MARJOLIJN DIJKSTERHUIS

Intelligent Adaptation

Organizational dynamics of cognition and action in the changing Dutch and U.S. banking industries

co**gnit**ion

INTELLIGENT ADAPTATION

Organizational dynamics of cognition and action
in the changing Dutch and U.S. banking industries

INTELLIGENT ADAPTATION

Organizational dynamics of cognition and action in the changing Dutch and U.S. banking industries

INTELLIGENTE ADAPTATIE

Organisatiedynamieken van cognitie en actie in de veranderende Nederlandse en Amerikaanse bank industrieën

Thesis

to obtain the degree of Doctor from the Erasmus University Rotterdam
by command of the Rector Magnificus
Prof.dr.ir. J.H. van Bemmel
and according to the decision of the Doctorate Board

The public defence shall be held on
Thursday September 18, 2003 at 13.30 hrs

by
Marjolijn Simone Dijksterhuis
born at Amstelveen

DOCTORAL COMMITTEE

Promotors:
Prof.dr. F.A.J. van den Bosch
Prof.dr. H.W. Volberda

Other members:
Prof.dr. J.M. Bartunek
Prof.dr. A.Y. Lewin
Dr. G. Patriotta

Erasmus Research Institute for Management (ERIM)
Erasmus University Rotterdam
Internet: http://www.erim.eur.nl
ERIM Electronic Series Portal: http://hdl.handle.net/1765/1

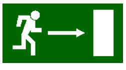
ERIM PhD series in Research in Management 26

ISBN 90-5892-048-8

To my family

PREFACE

Writing the preface encourages to look back on the process that led to the book it introduces. It was a long and interesting journey with some steep hills and impassable paths but there was always something to discover. Along the way were many guides; some people I had met before and some I got to know. They shared the fact that they enabled me to get to the point where I am right now. I would like to use this opportunity to thank them.

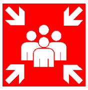


Many managers of ING and Citigroup, in the Netherlands, the United Kingdom, and the United States, made an invaluable contribution to my research. They gave me access to company information and their personal experiences, allowing me to learn many things about my topic and beyond. I would specifically like to thank Hans van Hoogenhuizen (ING) and David Bowerin (Citigroup) for their support, time and patience. Without them, this book had been half its size.

I am indebted to researchers I met both close to and far from home. They inspired me to explore unknown paths and helped me to avoid the gorges. From this group of people, I want to thank Professor Arie Lewin for his mentoring during my stay at the Fuqua Business School, Duke University. I have very much appreciated it! Colleagues from the department of Strategy & Business Environment at the Rotterdam School of Management are also among these people. It was always possible to discuss new ideas –even though these ideas often seemed bigger coming than going.

A special role in the PhD trajectory was played by my promotors Professors Frans van den Bosch en Henk Volberda. They had to manage my passion for exploration, and did this in a remarkable way –by time and time again gently insisting on convergence. I owe much to their support.

Then, there were my friends who provided me with food and shelter along the way –both literally and figuratively. I thank them for their encouragements and patience, for getting me out of the office when it was highly necessary, and for spending good times together. Thank you all so much for accompanying me on this journey. You know who you are.



It was my family that enabled me to go on this journey in the first place. They gave me the confidence and strength to start, and to persist when times were rough. They are the most important people in my life, which is why I have dedicated this book to them. Wherever I will be, we will be close.

Finally, Raymond, Marc and Bregje: thanks for the time and energy you have invested to get me ready to conclude my travels. I have learned not to underestimate the value of closure.

While indicating the end of the formal PhD trajectory, this book is only another step in -hopefully- a life-long learning process. The learnings I gained over the last couple of years are carefully stored in my mind. It is my ambition to apply them whenever it seems appropriate and valuable and to keep building on them –to both exploit and explore. This is what it is about for me.

Marjolijn Dijksterhuis
Rotterdam, August 2003

CONTENTS

CHAPTER 1
INTRODUCTION

More than ever, the "perennial gale of creative destruction" blows forcefully in our industry, whichever way we look. There is no hiding place from the forces of change, not in markets in which we operate, not in the institutional work that surrounds us nor in the technologies that we employ. The world has already changed so much, that I have stopped thinking of banking as an industry in its own right. In 1997 and onwards, we are in the financial services industry (Godfried van der Lugt, chairman of the Executive Board of ING at that time)[1].

Our big challenge is in what we call JENA business –sophisticated corporate banking and market intermediation in the interlinked economies of Japan, Europe, and North America. That's where the competition has become the most fierce. That's where everything has changed. That's where the world keeps score, and that's where success requires global coordination across markets (John Reed, CEO of Citicorp at that time)[2].

1.1 Introduction

The banking industry is one among numerous industries that feature considerable changes in business conditions. Technological advances and regulatory changes have posed challenges to bank managers across the world trying to ensure continuous success of their organizations. As the above quotes indicate, top managers have developed new beliefs about the nature of the banking business and how to succeed in it. Aiming for the translation of these beliefs into organizational practice, they have engaged in adaptation efforts, devising new strategies and organization forms. Scholars working in the areas of strategy and organizational design are keeping a close watch on the increasingly ongoing renewal in banks and the driving forces behind these organizational processes (e.g., Van Wijk and Van den Bosch, 2000; Volberda et al., 2001).

This thesis deals with organizational adaptation processes. Adaptation refers to "change that obtains as a result of aligning organizational capabilities with environmental

---

[1] Source: *The Banker*, January 1997: 16-17.
[2] Source: Interview by Tichy and Charan published in *Harvard Business Review*, November-December, 1990: 135-144.

contingencies" (Hrebiniak and Joyce, 1985: 337) and thence touches the core of strategic management (Chakravarthy, 1982). Adaptive processes comprise both reactive and proactive behavior triggered by external developments. The work presented here specifically deals with the role of cognition in organizational adaptation processes. Defined as "the action or faculty of knowing taken in its widest sense" (Oxford English Dictionary, 1971: 596), cognition mediates between environmental stimuli and organizational action, and is as such central to understanding adaptive behavior (Mezias, Grinyer and Guth, 2001). Various forms of cognition have been discussed in organization literature. Simplified representations (perceptions) of the information environment and beliefs emerging from experience are among the most influential concepts of cognition in organizational change studies (e.g., Bettis and Prahalad, 1995; Isabella, 1990; Tripsas and Gavetti, 2000).

Perceptions and beliefs of top managers are in the forefront of the study, as the strategic decisions and actions that adaptation involves are generally their province. The emergence of new perceptions and beliefs at the decision-making level has been considered a key element of adaptation (Mezias et al., 2001). As suggested, it sets the stage for changes in strategy and organization form (Bettis and Prahalad, 1995), as well as for changes in underlying cognitive elements at the organizational level (Bate, Khan and Pye, 2000). At the same time, significant shifts in cognition have proven difficult to achieve (Mezias et al., 2001; Tripsas and Gavetti, 2000). How decision-makers develop new perceptions and beliefs, and change the form and functioning of their organizations accordingly are therefore critical issues for both academics and practitioners.

From the study emerges a notion of *intelligent adaptation* based on the explicit consideration of interaction between cognition and action. As is suggested, understanding the way in which the deep layer of cognition and the surface layer of action are connected over time and across different organizational levels contributes to effective adaptation. Introducing the research, this chapter deals with the background of the study, its aim and main questions, and its research methodology and setting. It concludes with an overview of the structure of the study.

1.2 Background of the study

Its focus on adaptation positions the current research in one of the most fundamental debates in organization theory. This debate addresses to what extent and how managers can influence the results of their organizations. Despite a ubiquity of research, how organizational adaptation occurs is not at all well understood. Change dynamics are difficult to study, and the different labels to denote change constructs have been inconsistent, hampering knowledge accumulation.

Besides adaptation, concepts such as strategic change and strategic renewal have been employed to indicate efforts within firms to align strategy with changing environmental circumstances (e.g., Floyd and Lane, 2000; Volberda, Baden-Fuller and Van den Bosch, 2001). Scholars have used these terms to denote gradual, long-continued change (Koberg, 1987; Tushman and Romanelli, 1985), discontinuous change (Grinyer and McKiernan, 1990), and both (Miller and Friesen, 1980). Also, first- (e.g., Wolfgramm et al., 1998) as well as second-order change (e.g., Grinyer and McKiernan, 1990) have been discussed in the scope of organizational alignment processes. First-order change is generally defined as the modification of variables within a system. Second-order change refers to a shift from one system to another. Shifts in firms' strategic orientations (Greenwood and Hinings, 1988; Miller and Friesen, 1980) and top-level managers' cognitions (Bogner and Barr, 2000; McKinley and Scherer, 2000) are frequently discussed examples of second-order change.

In the present study, adaptation is the label for denoting organizational alignment processes. The term connotes an image of organizations as open systems (Scott, 1998). Adaptation is not specified here in terms of the pace of change (i.e. incremental-radical). Existing literature lacks insight into whether and how pace of change influences the role of cognition. Therefore, no a priori specification is made in favor of low or high pace. This is different for the distinction between first- and second-order change. Specifying the scope of the research, second-order adaptation is key in the current study. A continuous and widespread interest of both scholars and practitioners in this type of change indicates its importance and complexity. Second-order change confronts organization members with the need to change the fundamental rules they use to interact with the world around them (Mezias et al., 2001). A focus on the rules underlying actions and results sets the stage for a cognitive perspective on organizational adaptation.

Scholars probing second-order adaptation have shown considerable interest in the role of top-level managers' cognition. Because top managers generally have the formal authority to make strategic decisions, their cognitions are assumed to be significant and instrumental (Bettis and Prahalad, 1995; Daft and Weick, 1984; Haleblian and Finkelstein, 1993). Decision-makers' cognition has been examined for its impact on strategic decisions (e.g., Anderson and Paine, 1975), strategic actions (e.g., Meyer, 1982; Yasai-Ardekani, 1986), and performance outcomes (e.g., Barr, Stimpert and Huff, 1992; Thomas, Clark and Gioia, 1993). Moreover, cognition has been portrayed as embodied *in* individuals (e.g., CEO studies), as shared *between* individuals (e.g., top management team studies), and as lodged in organizational repositories (e.g., structures, cultures, resource allocation systems). Various studies have indicated that when environmental conditions change drastically, managers need to change their cognitions accordingly in order to determine the appropriate response for their firm (Barr et al., 1992; Bogner and Barr, 2000; Weick, 1979). The difficulty of such change appears from the examples of failures the literature is sprinkled with (e.g., Barr et al., 1992; Mezias et al., 2001; Tripsas and Gavetti, 2000).

The growing interest in the way decision-makers' cognition evolves in adaptation has advanced a process perspective. Substantiating this perspective, researchers have started to explore the link between decision-makers' cognition and changes in organizations' forms and functioning (Gavetti and Levinthal, 2000; Lyles and Schwenk, 1992; Tripsas and Gavetti, 2000). Two key observations from this work are used as building blocks in the present study. First, an explanation of adaptation processes and outcomes benefits from the consideration of cognition beyond the decision-maker level *in addition to* decision-makers' cognition. Schneider and Angelmar argue that "the 'thinking organization' need not be taken as a metaphor, but as a systems' property which enables organizational learning and renewal at a time when routines, or 'mindless behaviour', need to be reevaluated" (1993: 365). Several studies support this argument. For example, in Labianca, Gray and Brass (2000)'s analysis of an organizational change project, employees' cognition is a critical success factor. Heracleous and Barrett (2001) have shown the importance of different stakeholders' cognitions in adaptation. Secondly, a good understanding of adaptation requires the consideration of cognition *over time*. Studies applying a process view on cognition in adaptation have reached interesting conclusions. For example, Isabella (1990) has found different stages in the evolvement of managerial interpretations. Gioia and Chittipeddi (1991) portray adaptation as iterations of sensemaking and sensegiving efforts. Finally, MacIntosh and MacLean (1999) discuss surfacing, reframing, and enacting of organizing principles and business logic as a key part of organizational transformation.

1.3 Research aim & question

The present study aims to *contribute to the understanding of how organizational adaptation takes place*. It does so by examining the role of cognition in such processes. The overall research question pertaining to this aim and focus is:

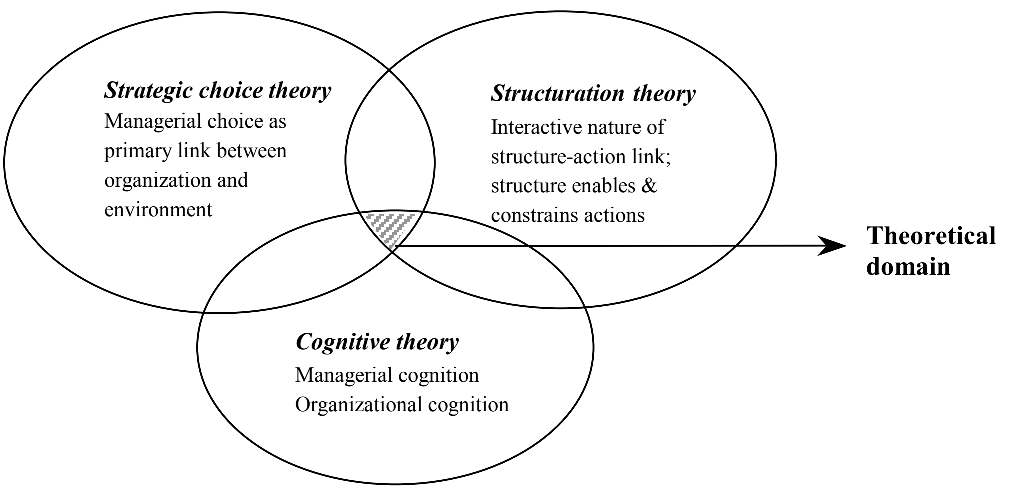
How are cognition and adaptation related?

