifications
(2 4 4) /BRA project/Modifications at corporate or project level/Reactions to modifications
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(3 2 1 2 7) /Mongstad/Process/Intended Process/Management of process/commitment
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(4 2 2 2 7) /Sleipner/Process/Realized/Actual mgmt of process/commitment
(4 2 2 3) /Sleipner/Process/Realized/Reactions to change process
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(4 3 3) /Sleipner/Modifications/Reactions to mod's
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(D) //Document Annotations
(F) //Free Nodes
(F 1) //Free Nodes/Excessive change
(F 2) //Free Nodes/Interdependencies
(F 3) //Free Nodes/Costs
(F 4) //Free Nodes/Time used
(F 5) //Free Nodes/Attaining Goals
(T) //Text Searches
(I) //Index Searches
(C) //Node Clipboard - 'Relations'

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Appendix F: Within-Case Analysis for Case A, B, and C

Within-Case Analysis: Case A

MONGSTAD	Phase I Preparation/pre-project	Phase II BRA Implementation Project	Phase III Continuous Improvement Work
Time & Duration	May 97- Sept. 98	Sept.98 – Jan. 99	March 99 – Dec. 01
Main activities	Data cleaning. A few analyses required by BRA. Appointing Project members	Implement SAP and work processes.	Organizational Changes. Realization of benefits. Somewhat different depending on which of 3 leaders.
Context	<i>Corporate Stepchild</i> Main challenges are to reduce and control costs. Stepchild in corporate connection Not very good relationship with headquarters	<i>No Sense of Urgency</i> No big change needed	New CEO in Statoil Corporate restructuring Poor results in the industry in the beginning of the phase turn to great results later in the period. Shell comes in with 20% ownership Corporate packages are presented to lay-off people
Process	<i>Limited preparation</i> Involvement: SM people involved in BRA formulation at HQ. Details: No details worked out at Mongstad at this time Sequencing: Parallel IT/OD implementation planned	<i>Project Steering</i> Involvement: A combination of SM people and other people in project organization. Limited involvement. Top-down process. Strong project steering. Details worked out by project group which drew on central BRA people and key people in organization Sequencing: all focus on IT. OD activities transferred to local group.	<i>3 Distinct Processes</i> 3 distinct processes lead by three different people 1) Vague and slow paced process focused on trying to figure out what to do 2) Very focused and high tempo process. Planned in detail 3) Broader again, opening up for more general issues such as value chain etc.
Content	<i>As intended from BRA</i> SM sees their organization as similar to and in line with the BRA principles.	<i>Limited focus</i> Focus on IT/SAP	Focus on OD & Changes 1) Broadly 2) Narrow focus on O&M 3) Broad again
Modifications		Corporate: A modified implementation plan Greater responsibility to the line Unfinished product (SAP) delivered from BRA Local: all focus on IT	Corporate: Focus on D&V Unfinished components in BRA Local: Practical use of BRA – pick and choose principles Local interpretations of teams, task responsibility etc. Process changes over time

Within-Case Analysis: Case B

SLEIPNER	Phase I Preparation/pre-project	Phase II BRA Implementation Project	Phase III Continuous Improvement Work
Time & Duration	March 99 – Dec. 99	Jan. 00 – June 00	Aug. 00 – Dec. 01
Main activities	Analysis of OD changes	OD implemented Jan., 2000 IT implemented April, 2000	Testing and evaluation period
Context	<p><i>High self-esteem</i> Upstream unit with flat organization. Very good relationship with headquarters and “best-in-class” reputation among business units.</p> <p>Main challenges were on-off culture and close offshore ties.</p> <p>June, 99 - UPN Guidelines</p>	<p><i>Employees in shock</i></p> <p>Employees were very upset with the content, especially concerning splitting disciplines into teams. They were also upset about the change process due to symbolic involvement and a lack of support.</p>	<p><i>Calming Down</i></p> <p>Summer vacations and revision stop cooled things down.</p> <p>A new operations manager arrived.</p>
Process	<p><i>Intense analyses lead up to big bang</i></p> <p>Appointment of project leaders. One for OD and one for IT, both internal.</p> <p>OD changes were dealt with first.</p> <p>Medium to high involvement. A few people worked out details in “the Bible”</p>	<p><i>From Analyses to paralysis</i></p> <p>The local implementation project focuses on IT, but the organization was paralysed due to OD changes.</p> <p>Management pushes changes but give little support.</p> <p>Middle management criticize the “push-the-button” mentality among top managers.</p>	<p><i>Step-by-step</i></p> <p>Process support and control was imposed by management. Tempo was reduced, resources increased and three dedicated support people were put in. 3 process evaluations and a 1-year evaluation were performed.</p>
Content	<p><i>BRA + IBD</i></p> <p>Integrated teams Roles New leadership roles Elimination of middle managers New governance model</p>	<p><i>Large-scale changes – on paper only</i></p> <p>Few actual changes in work processes. Teams meet daily, people use SAP, but few changes can be found in work routines. “The map doesn’t fit the terrain”.</p>	<p><i>Back to the drawing board</i></p> <p>The 1-year evaluation sends the unit back to the drawing board. Integrated teams are changed to discipline-based teams. Middle managers are reintroduced. Some of the team roles are eliminated.</p>
Modifications	Corporate level: UPN Common Guidelines open up for flexibility	Local level: Mismatch between actual changes and planned changes	Local level: Process is slowed down. Content is modified by dropping many of the OD components

Within-Case Analysis: Case C.

GULLFAKS	Phase I Preparation/pre-project	Phase II BRA Implementation Project	Phase III Continuous Improvement Work
Time & Duration	Nov. 98 – April 00	May 00 – Nov. 00	Dec. 00 – Dec. 01
Main activities	Analysis of OD changes Step-by step model presented in April 00	Implementation of IT and OD in November 2000.	Training and evaluation
Context	<i>Wide-spread scepticism</i> Upstream unit Sceptical top management New CEO in the unit in April, 2000. June 1999, UPN Common Principles	<i>Massive resistance</i> A consequence analysis documents massive resistance among employees regarding the proposed changes.	<i>Ready for change</i> Managers and central project members argue that the organization is ready for change through all of the preparatory work.
Process	<i>Intense analysis leading up to step-by-step model</i> Heavy involvement through Continuous Improvement (KF) groups. Details worked out through these groups as well. One implementation leader appointed for both IT and OD and until end of 2001.	<i>Consensus and politics</i> A new and revised model is worked out based on input from the consequence analysis. Broad involvement. A lot of politics in order to ensure consensus.	<i>One step at a time</i> Management training and support. Details are continuously worked out based on learning and evaluations.
Content	<i>BRA+ IBD</i> A work group suggests a 4-step model in line with both BRA and IBD.	<i>Local adjustments required</i> The model is revised twice and becomes a modified two-step model.	<i>Step 2 implemented</i> Evaluations in the process show that BRA/IBD have been implemented. 1-year evaluation shows problems with some elements.
Modifications	Corporate level: UPN guidelines open up for flexibility. Content in line with IBD and BRA, but with longer time-frame.	Local modifications in content were required based on resistance	Modifications based on 1- year evaluation?