Two issues are specifically considered for answering this question. The first issue regards the way in which decision-makers' perceptions and beliefs evolve in adaptation. In the present research, decision-makers are treated as a single entity in terms of their cognition. Underlying is the assumption that individuals can and will share their cognition within a collectivity (Bettenhausen and Murnighan, 1985; Bougon, Weick and Binkhorst, 1977). It is the dominant logic (Prahalad and Bettis, 1986) or dominant reality (Gephart, 1984) of the collectivity that provides the basis for coordinated action (Barr and Huff, 1997). A conception of perceptions and beliefs will be developed which is then used to examine how decision-makers' cognition evolves in times of environmental change. The second issue is the way in which shifts in decision-makers' perceptions and beliefs influence the form and functioning of organizations. Key to this issue is the assumption that managers are purposeful in the sense that they wish to secure their cognitions within the very structure and working of their organizations (Ranson, Hinings and Greenwood, 1980). Building on prior research, a multi-level and processual perspective is applied to address this issue. The multi-level perspective is reflected in the investigation of organization-level cognition in addition to decision-makers' cognition. The processual approach is substantiated by the focus on how cognition and action interact, across decision-maker and organizational levels.

Having selected second-order adaptation as the type of alignment process under consideration, dynamics at the deep level of cognition play an important role, in both the issues (cf. MacIntosh and MacLean, 1999). Considering how cognitive dynamics interact with action rather than zooming in on merely the deep *or* the surface level allows for a comprehensive account of second-order change. The cognition-action relation will be conceptualized and used to design the theoretical framework of the study (see Chapter 2). Dealing with the research question, the study should lead to an enhanced understanding of the cognitive bases for responding to environmental change. From a managerial point of view, the study's objective holds the promise of an increased effectiveness of organizational responses to changed environmental conditions (see MacIntosh and MacLean, 1999).

To address the research question, the research pivots on three bodies of literature: strategic choice theory, structuration theory, and cognitive theory (see Figure 1.1).

***Figure 1.1*: Theoretical domain of the adaptation study**



Strategic choice theory "(1) views managerial and strategic choice as the primary link between organization and environment; (2) focuses on management's ability to create, learn about, and manage the organization's environment; and (3) encompasses the multiple ways that organizations respond to environmental conditions" (Miles and Snow, 1978: 263). A strategic choice perspective acknowledges the influence of the external environment but focuses on adaptive responses to the environment that are proactive and opportunistic (Bourgeois, 1984; Judge and Zeithaml, 1992). Because of this stance, strategic choice is consistent with a dynamic perspective on organization-environment relations. It indicates the possibility of continuing adaptive learning cycles in dealing with matters of importance to an organization (Child, 1997; Miles and Snow, 1978). Strategic choice theorists admit of a role for cognition, viewing the environment as information flows which can be observed and interpreted. Strategic choice theory also advocates the interactive connection between cognition and action. Action is considered on the one hand to be bounded by cognitive (as well as material and relational) structures existing within organizations and their environments, and to shape these structures on the other (Child, 1997). In this vein, strategic choice theory supports the softened distinction between action and structure that is characteristic of structuration theory (Giddens, 1984; Ranson, Hinings and Greenwood, 1980), the second theoretical well of this research.

Structuration theorists argue that structures may constrain action in as much as actors rely on prior cognitive framing while they are at the same time the very basis of human power and self-understanding. As Chesley and Huff put it, "actors have at all times the power to act otherwise and change structural properties of systems" (1998: 179), which emphasizes these actors' knowledgeability. They also gain discretion by the selective mobilization of *existing* structural properties (Whittington, 1992). Structuration theory offers a concept of structure that fits the particular purpose of the present study. The concept contains a strong cognitive component and allows for the two basic positions on the role of cognition in adaptation to be covered. Cognition is both considered an enabler and a constraint of action and, thus, of action representing organizational change.

This chapter started out with two quotes of top managers operating in the banking industry. Environmental developments fundamentally changed their beliefs regarding the business. In keeping with strategic choice theory, environmental factors are merely considered triggers for adaptation in the current research. As such, they influence *when* adaptive efforts occur. To understand *how* adaptation takes place, cognitive theory is the third body of knowledge being tapped. In this theory, information-processing dynamics are central in the explanations of organizational behavior. Organization members, managers and employees alike, actively create the reality they inhabit, thereby defining and creating their own opportunities and constraints (Berger and Luckmann, 1966; Weick, 1979). In adaptive efforts, managers can challenge cognitive limits. However, exogenous constraints and path dependencies at times compromise managers' ability to recognize and act on their interests (Roberts and Greenwood, 1997). These assumptions reflect the convergent interaction between enabling and constraining features of cognition and are therefore central to the argument developed here. By subscribing the dual nature of cognition, the present study emphasizes the presence of both voluntaristic and deterministic elements in adaptation.

1.4 Research methodology & setting

To explore the pervasive influence of cognition in adaptation processes, a theoretical framework is developed in Chapter 2. This framework, which is grounded in the theoretical domain, is accompanied by a set of research propositions. The propositions are explored in case studies.

The case study methodology allows for a thorough understanding of complex phenomena (Yin, 1984). Phenomena can be studied over time and in their contexts, an approach which has been strongly advocated in the domain of organizational change (Pettigrew, Woodman and Cameron, 2001). Two key analytical issues when conducting processual and multi-level analysis are (1) which processes to include; and (2) which levels to study. Portraying adaptations as “sequences of individual and collective events, actions, and activities” (Pettigrew et al., 2001: 700), three main types of processes are distinguished in the current research. Firstly, changes in decision-makers’ and organizational cognition are being investigated. Secondly, the focus is on strategic action, which is a fairly comprehensive term referring to actions that are complex and of major significance to the organization. The third type of process is change in organizational action. Organizational action is said to be recurrent and to possess a kind of distinctive quality that makes it reasonable to call it *organizational* (cf. Weick, 1979: 34). With regard to the levels of analysis, the study stretches over the decision-making and organizational level within the firm to include key environmental developments.

The decision was made to reduce the number of sites to enhance comparability, depth and quality of data collected as recommended by Berg and Smith (1988) and Eisenhardt (1989a). At each site, a critical incident in the form of an adaptive effort was chosen (cf. Pettigrew, 1990). The key actors involved in the adaptive efforts were a primary source of information. To counteract retrospective sensemaking biases in the data, documents were used as a complementary information source. A careful selection was made of milestone documents representing key decisions and actions in the trajectories.

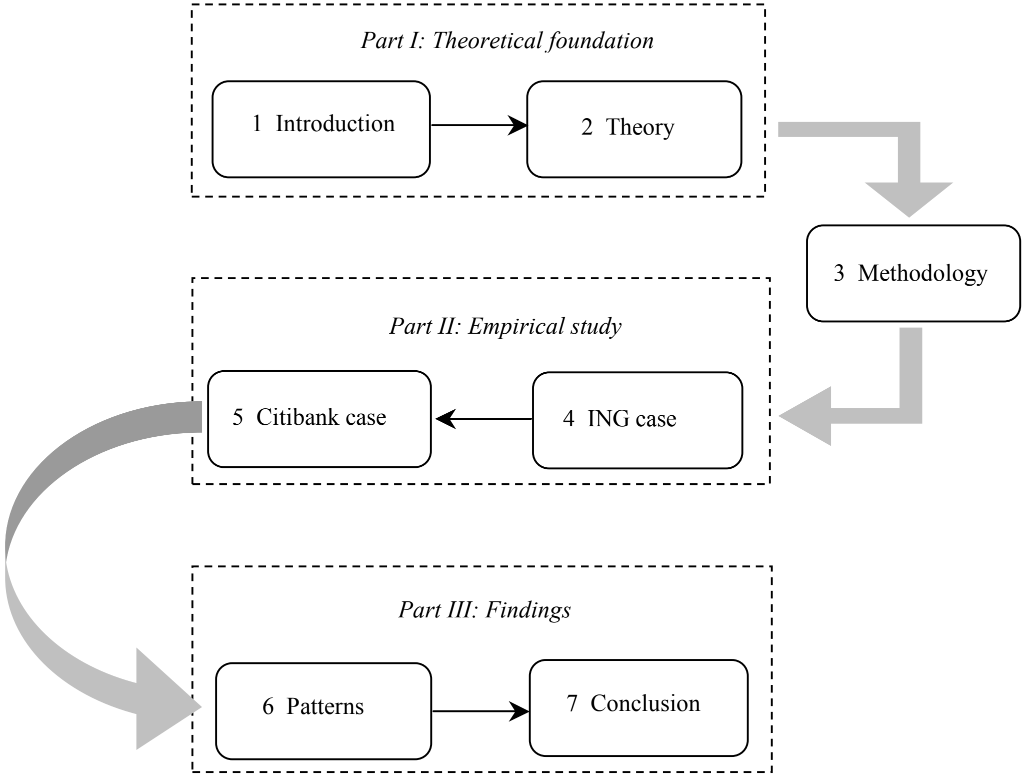
To minimize the impact of confounding effects, the decision was made to study adaptation in a single industry, with firms facing similar events (cf. Barr, 1998). The current research focuses on the banking industry. From the introductory quotes emerged an image of this industry based on fast-paced changes. Several studies support this observation. For example, Flier et al. (2001) report that the European financial services landscape has become increasingly dynamic. The pace of diffusion of technological innovations and regulatory changes are leading indicators in this study. Berger, Kashyap and Scalise (1995) reach a similar conclusion for the U.S. banking industry. Prior to the 1980s, however, banking was a protected and highly regulated industry in most developed countries. Interest rates were fixed and the degree of competition was controlled. However, the passage of a number of acts which varied between national contexts significantly changed the competitive conditions in the industry. Technical and financial innovations have also been a central driving force behind the transformation (Flier et al., 2001). The banking industry has been said to represent "an important and interesting case study in how changes in technology and regulation influence business strategy and organizational architecture" (James and Houston, 1996: 23). The industry is specifically interesting from a cognitive perspective as its transformation from a stable environment to a more dynamic and uncertain business landscape has confronted managers with the need to increase their cognitive adaptability (cf. Bogner and Barr, 2000; Tripsas and Gavetti, 2000).

The Dutch and U.S. banking industries are the focus in the investigation. These contexts provide ample example of adaptive efforts over the past decade. Dutch financial corporations have been at the forefront of rationalization and cost-cutting in continental Europe (White, 1998). Their managers have reduced the number of branches significantly (Flier et al., 2001) and centralized services. The changes that occurred in financial services also triggered managers in most big American banks to change their strategies and structures in a fundamental way (Davis and Mizruchi, 1999). The case material hinges on adaptive efforts that took place within banking units of two financial conglomerates in the mid 1990s. In these specific adaptation processes, divisional executives proclaimed their dedication to new strategies and initiated changes in organizational forms and functioning for its support.

1.5 Structure of the study

Figure 1.2 displays the way in which the book is structured.

Figure 1.2: **Structure of the study**



The second chapter returns to the theoretical debate in which the present research is grounded. The tenets of strategic choice theory and structuration theory are elaborated on and their connection to adaptation is explicated. It is explained why and how a cognitive perspective converges elements of both theories. An overview of relevant literature results in a cognitively anchored framework of adaptation which provides the theoretical foundation for the empirical research. The third chapter then deals in more detail with the methodology employed in the study. Research design, data collection methods, data analysis methods, and research criteria are discussed. Chapter 4 is the first empirical chapter. It provides a tour d'horizon of the financial services sector in the Netherlands and then zooms in on a particular bank to explore how the managers of its home banking division anticipated changed environmental conditions in the mid 1990s. The adaptation process is framed in terms of the interaction between cognition and action over time and across levels. The fifth chapter applies a similar format to investigate an adaptation process around the same time within the corporate banking division of an American conglomerate. In the sixth chapter, patterns in adaptation within and across cases are explored. Three main themes are identified. Each theme comprises one or more patterns. The first theme revolves around changing cognition in times of adaptation. The second one addresses the interaction between structure and action. The third theme then deals with the role of middle managers in adaptation. The thesis concludes with key findings, managerial implications of the study, research limitations, and an agenda for future research in Chapter 7.

CHAPTER 2
A COGNITIVE PERSPECTIVE ON ADAPTATION

This chapter returns to the theoretical domain in which the present research is grounded. The tenets of strategic choice theory and structuration theory are elaborated on and their relation with adaptation is explicated. It is explained why and how a cognitive perspective converges elements of both theories. An overview of relevant literature results in a cognitively anchored framework of adaptation which provides the foundation for the empirical research.

2.1 The fundamental theoretical debate

Adaptation is of fundamental interest to organizational scholars and practitioners. It concerns strategic initiatives aimed at alignment between organization and environment. Business landscapes are dynamic and expose their constituents to a multitude of factors over time, disturbing the delicate organizational fit with the environment. Managers might behave merely reactive, responding to changes in external conditions. They can also be more proactive in their adaptive behavior, anticipating environmental changes or even stimulating external dynamics favourable to their firms. The introductory chapter touched on a primary debate that has unfolded with regard to adaptation. Whether and how managers control the destiny of their companies are key questions underlying this debate. Up to the early 1980s deterministic views and theories of choice represented mutually exclusive explanations of organizational behavior. The former generally assumed that organizations are unable to change significantly. In this orientation, adaptation is pictured as a forced and severely restricted reaction to environmental developments (Hannan and Freeman, 1977; Lawrence and Lorsch, 1967). The latter affirmed the influence of managers by stating that firms are malleable and can realign with evolving circumstances (Ackoff, 1974; Child, 1972). From the early 1980s on several streams of thought emerged occupying middle-of-the-road positions in the debate. Scholars had started to acknowledge the limitations of a binary distinction between determinism and voluntarism and expressed their desire for a more realistic perspective on adaptation. It was argued that organizational adaptation needed to be discussed in terms of the interactions and tensions between determinism and voluntarism (Hrebiniak and Joyce, 1985).

The current study joins the quest for reconciliation of determinism and voluntarism. However, it does not intend to reconcile every aspect of determinism and voluntarism at every level of analysis. The research tries to add value by focusing on a micro level, which means that individual organizations are the basic unit of analysis (Astley and Van den Ven, 1984). Table 2.1 summarizes the stance of leading micro-level organization theories in the determinism-voluntarism discussion. The theories are presented in sequence; from relatively deterministic to largely voluntaristic. This sequence is arbitrary to a certain extent. Depending on the focus of the researcher the position of a theory might vary on the continuum.

***Table 2.1*: Leading micro-level theories & determinism-voluntarism**

Theory	**Main arguments in determinism-voluntarism debate**	**Key references**
Contingency theory	Firms respond to the pressure of contingent factors by modifying or elaborating their structures to retain alignment	Burns & Stalker (1961); Lawrence & Lorsch (1967); Woodward (1965)
Behavioral theory of the firm	Complex decisions are largely an outcome of behavioral factors rather than a mechanical quest for economic optimization. Firms have some degree of control over their environment and they adapt through learning. However, bounded rationality put constraints on search and evaluation.	Cyert & March (1963); March & Simon (1958)
Micro-institutional theory	The prevailing nature of change is one of constant reproduction and affirmation of existing modes of thought and organization. Actions reflect broad institutional scripts rather than autonomous choice and purposefulness	Hinings & Greenwood (1996); Oliver (1991)
Micro-evolutionary theory	Managerial actions are bounded by external constraints as well as by factors arising over organizational history such as initial conditions and organizational routines. Routines are carriers of knowledge and expertise	Nelson & Winter (1982); Barnett & Burgelman (1996)

Theory	**Main arguments in determinism-voluntarism debate**	**Key references**
Resource-based theory	Managers can build sustainable competitive advantages by implementing value-creating strategies wrapped around firms' valuable, rare, and inimitable resources. Causal ambiguity and path dependency condition the sustainability of competitive advantages	Penrose (1959); Wernerfelt (1984)
Learning theory	Organizations adjust on basis of external stimuli. The fundamental learning loop is one in which outcomes of organizational action either match or mismatch expectations, thence confirming or disconfirming the appropriateness of the action.	Argyris & Schön (1978); Levinthal & March; (1993); Levitt & March (1988); March & Olsen (1976)
Coevolutionary view	Organizational adaptations evolve with changes in the environment. Each changes as the other changes. Coevolutionary effects occur at multiple levels *within* firms as well as between firms and their environments.	Lewin & Volberda (1999); McKelvey (1997)
Dynamic capabilities perspective	The ability to build, maintain and renew core competencies lies at the heart of sustained competitive advantage of firms. This ability resides in organizational and strategic routines, e.g. product development routines, strategic decision-making, alliancing	Eisenhardt & Martin (2000); Teece, Pisano & Shuen (1997)
Strategic choice theory	The analysis of the organization-environment relationship must recognize the exercise of choice by organizational decision-makers. The effectiveness of adaptation hinges on the dominant coalition's perceptions of the environment and its decisions about how to cope with changing conditions.	Child (1972)

Theory	Main arguments in determinism-voluntarism debate	Key references
	Contemporary contribution: Managers are capable of generating independent responses to the environment. In adaptation processes, structures allow for purposeful managerial behavior and, in turn, managerial actions sustain and modify structures	Child (1997); Whittington (1988)
Action theory	The environment can be manipulated and changed by decision-makers. Organizations are continuously constructed, sustained, and changed by organization members' definitions	Berger & Luckmann (1967); Silverman (1970); Weick (1979)

Contingency theory, the *behavioral theory of the firm*, and *micro-level institutional theory* are theories characterized by a deterministic orientation. These theories picture organizational behavior as being shaped by a series of constraints on actors. Contingency theory hinges on external constraints (Lawrence and Lorsch, 1967), while behavioral theorists zoom in on constraints residing in actors themselves (March and Simon, 1958). In both schools the manager's role is predominantly a reactive one, in the sense that managers respond to changing environments by rearranging structures to ensure firms' continuity. Micro-level institutional theory emphasizes the constraining effect of industry-level 'templates for organizing' on organizational behavior (Selznick, 1957; Zucker, 1987). To survive, firms must accommodate institutional expectations. The constraining effects are twofold. Preconscious effects refer to the 'taken-for-granted' character of industry templates and are as such lodged in the human mind. Postconscious effects relate to institutional rules as external objective constraints (Greenwood and Hinings, 1996).

From the characterizations of the deterministically oriented theories emerge two basic types of constraints: exogenous and endogenous constraints. Environmental determinists such as contingency theorists rely largely on the former to elucidate adaptation dynamics. In their opinion, objective external factors determine the range of feasible adaptive actions available to decision-makers and attainable outcomes of these actions. The second type, endogenous constraints, appears predominantly in the behavioral theory of the firm. Action determinism, as these constraints have been labeled (Elster, 1984), refers to the action selection mechanisms lodged in actors themselves. Decision-makers choose adaptive actions on basis of the cognitions these actors hold (March and

Simon, 1958). Beliefs and values have often been considered to influence managers' perceptions of organization and environment, and subsequently their decisions and actions (Hambrick and Mason, 1984).

On the determinism-voluntarism continuum, s*trategic choice theory* and *action theory* are key representatives of the voluntaristic perspective. Both streams consider actors to have discretion in defining the situation they are in and, thereby, in choosing courses of action. Managers' actions are viewed as energizing forces shaping the organizational world (Child, 1972; Weick, 1979). Strategic choice theory has traditionally focused on the influence of (top) managers as the key decision-makers in adaptation processes. Environments have been portrayed as stimuli which decision-makers interpret and act on. The interpretive perspective is even stronger emphasized in action theory. Action theorists claim that actors construct their own reality to which they then respond. Rather than to external environments, actors adapt to *enacted* environments (Weick, 1979).

Bringing more subtlety to the debate, several theories support a less stark distinction between constraints and choice. They combine deterministic and voluntaristic dimensions of adaptation in varying compilations. Still quite inclined to the deterministic side are *evolutionary theory* (Nelson and Winter, 1982) and the *resource-based theory of the firm* (Barney, 1991; Teece et al., 1993). Both theories assign priority to the study of organizations as repositories of intangible and tangible resources. Restricting exploration efforts to those in line with existing organizational practices, resources are also believed to endow firms with potential competitive advantages. Evolutionary theory has demonstrated its synthesizing capability by incorporating elements from, for example, learning perspectives (Doz, 1996), organizational ecology (Barnett and Hansen, 1996), and transaction cost economics (Singh and Mitchell, 1996). Emerging as a substream of evolutionary theory, coevolutionary research hinges on interdependencies between managerial action and environmental forces. *Coevolution* has been defined as "the joint outcome of managerial intentionality, environment, and institutional effects" (Lewin and Volberda, 1999). Coevolutionary studies have framed adaptation as firm-specific trajectories of strategic change shaped by and shaping environmental dynamics (Lewin, Long and Carroll, 1999). While coevolutionary theorists have often adopted a macro stance, in the sense that they focus on the mutual relation between organization and environment, some work has appeared which addresses coevolutionary effects within firms (e.g., Dijksterhuis, Van den Bosch and Volberda, 1999). McKelvey (1997) introduced the term microcoevolution to refer to such effects. Resource-based theorizing has also been given a stronger voluntaristic flavour by the introduction of *dynamic capabilities*. These capabilities represent a firm's ability to build, maintain and renew its core competence (Teece et al., 1997). *Learning theory* is another theory that has informed middle-of-the-road accounts of adaptation (Argyris and Schön, 1978; Levitt and March, 1988). Learning sets the stage for change to improve future results. Different types of learning have been identified, reflecting different degrees of change in response to environmental stimuli. Effective learning has been associated with a balance between exploitation of past learnings and exploration of future ones (March, 1991).

Aiming for an integrative perspective on adaptation, the present study holds a middle-of-the-road position. Specifically, it builds on a line of research which has emerged under the banner of strategic choice theory. According to advocates of this substream, many strategic choice studies (1) disregard the enabling effects of managerial and organizational cognition on action and (2) neglect factors beyond actors' experience or understanding (Child, 1997; Whittington, 1988). The resulting view on adaptation has been said to be neither voluntaristic nor complete. The more comprehensive account that has been proposed is reviewed in the next section. Its fit with a structurational notion of structure is described and then presented as the foundation for a cognition-based exploration of adaptation.

2.2 The theoretical domain of the study

In the previous section, it was explored *where* this thesis would try to add value in the determinism-voluntarism debate. In this section, the theoretical foundation of the study is elaborated by a discussion of the *how*-question: How does this thesis aim to contribute to an micro-level, integrative perspective on adaptation? In this vein, three theoretical underpinnings will be discussed separately and in coherence with each other.

Strategic choice theory

The original notion of strategic choice advanced by John Child in 1972 was supposed to redress an imbalance in organization theory caused by the emphasis on contingencies as determinants of organizational elements. It was successful in the sense that it sparked discussions about the role of managers and about the link between managers and the environment among organization scholars. The general idea of decision-makers pursuing specific courses of action as a key explanation for organizational outcomes has gained vast ground. More so than Child's interpretation of strategic choice as mainly a political process. The basic contribution of strategic choice theory lies in its focus on managers as actors formulating responses to environmental change purposefully and opportunistically. This focus entails an emphasis on what is unique to firms rather than what can be generalized.

The reconsideration of strategic choice theory has yielded some promising premises in the light of the present research. First, contemporary contributions have portrayed choice and constraints as two sides of the same coin (Child, 1997). According to strategic choice theorists, both need to be included in the analysis for a deep understanding of adaptive processes. This premise reflects in an extended notion of exogenous and endogenous contextual factors which, rather than mere constraints or enablers, are considered to comprehend *both* effects on organizational action. Furthermore, a notion of managers as actors capable of pursuing unique and independent objectives has been advanced in contemporary accounts of strategic choice (Whittington, 1988). This as a corrective to the notion of managers as being programmed to respond to environmental stimuli in preordained ways, which has prevailed in strategic choice analysis. Secondly, besides the effects of exogenous and endogenous factors on action, action in turn has been said to mould these structures (Child, 1997). In other words, structure and action are mutually related to each other. This premise is in line with the dual notion of structure which is key to structuration theory.

Structuration theory

Originally developed by sociologist Anthony Giddens (1976; 1979), the main goal of structuration theory is to connect action with structure. The key idea is that knowledgeable actors (e.g. managers) draw on structures for their actions while these very actions produce the structures that underlie subsequent actions. In the seminal work on structuration by Giddens, structure is not synonymous with constraint. It is the notion of structure as both an enabler and a constraint in action that gives way to integration of determinism and voluntarism in structuration theory. Structures *constrain* action in as much as actors rely 'mindlessly' on previously developed structural properties and, at the same time, *enable* purposeful action in as much as actors mobilize structural principles in a knowledgeable way. Purposeful action also derives from the power of actors to deviate from and revise structures. The dual nature of structure which traditionally refers specifically to its interactive relation with action can be stretched to include the two-sided effect of structure on action. To explain how the structurational interpretation of structure is used in the current research, it should first be made clear of what such a structure consists. The definition of structure originally proposed by Giddens is the following:

Structure *Rules and resources, recursively implicated in the reproduction of social systems. Structure exists only as memory traces, the organic basis of human knowledgeability, and as instantiated in action (Giddens, 1984: 377).*

In Giddens's work, what is implied by the terms 'rules' and 'resources' remains rather obscure. In this vein, Sewell (1992)'s clarification is gratefully acknowledged and serves as a basis for the explanation of structure applied here. According to Sewell, *rules* in structurational theory refer to "informal and not always conscious schemas, metaphors, or assumptions" (1992: 8). In his opinion, the term 'rule' is confusing as it connotes formally stated prescriptions. Sewell therefore replaces it by the label 'schemas'[4]. Schemas are the memory traces in Giddens's definition of structure. The second component of structure – *resources*- are "anything that can serve as a source of power in social interactions" (Sewell, 1992: 9). They are of two types. Human resources include physical strength, knowledge, and emotional commitment. Nonhuman resources are objects, both animate and inanimate, naturally occurring or manufactured, that might be used to gain or maintain power. Resources provide means for converting schemas into action. For example, for a manager's belief in a strategy to get instantiated in action, authority is likely needed as well as knowledge of how a formal strategy statement can be translated into day-by-day organizational practice. Just as schemas and resources are involved in an interactive relation over time, the structures they make up are both the means and outcomes of social systems which are defined as "empirically observable, intertwining, and relatively bounded social practices that link persons across time and space" (Sewell, 1992: 6).

To what extent can this structurational concept of structure deepen insight into how organizational adaptation takes place? As was already noted, it sets the stage for a comprehensive perspective. Framing structure in terms of both enabling and constraining elements supersedes the sharp distinction between constraints (determinism) and choice (voluntarism). The dual character assigned to the relation between structure and action is the second contribution of structurational theory to a reconciliation. For explaining how social systems evolve, structurational theorists place great weight on the notion that actors are knowledgeable, i.e., they know what they are doing and how to do it. And, "if enough people or even a few people who are powerful enough to act in innovative ways, their action may have the consequence of transforming the very structures that gave them the capacity to act" (Sewell, 1992: 4). In elaborating on how actions may lead to new structures, however, Sewell's most important argument refers to *indirect* change in schemas; he argues that the extension of existing schemas to new contexts may result in a modification of these schemas (1992: 18). All other arguments in favour of agency (i.e. the ability of actors to formulate unique and independent objectives and pursuing them both purposefully and effectively –Whittington, 1988: 522) involve making use of the variety in structures rather than deliberately changing those structures.

Two other critiques are addressed here as well. First, the emphasis on knowledgeability has concealed the influence of endogenous constraints. Bounded rationality, multiple and conflicting goals, and varying aspiration levels limit the knowledgeability of actors (March and Simon, 1958). As is argued in this thesis, a comprehensive account of adaptation should explicate the effect of endogenous constraints. The second critique concerns the scant consideration of exogenous constraints.

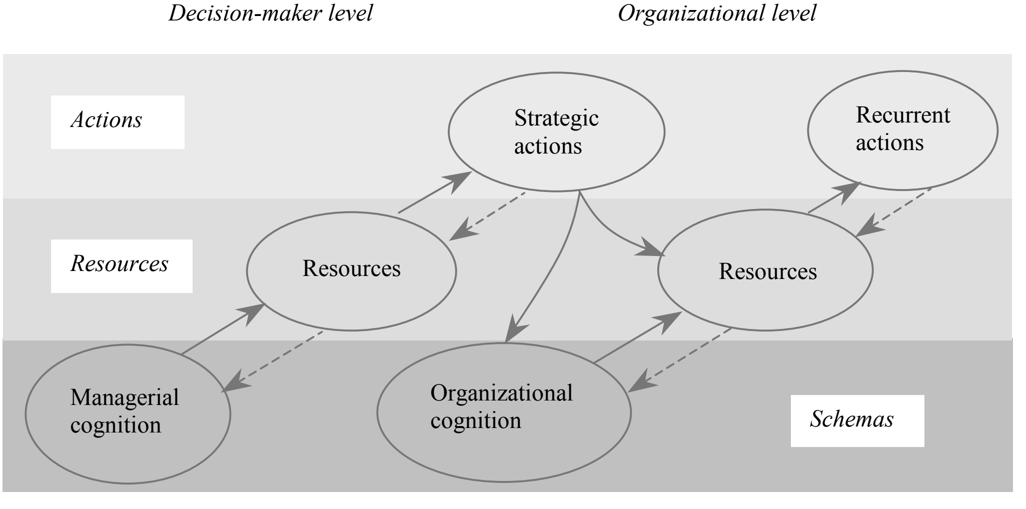
---

[4] A widely used definition of schema derives from cognitive theory: "[A schema is] a cognitive structure that represents organized knowledge about a given concept or type of stimulus" (Fiske and Taylor, 1984: 140)

Insisting on actors' ability to choose actions deliberately, structurational theorists tend to dismiss the impact of environmental and organizational factors limiting the range of feasible strategic actions. Although exogenous factors are expected to affect organizational *outcomes* and, thence, the results of adaptive efforts, they have only been assigned a supporting role in the present exploration of adaptation processes. Endogenous constraints do get incorporated more explicitly as they underlie the very existence of schemas (i.e. cognitive structures) (Hambrick and Mason, 1984).

Logically inclined to powerholders as unit of analysis, structuration theory is very appropriate for the study of decision-makers' structures. By definition, decision-makers have the means to formulate new rules (i.e. formally stated prescriptions), to name a preeminent strategic action[5]. However, for a change in the actual functioning of an organization, new rules need to be practised organization-wide. In terms of structuration theory, the new rules are organization-level resources which may or may not be used to put the schemas they embody into action. To go beyond an understanding of how new rules are proclaimed in organizations to get a grasp of real change in organizational behavior, cognitive structures at the organizational level are included in the analysis (cf. Gioia and Chittipeddi, 1991). Figure 2.1 shows the conceptualization of adaptation built on structurational tenets, as an important step toward a theoretical framework of adaptation.

Figure 2.1: **Adaptation conceptualized from a structurational perspective**



[5] The term 'strategic' is used to signify matters of importance to an organization (unit) as a whole, particularly those bearing on the ability to be successful in its environment (cf. Child, 1997).

Scholars applying a structurational perspective to organizational matters have been criticized for their tendency to reduce structures to the internal characteristics of organizations (Whittington, 1992). Strategic choice theory adds value in this respect. In keeping with this theory, the current study underlines the pervasiveness of organization and environment. Two factors will be considered in this respect. Organization members' perceptions of the environment that are consequential for action amalgamate organization and environment. This is also done by the relationships of organization members across a firm's boundaries (Child, 1997) but in a different way. Being involved in (1) cross-boundary relations deriving from membership of the particular organization; and (2) other social systems (e.g. unions, voluntary organizations, family), organization members are exposed to external structures. The intersection of structures is included in the study to the extent in which it feeds back into dominant cognitive structures at the decision-making and organizational level. In other words, the focus is on structures *within* firms which are acknowledged to be the result of processes permeating organizational boundaries.

Cognitive theory

The discussion shows a good fit between the theories of strategic choice and structuration in issues that are relevant to a characterization of organizational adaptation. At the same time, however, joining these theories together still leaves some gaps. A few critical ones are dealt with by bringing a third theory to the stage: cognitive theory. As is clear from the discussion, cognition is an integral part of both strategic choice and structuration analyses. To fulfill the promise of a comprehensive account of adaptation inherent in these theories, it is suggested here that their cognitive focus needs to be extended in three key areas. The first extension has already been discussed for structuration theory. The lopsided view on cognition of decision-makers in adaptation research should be supplemented with a consideration of organizational cognition, i.e. the cognition of organization members throughout the organization. Besides for a deliberation on organizational cognition, the two theories also provide little hold for an understanding of change in cognition. In cognitive studies, successful adaptation has often been associated with cognitive change rather than stability (Barr et al., 1992; Labianca et al., 2000; Walsh, 1995). This body of knowledge will be tapped to build a dynamic conception of cognition. The third extension regards a more explicit consideration of endogenous factors limiting the knowledgeability of actors. As noted, a major criticism of strategic choice theory has been its negiglent attitude toward action determinism (Whittington, 1988). Structuration theory has the potential to provide a balanced approach to choice and constraints. Also indicated above, more attention should be given to endogenous constraints to get to this approach. Cognitive theory hinges on the constraining effects of cognitive structures and is thus considered a missing link.

The idea that managers can act knowledgeably to achieve their goals sets on the essential foundations for strategic management (Ansoff, 1965; Schendel and Hofer, 1979) and provides a theoretical linkage to cognitive science (Stubbart and Ramaprasad, 1990). Research on the role of cognition in organizations has burgeoned in recent years (Schneider and Angelmar, 1993; Walsh, 1995). In the first chapter it was explained that in the present study a distinctive role is assigned to the cognitions of decision-makers and of 'the organization' as a whole. To understand the pervasive influence of the cognitive structures at both levels on second-order adaptation processes, the research taps from two strands of literature: managerial and organizational cognition. A brief review of these literatures will clarify how they contribute to the cognitive perspective developed in this thesis and, also, how this thesis will contribute to the existing literatures.

Managerial cognition

The managerial cognition perspective which has emerged in the strategic management domain focuses on managers as 'information workers' (McCall and Kaplan, 1985: 14). That is, "they spend their time absorbing, processing, and disseminating information about issues, opportunities, and problems" (Walsh, 1995: 280). Because the human information processing apparatus is *bounded* (Simon, 1958), managers are said to develop cognitive structures. These structures serve sensemaking; they create order in the cacophony of information inputs. The resulting observations and interpretations are enactments of cognitive structures (or schemas, in structurational terms). These observations and interpretations may, in turn, get enacted through behavior (Weick, 1979). A significant volume of work has developed around the role of managerial cognition in organizational adaptation (see Appendix A for an overview of leading studies). As Isabella argues: "[T]he views of managers as a collective are especially salient because managers appear to be at the heart of the cognitive shifts that occur during organizational change" (1990: 9). When considering managerial cognition studies, the lopsided focus on decision-makers' cognition reveals itself quickly. Many studies are addressing the mediating role of top-level managers in the relation between organization and environment (Barr et al., 1992; Bettis and Prahalad, 1995; Fahey and Narayanan, 1989; Ford and Baucus, 1987; Lant, Milliken and Batra, 1992; MacIntosh and MacLean, 1999; Meyer, 1982; Siggelkow, 2001; Tripsas and Gavetti, 2000).

The present study builds on a number of insights from managerial cognition work to get an understanding of cognitive dynamics at the decision-maker level, i.e. at the level of the individual(s) who have the authority to initiate strategic actions. The first insight concerns the influence of decision-makers' observations and interpretations, also called *perceptions* (Starbuck and Milliken, 1988). Decision-makers' perceptions as explanation for organizational outcomes has gained substantial support over the years. Perceptions of general environmental characteristics such as uncertainty (e.g., Anderson and Paine, 1975) and of specific environmental issues or events (e.g., Dutton and Jackson, 1987; Thomas and McDaniel, 1990) are the types of perception most often investigated. Several studies bear witness to a relation between executives' perceptions of environmental issues and the likelihood of strategic action (Barr and Huff, 1997; Lant et al., 1992; Thomas et al., 1993). Also, the *type* of action has been related to the way in which decision-makers perceive organization and environment (Bartunek, 1984; Dutton and Jackson, 1987).

A second insight deals with cognitive structures which were said to invigorate information processing. Different dimensions of decision-makers' cognitive structures (*schemas*) have been explored in organizational adaptation research. For example, cognitive categorizations have shown to affect observation and interpretation and thereby decision-makers' actions (Dutton and Jackson, 1987; Thomas et al., 1993). Scholars have also probed into the impact of cause-effect beliefs on information processing and adaptation. Cause-effect beliefs generally relate to "the efficacy of various business tactics in achieving organizational effectiveness" (Chattopadhyay et al., 1999: 765). In this research domain, a primary set of studies have emerged around how decision-makers' conceptualization of the business(es) they operate in (*cause*) relates to their conceptualization of what the organization should look like (*effect*). In the strategic management field, Bettis and Prahalad have done seminal work on this theme. Exhibit 2.1 summarizes their concept of dominant logic which is defined as "the way in which managers conceptualize the business and make critical resource allocations decisions" (1986: 490).

***Exhibit 2.1*: The dominant logic concept of Bettis and Prahalad**

The dominant logic

Bettis and Prahalad (1995) argue that dominant logic is a fundamental aspect of organizations' intelligence to appropriately interpret and act on the huge amounts of information available to them. This logic held by the dominant coalition of a firm acts as an information filter that shapes observations and interpretations. As it is determined by previous experiences, the dominant logic is considered to put constraints on the ability of organizations to learn new things. The adaptive ability it entails lasts so long as the conceptualization of the environment is appropriate. However, if this is no longer the case, the dominant logic should be changed. Bettis and Prahalad subscribe the problems many firms have when it comes to change to dominant logic. The conceptualization of the business(es) and how this influences resource allocations decisions go largely unrecognized by decision-makers. This is why often substantial crises are needed for decision-makers to start unlearning an existing logic and developing a new one. Figure 2.2 visualizes Bettis and Prahalad's notion of strategic change.

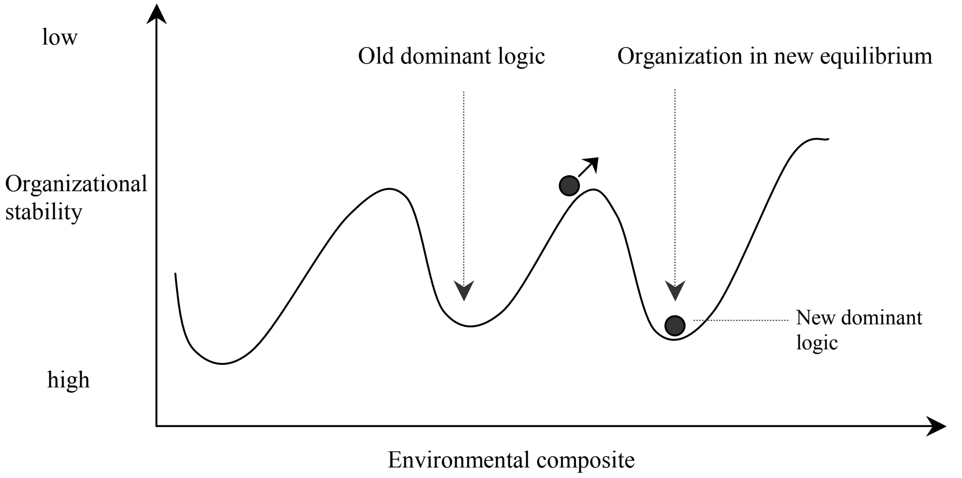


***Figure 2.2*: The development of a new dominant logic**

Adopted from Bettis and Prahalad (1995)

The concept of dominant logic is strongly related to the present research. This thesis adopts its key premise that decision-makers' beliefs concerning the *nature of the business* and *how to succeed in it* influence perceptions and subsequently strategic actions. Such beliefs will be referred to here as 'business beliefs', as they represent the core assumptions regarding the business in which an organization (unit) operates. Business beliefs are the focus of attention in the current research rather than dominant logic to allow for a clear distinction between thinking and acting. Resource allocation decisions, which are part of Prahalad and Bettis (1986)'s notion of dominant logic, are considered in the present study only to the extent that they are manifested in strategic actions. This entails a clear distinction between thinking and acting, thereby decreasing the chance of confounding effects. This study deviates from the work of Prahalad and Bettis (1986; 1995) in yet another way. In the discussions of dominant logic, how beliefs translate into organizational outcomes remains a black box. Recognizing the need for knowledge building (cf. Lyles and Schwenk, 1992; Meindl, Stubbart and Porac, 1994), the focus has been set on this relation.

There is yet to emerge clarity about the distinctive roles of decision-makers' perceptions and business beliefs in adaptation processes. As is suggested here, the inconsistent use of these terms has been an important barrier to knowledge accumulation. To give an example, the term 'beliefs' in some studies is used in reference to representations of specific information environments (Barr, 1998) while in others they are considered to be an intimate aspect of generic cognitive structures (Prahalad and Bettis, 1986). The failure to distinguish clearly between cognition essentially bound up in time/place (*perceptions*) and cognition crossing time/place (*business beliefs*) is considered a missed opportunity for a more thorough understanding of cognition in organizational processes. The structurational notion of structure, which has proven valuable before (see section 2.2) can be used to explicate the difference between both cognitive constructs. Business beliefs are closely linked to the concept of schema. Actors are often not conscious of the beliefs they hold regarding their business. Beliefs are part of the deep cognitive structures which enable and constrain decision-makers' decisions and actions. The time- and place-specific perceptions are, by definition, excluded from the structurational concept of structure which is characterized by generalizability.

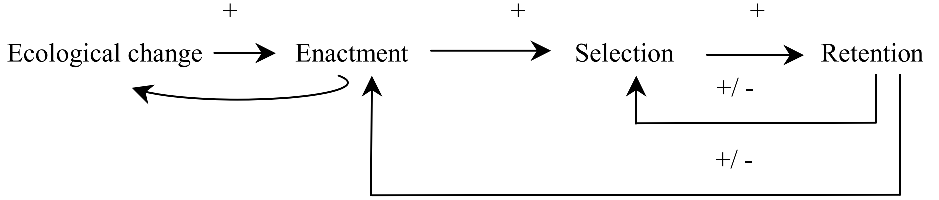
As is suggested here, perceptions are a critical lever in the relation between structure and action. For as much as decision-makers rely on existing business beliefs, their perceptions will trigger actions that are consistent with these beliefs. In this case, business beliefs are both the medium and outcome of perceptions and, subsequently, actions. If decision-makers apply a more 'open mind', and put aside their learnings from the past, perceptions become potential levers for change, both in actions and structures. The two roles of perception are in line with discussions about belief-driven versus action-led adaptation (Gavetti and Levinthal, 2000; Walsh, 1995). Theoretically speaking, the former approach to adaptation "may be a dominant response in all but the most novel situations" (Walsh, 1995: 281). However, in practice, all too often decision-makers also rely on existing beliefs in unfamiliar settings (Mezias et al., 2001). The consequential failure to adapt has received much attention in organization literature (Barr et al., 1992; Huff, Huff and Thomas, 1992; Tripsas and Gavetti, 2000). Adhering to an action-led approach to adaptation, some scholars have postulated that new strategies and structures emerge essentially from action (Bowman, 1999). Their studies revolve around trial-and-error change processes and retrospective sensemaking. Rather than choosing between sides, the current research incorporates both approaches, i.e. both roles of perceptions. This allows for the revelation of effects of cognitive stability and cognitive change on adaptation. With respect to the distinction between perceptions and beliefs and the dual role of cognition in adaptation, Weick (1979)'s model of organizing deserves mentioning. Exhibit 2.2 contains a description of the key features of this model.

***Exhibit 2.2*: The Enactment-Selection-Retention model of Weick**

The Enactment-Selection-Retention model

Weick (1979) argues that organizing, which he defines as assembling "ongoing interdependent actions into sensible sequences that generate sensible outcomes" (1979: 3), comprises four elements. Ecological change –change in the flows of experience that engage people- provides the raw material for sensemaking. The second component, enactment, represents the direct engagement of an actor with its external environment. Information processing constraints lead actors to notice only a certain number of changes. Enactment also refers to the influence actors have on their external environment which then feeds back to them as changed flows of experience. Thirdly, selection involves the imposition of cognitive structures on observations in order to make sense of them. In the Enactment-Selection-Retention model (Figure 2.3), it is the selection of cognitive structures and specific interpretation rather than the selection of individuals or behaviors that is key. Finally, retention concerns the storage of successful sensemaking. According to Weick, selection is crucial in organizing processes as it is the means for balancing between old and new beliefs and between perceptions driven by existing beliefs or by the information environment.

***Figure 2.3*: Enactment-Selection-Retention model**



Source: Weick (1979: 132)

Weick's distinction between schemes of representation and specific representations reflects the difference between beliefs and perceptions. He considers selection to be a critical activity as it "is the means for attempting to accommodate the antithetical pressures generated by that which produces adaptation and that which produces adaptability" (1979: 136). In other words, selection is the act of balancing existing and new beliefs, and of balancing perceptions deriving from both. The current research adopts this stance but adds an element as well. The balancing act is considered to also apply to enactment. Thus, observation is subject to beliefs just as interpretation is. Their beliefs might cause managers to ignore counterintuitive developments or events. Rather than in enactment, adaptability is therefore suggested to reside in the ability of actors to leverage ecological change through observation ánd interpretation. An open mind, which implies a high sensitivity for a broad range of ecological changes, is key to such leverage and, therefore, to adaptability. In line with Weick (1979), adaptation is considered to be a time- and place-specific response to ecological change which exposes actors to the risk of rigidity when the underlying beliefs become engraved in people's minds. Such retention developments lower sensitivity for environmental dynamics, which is likely to result in disalignment and performance downturn.

Table 2.2 sums up the key differences between perceptions and beliefs brought forward in the present study and grounded in previous research.

***Table 2.2*: Key features of perceptions and business beliefs**

Perceptions	**Business beliefs**
Directly reflects experience; based on *current* information environments; bound up in time/place	Determined by experience, building up over time; based on *past* information environments; crossing time/place
Exist at a more superficial level –being more easily discussed among actors	Exist at a deep level–being often implicit and taken-for-granted
Trigger or hamper adaptation; spurring cognitive change or cognitive stability	Enable and constrain perceptions & actions

Organizational cognition

In contrast to managerial cognition, the topic of organizational cognition is still in its infancy (see Appendix B for an overview of leading studies). Only quite recently, discussions have cropped up about "what is organizational about cognition and what is cognitive about organizations" (Schneider and Angelmar, 1993: 348). These discussions are driven by the desire to advance inquiry into the role of cognition in organizations. A key argument brought forward by several theorists is that organizational cognition should be perceived as more than the aggregation of individual cognitions (Schneider and Angelmar, 1993; Walsh, 1995). In this vein, the effects of social processes on cognition have started to attract attention. In Labianca et al. (2000)'s study, continual confirmation of proposed new schemas through enacted behavior by management and employees was essential to a change in organizational cognition. Bate et al. (2000) focus on the role of leadership as a social process in intentional change of design and underlying meanings. According to these authors, "leadership is a quality that is spread across the organization rather than simply being concentrated at the top" (2000: 199). Adaptation involves lead roles across the organization, "active leadership at every level" (Bate et al., 2000: 199). In line with this conception, and in response to a call for the study of cross-level cognitive dynamics (Schneider and Angelmar, 1993), this thesis includes cognition at decision-maker as well as organizational level in the analysis of adaptation. For organizational cognition, the focus is on business beliefs that possess the distinctive quality that makes it reasonable to consider them the basis for concerted organizational action. At the decision-maker level, business beliefs are considered in conjunction with perceptions as their interrelation is expected to be critical for change in beliefs. In second-order adaptive efforts, the perceptions of decision-makers have been said to be primary triggers for change (Barr et al., 1992; Dijksterhuis et al., 1999; Hambrick and Mason, 1987). Their business beliefs are likely to color these perceptions but might as well be changed through perceptions. A common belief structure from which organization members beyond decision-making level can draw lies at the heart of the basic function of business beliefs: to maintain a system of cooperative effort (Bartunek, 1984). Leadership reflects in successful attempts to frame and define the reality of others (Smircich and Morgan, 1982). For top managers initiating adaptation this would mean trying to re-frame the reality of lower-level organization members. The outcomes of adaptation in terms of recurrent actions at the organizational level are assumed to depend heavily on these members' commitment to decision-makers' business beliefs.

Table 2.3 summarizes the convergent arguments and divergent foci of strategic choice theory, structuration theory, and cognitive theory.

***Table 2.3*: The theoretical domain of the study**

Issue	***Convergent assumptions***		***Divergent foci***	
		Strategic choice theory *Child (1972, 1997); Hambrick & Mason (1984); Whittington (1988)*	**Structuration theory** *Ranson et al. (1980) Giddens (1976, 1979); Sewell (1992)*	**Cognitive theory** *Barr et al. (1992); Bartunek (1984); Daft & Weick (1984); Walsh (1995)*
Nature of environment	Environments are the contexts for organizational action; it both constrains and enables action	Set of pressures on firms, both objectively and subjectively present	Essentially, a set of structural properties to be mobilized. A more passive environment (i.e. set of pressures) is portrayed in some organizational accounts	Set of information flows –either subjective or enacted
Nature of organizational actors	Actors are purposeful and – if having the means at their disposal- capable of taking action	Actors have leeway in shaping their own fates; focus on individuals & groups within firms; managerial cognition as key constraint on strategic choice	Actors are knowledgeable and ‘enabled’	Actors are intentional in their behavior; they are ‘knowledge workers’: they generally observe and interpret before they act

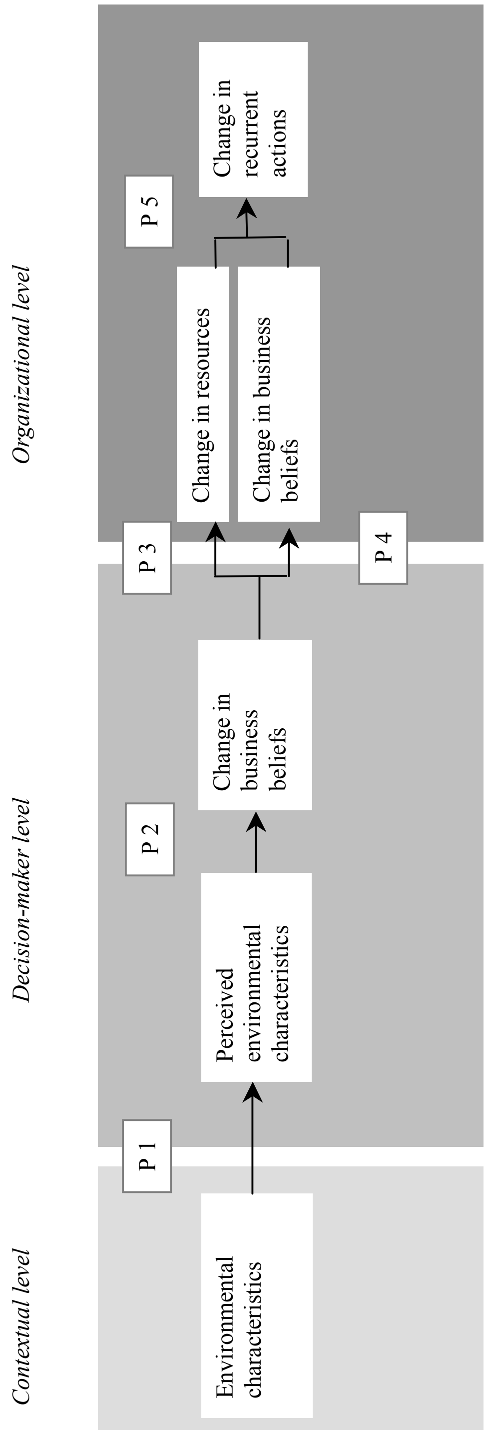
Issue	***Convergent assumptions***		***Divergent foci***	
Nature of relation between environment and organizational actors	Relation is essentially an interactive one	Strategic choice as primary link	Structure-action duality as primary focus	The way in which issues are perceived is critical for the type of response; both managers & employees are involved
Nature of adaptation	Renewal process by which powerholders respond to environmental developments	Focus on actions members take to adapt to an environment as explanation for outcomes	Giving equal attention to the embedded structures drawn upon in action and action itself is essential	A need for adaptation reflects in a misfit between the information environment and actors' cognitive structures

Drawing from the theoretical domain, a study is proposed of adaptation as interactions between cognition and action over time (*processual*) and across levels (*multi-level*) in changing environments. In line with the macrocoevolutionary viewpoint, influences of organizations on their environments (i.e. organizational changes are a source of environmental dynamics) are acknowledged. However, this thesis focuses mainly on how adaptation processes emerge and evolve *within* organizations, and is as such associated with a microcoevolutionary perspective. Cognition has shown to be a common thread in strategic choice and structuration theory. The former conceives of action "being informed by the prior cognitive 'framing' of actors and of organizations in the form of embedded routines and cultures (Bartunek, 1988)" (Child, 1997: 60). The latter relies in its argumentation on the ability of actors to draw on their cognitive structures purposefully and effectively. Cognitive theory has appeared promising for extending and refining strategic choice and structuration's joint contribution to adaptation research.

2.3 An integrative framework of adaptation

Now that has been explored what it could mean to combine the managerial discretion stance of strategic choice theory, the structure-action duality of structuration theory, and managerial and organizational cognition principles in the study of adaptation, the insights are translated into an integrative framework (see Figure 2.4). The framework fuses these building blocks to create a processual and multi-level cognition-based perspective on adaptation.

***Figure 2.4:* An integrative framework of adaptation**



Environmental characteristics

This variable covers a broad range of events and developments in the business environment of the organization (unit) going through the adaptation process. Events are discrete happenings; their beginning and ending can be indicated relatively easy. Developments refer to longer lasting, gradual changes in a particular factor or set of factors. Environmental characteristics have been included in many organizational adaptation studies as triggers for change in strategy and structure. Scholars have pointed out the link between environmental characteristics and *perceived* environmental characteristics as an issue of interest when trying to understand how and why managers make certain strategic decisions (e.g., Yasai-Ardekani, 1986). In this vein, a first research proposition to be explored within the current study is the following:

P1 Environmental change triggers a change in perceived environmental characteristics at the decision-maker level

Perceived environmental characteristics

To ensure a continuous alignment between their organization and the environment, decision-makers need to keep track of the things that are going on and make sense of them. Perceptions were defined as observations and interpretations. Building on previous research, decision-makers' perceptions are conceived of as triggers for change in both business beliefs. For decision-makers to break with their fundamental beliefs about the nature of their business, it is expected that they need to develop new perceptions. This expectation is reflected in a second research proposition:

P2 A change in perceived environmental characteristics triggers a change in business beliefs at the decision-maker level

Change in decision-makers' business beliefs

The framework incorporates a change in decision-makers' business beliefs as part of top-down, second-order adaptation processes. It is suggested that a change in decision-makers' business beliefs is needed for decision-makers to aim at fundamental organizational changes. Changes in two types of organizational elements are acknowledged, building on a structurational conception of adaptation: change in resources and change in organizational cognition.

Change in resources

Resources are the means necessary to undertake action. Prime examples are formal rules which reflect the normative system of roles and responsibilities (cf. Scott, 1981: 82) and formal systems such as performance evaluation and reward systems. Know-how which for example refers to “knowledge of the means of gaining, retaining, controlling, and propagating either human or nonhuman resources” (Sewell, 1992: 9) is another type of resource. In the light of the integrative framework, the relation between decision-makers’ business beliefs and organizational level resources will be explored in the present study:

P3 A change in decision-makers’ business beliefs triggers a change in resources at the organizational level

Change in organizational business beliefs

Organization members interpret decision-makers’ strategic actions through their existing mental models. Successful implementation of the changes requires a fundamental change in the set of organization members’ beliefs about the way things are done in the organization (unit). A key proposition of the current study is that organization members beyond the top management level will need to adopt the new business beliefs to achieve a fundamental change in organizational behavior. This will show in top managers’ efforts to achieve a change in organization-level business beliefs:

P4 A change in decision-makers’ beliefs triggers a change in business beliefs at the organizational level

Change in recurrent actions

Actions throughout the organization that are repeated over time constitute an important part of organizational behavior. Only when these actions undergo significant change, the actual functioning of the firm alters which is the outcome of adaptation that is focused on in this thesis. As is suggested, changes in both resources and business beliefs at the organizational level will result in a change in recurrent action:

P5 A change in resources and business beliefs leads to a change in recurrent actions at the organizational level

In the first chapter, the pervasive influence of cognition in adaptation was introduced as the focus of the current research. The overall research question pertaining to this focus was: *How are cognition and adaptation related?* Knowledge of (1) the way in which decision-makers’ cognition evolves in adaptation and (2) the way in which shifts in decision-makers’ cognition influence the form and functioning of organizations was expected to deepen understanding of the role of cognition in adaptation. The framework allows for the exploration of the research question and issues by focusing attention on a number of variables and the relations between them. Before exploring these propositions, the next chapter discusses the research design which was developed to translate the theoretical framework into an empirical study.

CHAPTER 3
METHODOLOGY

This chapter clarifies the research methodology which guides the inquiries. The processual and multi-level approach used in the present research sets the stage for a dynamic and holistic analysis of adaptation (Pettigrew, 1997). The first section of this chapter offers a general description of the research design. The next three sections respectively deal with how case data were selected, collected, and analyzed. Section 3.5 provides a brief conclusion of the chapter.

3.1 Research design

In line with an increasing number of adaptation studies, this research adopts the stance that a study of change benefits from a processual perspective. What happens today is anchored in yesterday's events and conditions, and both history and present time inform tomorrow's issues (Pettigrew, 1990). A good grasp of the challenges inherent in adaptation necessitates insight into the way in which past ideas, decisions, and actions feed into present and future change processes. In addition, multi-level analysis is part of the theory of method used in this thesis. Involving a response to environmental change, adaptation entails the inclusion of circumstances at business landscape and institutional levels. Considering adaptation in terms of evolving decision-makers' and organizational cognition implies the incorporation of at least these levels of analysis within the firm. Two analytical choices precede processual and multi-level analysis: (1) which phenomena to include, and (2) which levels to consider (Pettigrew et al., 2001). These choices are elaborated on in the data selection section.

A processual and multi-level approach sets the stage for the study of cognition in conjunction with action, which is in correspondence with the premises of the theoretical underpinnings of the research. The case method suits well to the study of processes as they unfold over time and across levels and allows for 'controlled opportunism' to respond flexibly to discoveries made (Eisenhardt, 1989a: 539). Moreover, case studies can employ an embedded design which involves a multi-level approach for a single study (Yin, 1984). Case studies are used here to probe the dynamics of cognition in adaptation. To interpretive research, the case strategy offers at least three advantages. First of all, case study inquiry relies on multiple data sources (Yin, 1984). Being able to deal with a full variety of evidence is especially important when studying unobservable variables such as beliefs and perceptions. The combination of various sources in the study of the same phenomenon, also called 'triangulation' (Denzin, 1978), applied to qualitative methods such as case studies illuminates the sensitivity of variables to contextual factors in their operation. Thus, case studies potentially generate holistic descriptions of complex phenomena (Jick, 1979) which is aimed for in the study at hand. As Weiss concludes, "[Q]ualitative data are apt to be superior to quantitative data in density of information, vividness, and clarity of meaning –characteristics more important in holistic work, than precision and reproducibility" (1968: 344-345). In line with the first advantage, the second concerns the ability of case researchers to handle an extensive pool of eclectic data including events, variables, interpretations, and interactions. Academics have explicitly recognized the value of case study research for grasping the meaning of managerial and organizational cognition. For example, Weick (1979) emphasizes the need for detailed case studies of the ways in which single thoughts become diffused through organizations. A third reason for conducting case studies is their ability to provide insight in dynamics over lengthy periods of time. It has been argued in organization literature that investigations of second-order organizational change should cover three consecutive years at the least (Greenwood and Hinings, 1996).

3.2 Data selection

In the previous chapter, a framework was presented which was grounded in existing work. Because the purpose of this thesis is to bring insight into adaptation dynamics from a relatively new perspective (*multi-level cognitive view*), the uniqueness of case studies is exploited by adding emerging patterns to the original theoretical foundation. While the development of theoretical ideas based on previous studies is indicative of deductive research, the cases in the present study thus add an inductive approach. Mixing a theory- and a data-inspired approach has been said to be fruitful as creative insight can be gained from the data without denying or reinventing concepts that have proven useful in previous studies (Denis, Lamothe and Langley, 2001). The primary goal of theory is to answer questions of *how*, *when*, and *why,* rather then investigating *what* which is the goal of descriptive research (Bacharach, 1989). How, when, and why decision-makers' and organization-level cognition and adaptation are related is key to the explorative efforts in this research. As a result, both the research questions and the model were considered tentative. A priori specification of constructs and relations between them led to the creation of the initial theoretical framework. However, special care was taken not to exclude serendipitous findings from the analysis. At a number of instances, the initial research questions and the framework were modified in accordance to such findings.

Selection of empirical setting I: Industry & nations

Searching for conditions under which decision-makers' and organization-level cognition are expected to matter to firms' adaptive behavior, the financial services sector was selected as the context for study[6]. In recent years, this sector has become more dynamic and complex as a variety of factors have led to fundamental changes in its competitive and regulatory structure (Dutton and Jackson, 1987; Haveman, 1992; Schneider and Angelmar, 1993; Vermeulen, 2002). In response to the upset of balance, major changes have taken place in the behavior of member organizations. Unleashed by deregulation, boundaries between industries within the financial services sector have opened up which has resulted in a trend toward mergers and acquisitions involving banks and non-bank providers of financial services, in particular insurance companies (Flier et al., 2001; White, 1998). The changed regulatory structure has allowed firms to escape the threat of extinction by diversifying their product portfolio and changing their domains. At the same time, new competitive conditions within and across financial industries have forced managers to revise their perceptions and beliefs (Schneider and Angelmar, 1993). Based on these considerations, the financial services sector is believed to offer a good forum for studying the role of cognition in organizational adaptation.

Choosing a single sector allows for control of contextual variation (Dijksterhuis et al., 1999; Eisenhardt, 1989a). To further reduce confounding effects, the Netherlands and the United States were selected as the national contexts under consideration. As was noticed in the introductory chapter, over the last decade decision-makers of many Dutch and U.S. banking corporations have initiated adaptive efforts. Dutch banks were said to be at the forefront of renewal in continental Europe (Flier et al., 2001). U.S. financial services providers were also considered to be prime examples of how changed conditions in the banking industry affected the forms and functioning of its member organizations.

Selection of empirical setting II: Firms, business units & adaptations

Researchers are equally confronted with cognitive constraints as managers. Hence, observing more firms means observing fewer characteristics of each of them or obtaining fewer consecutive observations of variables. The decision was made to reduce the number of sites to enhance depth and quality of data (see also Fox-Wolfgramm, Boal and Hunt, 1998). Aiming for in-depth understanding of real organizational behavior, a small-sample study exploring firm idiosyncracies is preferred over a large-sample study which seems more suited to reveal the 'anatomy of conformity'. The complexity and dynamic nature of the study reinforces the decision for comparatively few research sites (Starbuck, 1976).

To constrain variation due to size differences (Eisenhardt, 1989a), the focus is on large firms. Research has indicated the tendency of large organizations to focus inward on the efficiency of their operations, thereby hampering innovation (Dougherty, 1996). Moreover, it has been stated that as firms get larger, organizational and environmental forces become more difficult to distinguish, which leaves managers struggling with the convergence of tensions that are only partly structured by firm boundaries (Denis et al., 2001). Large firms thus pose special challenges to both researchers and managers. Two financial corporations were ultimately chosen. ING and Citigroup are among the biggest financial services providers in the world, the first originating from the Netherlands and the second from the U.S. Table 3.1 displays some key data for the case companies. Not only were these companies chosen for their size, they were also selected on basis of their innovativeness relative to competitor firms. In their study of strategic renewal processes in leading Dutch and U.K. financial services firms, Volberda et al. (2001) find that ING has a significantly higher than average exploration/exploitation ratio. In other words, ING executives were much more aimed toward renewal actions adding new activities to the firm's repertoir or increasing the geographic scope than their competitors. Similarly, Citigroup has frequently been praised for its innovative capability (Baron and Besanko, 2001; Charan and Tichy, 1998; Malnight, 1996). Innovation is generally associated with frame-breaking change. In this vein, innovators are expected to provide an interesting sample for studying shifts in decision-makers' and organizational cognition in second-order adaptation processes.

Table 3.1: **Case companies**

ING	Revenues: 82,999.1 $ mil. Profit: 4,098.7 $ mil. Assets: 627,816.0 $ mil. Equity: 19,155.4 $ mil. Employees: 113,143	Global ranking: 20
Citigroup	Revenues: 112,022 $ mil. Profit: 14,126 $ mil. Assets: 1,051,450 $ mil. Equity: 81,247 $ mil. Employees: 268,000	Global ranking: 11

Source: Fortune, 22 July 2002

[6] The financial services sector is considered to include the following industries: banking, savings and loan, insurance, brokerage, and credit unions (see also Haveman, 1992: 54).

Deliberately creating a category from which to choose the final cases is indicative of theoretical sampling. The goal of theoretical sampling is to select cases which are likely to replicate or extend the theoretical ideas underlying empirical work (Eisenhardt, 1989a). As mentioned above, innovativeness was the first criterium used for sampling in the present research. The second is related to level of analysis. The case material derives from adaptation processes at the business unit level as these are expected to entail greater transparency than the comparatively complex corporate-level processes (cf. Pettigrew, 1990). The dominant belief system at the corporate level is usually more abstract as it is focused on the firm as a whole rather than on individual businesses (Whitley, 1987). As it turned out, corporate managers did have a hand in both the adaptation trajectories selected, bringing additional convergence between the cases. The third sampling criterium has been the type of response. Both cases involve a strive for stronger customer focus and a major restructuring to attain this. Besides criteria that set the stage for replication of the theoretical ideas, some criteria were applied to spur extension. While in the case of Citigroup a performance crisis precipitated adaptive action, the adaptation process at ING did not emerge out of a crisis situation. Rather, general environmental changes increased awareness of decision-makers, giving way to the change effort. From the case data, another important difference emerged. Whereas the Citigroup managers redefined the customer set, decision-makers at ING left the target market untouched. Emphasis in this change process was on restructuring of the division. Finally, extension opportunities are present in the distinct national backgrounds of the companies. Both of the adaptation processes selected were largely completed when the research started. This selection criterium was used to increase the chance of full access to data.

The adaptation processes were chosen on basis of the transparency criterium (Pettigrew, 1990). Selecting cases where the process of interest is transparently observable is especially important when complexity is high, for example when studying dynamics over multiple levels of analysis. Because the study aims at relating changes in managerial perceptions and beliefs to changes in formal and actual organizational functioning, trajectories were picked that reflected clear shifts in strategic orientation. This was assessed, first, by taking notice of publicly available accounts of change processes and, second, by contacting the company to check the assessment. Focusing on a particular strategic trajectory is consistent with Burgelman (1983)'s and Quinn (1980)'s observations that the logic of a change process is dealt with largely on its own merits and usually with a different subset of people. The identification of starting and ending points of the analysis is relatively simple for distinct trajectories. Choosing a single adaptation process as the unit of analysis seems to contradict a conceptualization of change based on continuity. This is not believed to be the case. Applying a processual and multi-level mode of analysis, the change trajectory is delineated as a series of events related through time and place and embedded in a broader temporal context. The entire set of processes that constitute firms over time include the discontinuous change episodes (Pettigrew et al., 2001) and those changes that are incremental, ongoing, and cumulative (Brown and Eisenhardt, 1997). Even though change episodes are the main focus in this research, they are not treated without consideration of the overall sequence of processes.

The complexity of processual and multi-level analysis entails practical problems related to time and resources. To overcome these problems, the phenomena and levels of analysis of interest should be specified a priori (see section 3.1). Three types of phenomena are investigated: cognitive, behavioral, and contextual. The cognitive variables under consideration are beliefs and perceptions. As was noted in the previous chapter, the beliefs that are of particular interest to the present study are the ones regarding the nature of the business and the appropriate means of organizing within this business. The perceptions included in the study concern organizational and environmental characteristics. Behavioral factors include strategic and recurrent actions. Finally, context refers to the factors that lie outside of the subject system and have an impact on it.

3.3 Data collection

A difficulty in cognitive research, especially beyond the individual level, involves the development of valid measures. Cognition is confined to actors' minds. Some scholars have used external individual characteristics such as age and tenure as proxies for cognition (Hambrick and Mason, 1987; Wiersema and Bantel, 1992). However, evidence for a relationship between cognitive bases and external characteristics seems equivocal at best (Markóczy, 1997). An appeal has been made to construct more direct measures of cognition (Meindl et al., 1994; Walsh, 1995). In studies responding to this call, two assumptions are primary. Decisions and actions are often assumed to be reflections of perceptions and beliefs (Porac, Thomas and Baden-Fuller, 1989; Schneider and Angelmar, 1993). Under this assumption, the investigation of cognitive patterns implies looking for their manifestations in behavior or statements (Barr, 1998). For example, scholars have focused on the extraction of decision-makers' cognition from annual reports (Barr et al., 1992; Bettman and Weitz, 1983). In line with this first assumption, the presumption that individuals are able to verbalize their perceptions and/or beliefs has been widely accepted. This second assumption sets the stage for interviews as a key source of information.

Going beyond the individual level of analysis also poses specific challenges. Scholars have been criticized for their inclination toward aggregated measures of collective cognition (Schneider and Angelmar, 1993). Adding up individuals' perceptions and beliefs to get to collective cognition leaves the role of, for example, social processes unattended. Schneider and Angelmar (1993) advocate the use of global over aggregated measures of cognition when investigating emergent properties of collectives (cf. Bettis and Prahalad, 1995). Aggregated measures are deemed appropriate when examining how individual contributions combine to create collective cognition. What distinguishes global measures from aggregated ones is mainly the assignment of data directly to the collective, rather than first to its members or to relations between them (Lazarsfeld and Menazel, 1961). Potential sources of information are key informants reporting on a collective's cognition, cognitions of leaders of the collective, and collective products such as minutes of meetings and internal reports (Schneider and Angelmar, 1993: 358). Aiming for insight in decision-makers' and middle managers' cognition as emergent properties in adaptation processes, the present study uses global measures of perceptions and business beliefs. It builds on previous research by inferring perceptions and beliefs from milestone documents and the recollections of key informants.

Data sources

Initial interviews with project managers were conducted to get at the key actors of each adaptation trajectory. The first group of interviewees were people directly involved in the early stages of the adaptation process. By asking these informants about the process in general and their role in specific, a picture was generated of how adaptation had taken place and which actors had contributed in what way. Besides the more general questions, a second set of questions was asked to find out how decision-makers' perceptions and beliefs had played a role in the change process. Emphasis was on the dominant conception of the industry and appropriate organizing principles –if applicable- rather than on individuals' conceptions. The third set of questions presented to this group of respondents aimed at revealing how lower-level managers acquired new cognitions and behaviors in line with the changes initiated by decision-makers.

From the interviews emerged the need for interviewing an additional group of people, i.e. those directly involved in change initiation efforts at levels below the overall divisional level. As it turned out, these middle managers played an important role in diffusing key beliefs and perceptions throughout the divisions. The interviews with middle managers contained two sections; one addressing change process issues and the other covering cognition contents. In both first-level and second-level interviews, the questions were elaborated with follow-up questions. The protocol that was used to guide the interviews is displayed in Appendix C. The interviews, averaging one to two hours in length, were transcribed verbatim from tape recordings. Interviewees were explicitly informed about the fact that their statements would be used anonymously. For accuracy, notes were reviewed immediately after the interviews and before transcription. In total, over 40 interviews were conducted for the set of case studies. The interview samples of ING and Citigroup are presented in Table 3.2.

Table 3.2: **Interview samples**

ING	**Citigroup**
Interviewees:	Interviewees:
Divisional board members (3)	Corporate-level managers (1)
Project managers (3)	Divisional head/project leader (1)
Project team members (2)	Project managers (2)
Strategy consultants (3)	Project team members (2)
Advisory staff members (3)	Chiefs of staff (2)
District chairmen (3)	Country/market managers (2)
Segment managers (2)	Global Industry Heads (4)
Change management consultant (1)	Managers in industry groups (2)
	Parent account managers (1)
Interview period:	Interview period:
January 2000-July 2001	Maart 2000-August 2002
Number of interviews:	Number of interviews:
22	20
Number of pages text yielded:	Number of pages text yielded:
167 (double-spaced)	187 (double-spaced)

Individual recollections are subject to retrospective rationalizing. To minimize a bias in the data, cross-checks for inconsistent findings were conducted. The interview data were also triangulated with information from internal documents and secondary industry data (see Tables 3.3 and 3.4). The use of archival data is based on the assumption that decision-makers exchange perceptions and beliefs which are objectified via decisions and actions. Analysis of written communications has been considered useful for reconstructing perceptions and beliefs of their authors (Holsti, 1968; D'Aveni & MacMillan, 1990). Using interviews and documentary records as partly overlapping and partly complementary data sources increases the quality and richness of the findings.

Table 3.3: **Document sample IBN**

Source	**Evidence**
Visionary statement (Nov 1996)	New strategic direction and planned changes
Board minutes (Jan 1995-June 1998)	Segmentation-related discussions; formal decision-making
Work council reports Outlines of Segmentation (Nov 1996) Blueprint (May 1997) Market management HQ (May 1997) District organization (May 1997)	Planned and implemented changes in strategy and structure
Evaluation report (Nov 1999)	Post-reorientation evaluation
Organizational charts	Structure of ING and structure of IBN pre- and post-Segmentation
Annual reports (1991-1998)	Financial standing Scope of activities Environmental perceptions at firm level Strategic plans
Banking textbooks	General information on industry developments between 1970-2000
Banking journals (The Banker, National Westminster Bank Quarterly Review)	Real-time information on technological and regulatory developments
IMF reports	Real-time information on regional trends
BIS reports	Real-time information on industry trends

Table 3.4: **Document sample Citibank**

Source	Evidence
Visionary statement (18 April 1995)	New strategy, organizing principles and steps to be taken
Change report (1997)	Detailed account of the change process, content, and context written by external consultant
Various client presentations (1998-1999)	Systematic explanations of GRB business model: organizing principles, performance measures
Annual reports (1991-1998)	Financial standing Scope of activities Environmental perceptions at firm level Strategic plans
Books and articles about Citigroup in general and the GRB in specific	Company history Company culture Managerial perceptions and beliefs Changes in formal and actual functioning of corporate bank
Banking textbooks	General information on industry developments between 1970-2000
Banking journals (The Banker, National Westminster Bank Quarterly Review)	Real-time information on technological and regulatory developments
IMF reports	Real-time information on regional trends
BIS reports	Real-time information on industry trends

Access was gained to the minutes of IBN board meetings. These real-time documentary records served as an important check to retrospective sensemaking. Between January 1995 and June 1998, 90 regular board meetings and 10 strategy meetings resulted in 61 pages of double-spaced text on the adaptation process. No minutes were available in the Citigroup case, indicating a difference in decision-making style. However, there were various other documentary sources giving an in-depth understanding of adaptive actions and underlying ideas and assumptions. Over 1500 pages of archival material were collected for both cases.

Data validity and reliability

The quality of any empirical social research can be assessed in terms of data validity and reliability. *Construct validity* derives from the establishment of correct operational measures for the concepts being studied (Yin, 1984). Due to beliefs' inherently abstract nature, construct validity is here of special concern. It is not easy to reveal taken-for-granted assumptions and discover how they interact with decisions and actions. As a result, academics have generally either stayed away from measuring beliefs or have used proxies. The use of, for example, demographic characteristics to measure beliefs increases reliability because such observable characteristics are easy to measure. However, as was noted before, findings have been mixed and have made scholars aware of the need for more direct measures (Markózy, 1997; Meindl et al., 1994). The fact that the alternative approach applied in the current research relies heavily on recollections of individuals and document analysis raises concerns about validity. To increase construct validity, several measures were undertaken: (1) what was said in interviews was compared with what was written down in milestone documents, (2) follow-up questions were asked that required interviewees to demonstrate what statements meant in practice, and (3) key informants were consulted to validate the project description once it was completed. In contrast, perceptions could be measured pretty straightforward, by asking respondents directly about them and by adopting organizational and environmental features brought forward in milestone documents as representative of decision-makers' perceptions.

The second criterium, *internal validity*, relates to the overall problem of making inferences. Case studies involve inferences every time a phenomena or event can not be directly observed, which in the present research applies to several variables and relationships. To establish internal validity, evidence should be convergent and as airtight as possible. It was increased by triangulation of data sources and by cross-checking interview findings to get to converging evidence (Eisenhardt, 1989a).

External validity concerns the generalizability of the findings beyond the immediate case studies. This case study research relies on analytical generalization; the researcher aims at generalizing a particular set of findings to some broader theory (Yin, 1984). The findings that derived from the analysis of the first case informed the preliminary framework. The second case allowed for replication of the findings, thereby increasing external validity. It should be noticed, however, that contextual differences constrained generalizability.

The *reliability* criterium refers to the likelihood of arriving at the exact same findings when replicating an empirical study. To increase the study's reliability, steps in the data collection and analysis process were made as operational as possible (Miles and Huberman, 1984). A case study protocol was designed for the first case and then replicated in the second one. Appendix D shows the main protocol questions linked to information sources and sample strategies (cf. Yin, 1994).

3.4 Data analysis

The analysis of large amounts of process data requires special care. Which strategy is chosen influences which issues are focused on and how they are interpreted. The mass of process data was transformed into blocks related to (1) cognition at the decision-maker level; (2) cognition at the organizational level; (3) strategic action; and (4) recurrent action.

Within-case analysis

Studying multiple cases, preparation of detailed case study write-ups for each site is the first step in case analysis (Eisenhardt, 1989a). Scholars have employed various techniques and formats in case descriptions. Narratives, sequence analysis, pattern-matching, and the use of tabular displays and longitudinal graphs are all aimed at generating insight into a case as stand-alone entity (Miles and Huberman, 1984). Analyzing the cases separately before moving on to cross-case investigation allows the unique patterns of each case to emerge (Eisenhardt, 1989a). Four analyses were critical for the purpose of the study: (1) an analysis of core business beliefs and perceptions at the decision-making level over time (2) a reconstruction of the strategic actions constituting adaptation; (3) an analysis of change in recurrent action; and (4) a context analysis to pinpoint relevant organizational and environmental factors.

The analyses derive from a identifiable set of steps. First, central ideas and inferences were distilled from the interviews and divisional records. Recurrent and salient topics were recorded on contact and document summary forms (Miles and Huberman, 1984). Secondary company, industry, and country records were used to build a thorough understanding of the factors indicated by key informants as pivotal in the adaptation process. The third step involved linking themes from interviews and documents to understand why and how formal and actual organizational functioning, via the application of generative business beliefs, and in its context, changed considerably. From the analyses, an in-depth acount emerged of how cognition evolved with action to result in the adaptation of the organizations in response to environmental change.

Cross-case analysis

The cross-case search for patterns begins with listing the similarities and differences between the two cases. To counteract the natural tendency to leap to conclusions based on limited data, similarities were searched for while bearing in mind the contextual differences between the cases and, consecutively, differences with explicit consideration of similarities. This approach lowers the risk of being carried away by expectations. From the cross-case analysis, certain patterns emerged which were then compared with the extant literature. This involved asking where the analysis confirmed and where it contradicted findings from previous work in the area of cognition in organizational adaptation. The data analysis procedure is summarized in the form of a flow chart in Appendix E.

3.5 Conclusion

The processual and multi-level research design described in this chapter allows for exploring the role of cognition in organizational adaptation processes. Conducting case studies in one industry and two national contexts helps to control confounding effects while warranting diversity. The research process was iterative, in the sense that findings in the first case served as input for the second case analysis and the other way around. Equally so, findings triggered complementary investigations within each case. By means of the various information sources –interviews, company documentation, secondary data sources- it was possible to triangulate data, and improve the strength of the main conclusions (cf. Denzin, 1978). The next two chapters report on the results of the case analyses.

CHAPTER 4
THE CASE OF ING BANK NEDERLAND

ING Bank Nederland (IBN) is the home market banking division of ING, the largest Dutch financial services provider[7]*. Between 1994 and 1998, IBN's managers initiated a series of changes in response to new environmental conditions. They proclaimed their dedication to a market segmentation strategy and implemented new rules to its support. The heart of this chapter is the description and analysis of this adaptation effort. First, the case is briefly introduced. The second section illuminates the environmental changes that gave way to adaptation. Then, in the third section, it will be explored how the structural reordering of environmental conditions related to decision-makers' conception of the business and of critical organizing principles and performance measures. The fourth section concerns the analysis of decision-makers' response, in terms of strategic actions. The difference between resources and cognitive structures as levers for organizational change is key. Fifth, the results of the adaptation process in terms of changes in recurrent actions are being discussed. The chapter concludes with a wrap-up of interesting findings.*

4.1 Introducing the case

The financial services provider under consideration in this chapter, ING, is a so called 'universal bank'. Basically, this means that the company provides a broad array of client segments with an extensive range of financial products (Walter, 1997). ING offers banking, insurance, and asset management services to retail and wholesale customers in the Netherlands and abroad. The Dutch conglomerate came into being in 1991, as a result of the merger between NMB Postbank and Nationale Nederlanden. The overall organizational structure has been changed several times over the years. While the various ING divisions and subsidiaries have been largely autonomous in the first ten years of the firm's existence, corporate management has recently announced the integration of parts of the company to increase synergy (ING Annual Report 2001, Message of the Chairman). A tighter coupling between businesses indicates ING's pursuit of a bancassurance strategy.

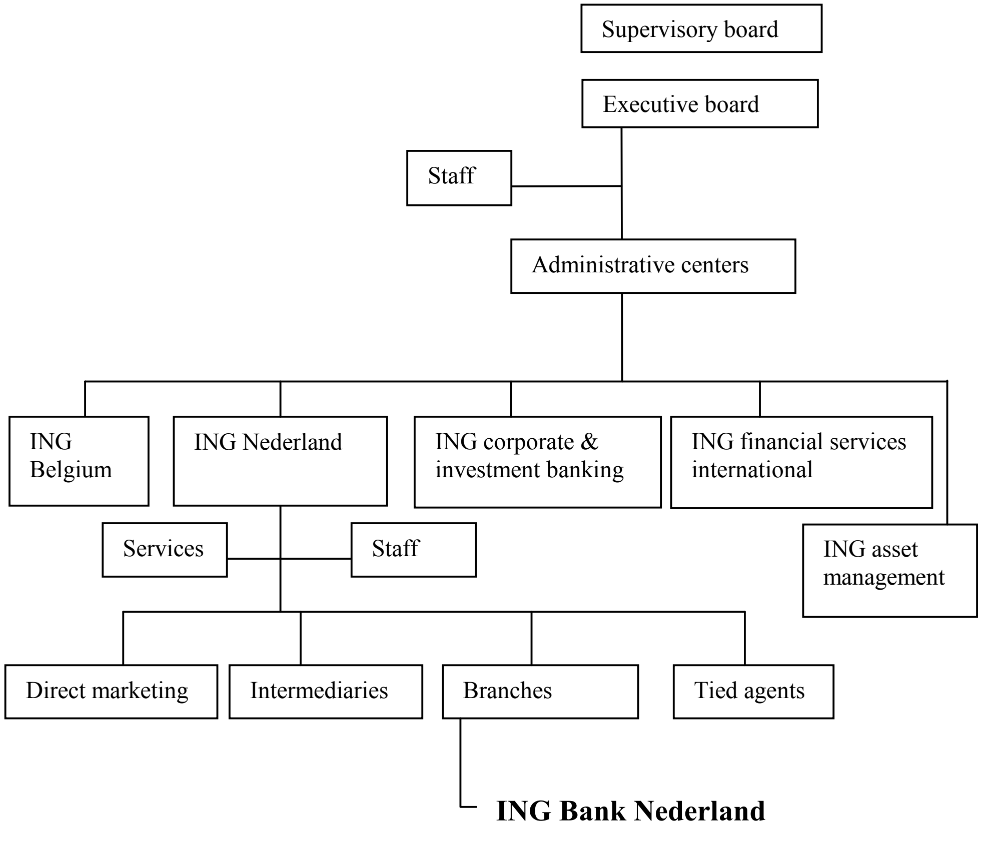
ING Bank Nederland (IBN) is the division within ING responsible for providing banking services to both wholesale and retail customers in the Netherlands. It was founded

---

[7] Source: Fortune, 22 July 2002

in 1994 as part of ING Nederland which is one of five executive centres[8]. Its core consists of a branch network. Compared to the other large Dutch banks ABN Amro and Rabobank, the size of this network has been limited (Financieele Dagblad, 27 January 2000). Figure 4.1 shows the position of IBN within the overall corporate structure. Exhibit 4.1 gives a profile of the division.

***Figure 4.1*: Position of IBN within ING (1997)**



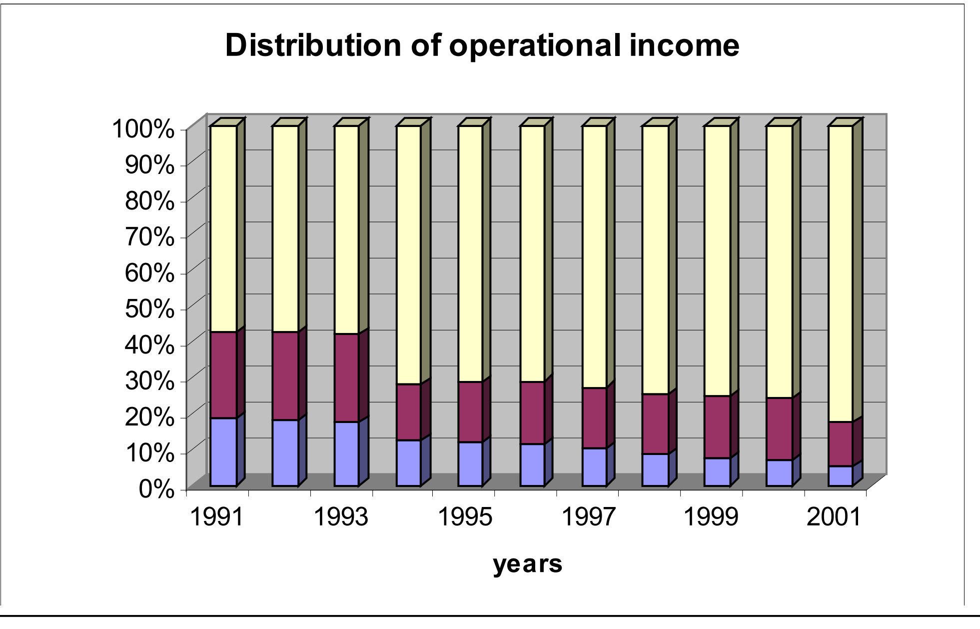
[8] The original structure chosen for the corporation contained four executive centres (ING Nederland, ING Financial services International, ING Corporate & Investment Banking, and ING Asset Management) managed by an executive board (Annual Report 1992). Later on, ING Belgium was added as a fifth centre. In 1999, the executive centres are reorganized into ING Europe, ING North and South America, ING Asia/Pacific, ING Corporate & Investment Banking, and ING Asset Management.

Exhibit 4.1: **Profile of ING Bank Nederland**

ING Bank Nederland

IBN employs 10,000 people. The branch network consists of 24 districts, each headed by a chairman who is supported by two vice-chairmen. Within each district, there are a number of area offices as well as some smaller, local branches. In total, the network comprises 150 area offices and 200 local branches. The bank branches sell banking and insurance products of ING. The branches have long been highly autonomous units, each governed by a branch manager who held decisional power over many issues concerning the particular unit. The emergence of new distribution channels in the 1990s (e.g. Internet, call centres, ATMs) has eroded the hegemony of branch managers. Besides selling banking and insurance products, IBN offers direct marketing services to wholesale clients of the Postbank, one of the primary subsidiaries of ING (*Interview project manager*, 15 November 1999). Besides the branch network, IBN has a headquarter office. This is where a number of product departments are located, and supporting staff (e.g. IT, Strategy, Finance), and the divisional board of IBN. Each divisional board member (in 1998: 5, in 2002: 6) holds responsibility for a particular portfolio of activities. Strategic issues are decided on collectively. To assess the strategic importance of the division to ING in the 1990s, operating income from banking activities in the Netherlands has been presented as a share of operational income from all banking activities and overall income (Figure 4.2). A substantial part of home market banking activities is being conducted by IBN, which makes operational income from these activities a suitable proxy. The figure shows a continuing decline in income from Dutch banking activities relative to total banking income and total income.

***Figure 4.2*: Operational income from banking activities in the Dutch market as percentage of total banking income and total income (1991-2001)**



In October 1997, the divisional structure was formally changed in the scope of an adaptation initiative called Segmentation. The actual change process essentially took place between 1994 and 1998. It involved a shift toward a stronger customer orientation, entailing substantial alterations in roles and responsibilities. The branch network was reorganized and a matrix structure was created with geography and client segments as its layers. Decision-makers at the divisional level felt that these actions were necessary to cope with the changed environmental conditions. They were encouraged in their attempt by corporate management. Segmentation is the subject of study in this chapter. The following sections contain an in-depth discussion of the way in which the adaptation process unfolded, highlighting the role of cognition.

4.2 At the contextual level: Environmental characteristics

The financial services revolution is a shorthand expression for a series of changes in business practices that have come over the industry in the advanced capitalist world, notably since the early 1970s (Whitley, 1998). Although many developments have been manifest everywhere, *when* and *how* they have taken place often differs substantially between countries and regions. Besides contextual variation, external conditions under which firms operate reflect country-specific factors such as regulation and political structure. In analyzing which environmental changes triggered the particular adaptation at IBN, focus is on the Dutch context. This thesis deals in the first place with *perceived* environmental characteristics, building on previous research that has linked the type and timing of response to managerial interpretation of the environment (Barr and Huff, 1997; Bateman and Zeithaml, 1989; Thomas et al., 1993). Interpretation is inextricably bound up with observation. The limited observation scope of actors is also likely to explain part of the variance in the response of firms operating in the same surroundings. To put managerial perceptions into perspective, an industry frame for the Netherlands was constructed on basis of secondary sources (see Exhibit 4.2). To secure reliability, developments were only included in the frame if they had been marked as influential by various authors. The description of key developments that have characterized the Dutch banking industry over the years helps to understand how the industry transformed from a relatively stable to a dynamic and more uncertain environment. This transformation has confronted bank managers with the need to increase their cognitive adaptability (cf. Bogner and Barr, 2000; Tripsas and Gavetti, 2000). It is this context that the case study presented in this chapter should be considered.

Exhibit 4.2: **The changing face of the Dutch banking industry**

Environmental changes

To bring order into the complex bundle of developments that have characterized the Dutch banking industry over the last thirty years, the dynamics are divided into broad categories: economy, policy & regulation, technology, competitive dynamics, and business practices. The industry history covers the period 1970-2000 to reveal the impact of the financial services revolution in its entirety.

Economy In the 1970s, economic growth was substantial despite an economic recession in 1974-1975. In contrast, the early 1980s were crisis-infested. Both the national and international economic arena were subject to recessions in this period. In the 1990s, the Netherlands experienced a long and smooth economic recovery. The Dutch government withdrew from many areas, leaving people to save more for their pensions and insurance schemes. Gross domestic product grew at 3 per cent per year in the 1990s. The Dutch banking market turned out to be more lucrative and bigger than a lot of people had thought in the 1980s. Demand for financial services expanded by 10 per cent annually. Dutch consumers, who traditionally kept their money in savings accounts, started buying shares when interest rates dropped (Kuper, 1997).

Policy & regulation In the 1970s, the influential position of Dutch banks came under criticism. This led the Dutch government to propose the creation of a new bank by combining two governmental financial institutions. After years of discussion and a number of adjustments in legislation, the Postbank was finally established as an independent organization in 1986 (Van Zanden and Uittenbogaard, 1991). Starting in the early 1980s, a gradual process of deregulation and harmonisation took place in the European Union. Flier et al. (2001) distinguish three types of regulatory changes shaping this process: (1) the elimination of restrictions on domestic competition; (2) the change of scale and scope of financial activities; and (3) the improvement of the external competitive position of financial firms. International exchange of capital was deregulated. Tax law reforms were another regulatory development with a considerable effect on the Dutch banking industry. The First and Second Banking Directives triggered liberalization and internationalization of the European financial sector. It allows European banks, investment firms, and insurance companies to hold unlimited reciprocal equity participations, implying that there are no limits on the formation of financial conglomerates (Van der Vennet, 2002).

Technology Three fundamental technological shifts have taken place over the years. First, technological advances have triggered the development of new distribution channels and techniques (Flier et al., 2001). Call centres, ATMs, the Internet have broadened the possibilities bankers have to deal with their clients. The relatively expensive face-to-face technique is no longer necessarily the most appropriate way for servicing a client. This has triggered contemplation and recreation of existing business models, starting in the 1990s and continuing to date (Hensmans, Van den Bosch and Volberda, 2001). The second shift has occurred in the area of management information systems, both financial and non-financial (*Nolan Norton Institute*, 1997). The aim is for real-time access to sales and revenue data. Despite large investments in IT, the Dutch banks have still not achieved this completely. The third technology-driven change is financial engineering. This shift is constituted by the design of new financial instruments such as options, futures, and swaps. Compared to traditional banking products, these instruments often provide tailor-made services and offer clients the ability to hedge against risk.

Competitive dynamics In the 1970s, the Dutch banking landscape had been dominated by a few large players, the general banks. The level of competition between these key players was established by gentlemen's agreements. 'Cash in and prosper' was a primary rule of the game. Loosening regulation of cross-border capital flows increased competition in the wholesale banking market in the early 1980s. With the increasing openness of financial markets worldwide and also with the rapidly approaching integrated European financial market, the conviction grew that even the largest Dutch banks were too small to compete successfully against international players. In the 1980s, attempts at cross-border mergers proved abortive, forcing Dutch banks to turn to each other. Some shake-out and consolidation at the national level was the result. These changes in competitive structure were fueled by the abolition of a governmental policy dating back to 1974 which had made it impossible for banks and insurance companies to merge. Important events were the merger between Postbank and NMB in 1989, the subsequent merger between NMB Postbank and Nationale Nederlanden into ING and the merger between ABN and Amro in 1991. The affiliated merchant banks of ABN and Amro, Pierson, Heldring & Pierson and Bank Mees & Hope followed suit to become Bank Mees Pierson in 1992. The consolidation process left the Dutch banking industry dominated by three players: ING, ABN Amro and Rabobank. The latter is the central organization of the agricultural cooperative banks which was formed in 1972 (Van Zanden and Uittenbogaard, 1991). Despite the developments in the 1980s, on the threshold of the next decade the financial landscape was still relatively static in terms of competition. Minding one's own business was the creed (*Nolan Norton Institute*, 1997).

Although competition intensified in the 1990s, strategy to date is seldomly carried out with the explicit purpose of giving a blow to the competition. The Dutch banking landscape is still dominated by Dutch financials. The low margins on banking products have proved instrumental in serving as an entrance barrier, curbing the impact of foreign competitors on Dutch ground (Bakker, 1996).

Business practices The economic crisis in the early 1980s led to a downswing in the performance of Dutch banks. Cost-cutting measures undertaken by bank managers marked the beginning of a new era for an industry which up to that point had known mostly prosperity (Bakker, 1994). Deregulation of cross-border capital flows in the same period encouraged the development of new financial instruments. Product innovation was also stimulated by the decreasing margins on traditional bank products, urging managers to find new sources of revenues. Traditional functions and client segments typically applied by the main Dutch banks in the pre-1975 period deteriorated and cross-selling and customer ownership became the new buzzwords in the 1980s and early 1990s (Bakker, 1996). Despite the changes that had taken place, in the early 1990s continuity still prevailed over profit growth. However, intensifying competition due to technological advances as well as the entrance of unregulated nonbanks in the financial services market triggered the emergence of new business models (Smith and Walter, 1997). During the 1980s and early 1990s, financial values were not a top priority of bank managers. They were generally satisfied with an increase in profit per share of 1-3 % (*Financieele Dagblad*, 4 May 1996). The 1990s showed an increasing concern for shareholder value, a concept already common to banking in the U.S. and the U.K. The idea that growth should be covered financially by internal sources rather than by the issue of shares has received increasing support. Dutch banks reconsidered their strategies to deal with the erosion of traditional distribution channels and with the increasing power of their buyers and suppliers. Improvements in operational efficiency and a sharper strategic mind in assessing the market for financial services became pivotal. In continental Europe Dutch financials have been at the forefront of rationalization and cost cutting, reducing the number of bank branches and centralizing back office operations (Bakker, 1995; Volberda et al., 2001).

4.3 At the decision-maker level: Perceptions, business beliefs & strategic actions

Up to the mid 1970s, the Dutch banking environment was characterized by stability and certainty (see section 4.2). Bankers were powerful in the sense that they decided whom to serve and what to offer. For example, ABN and Amro which traditionally aimed for the higher end of the wholesale market were reluctant to provide financial services to retailers. The financial services revolution which started in the 1970s made bank managers realize that they needed to change their conceptualization of the business and adjust strategies and structures accordingly. Dutch banks started to enter each other's core domains which led to an upswing in competitiveness. Awareness of the importance of a strong client focus grew which triggered restructurings. An adaptation effort in the late 1980s within NMB, the predecessor of IBN, concerned the injection of a stronger customer orientation in the branch network. This change process was dictated by a performance downswing. Discussions emerged within NMB about customer loyalty and cross-selling. What was earned on different products and customers became issues of interest. How complicated these issues were and how radical the departure from existing practices and ways of thinking appears from a recollection of a NMB executive at that time:

> *That is a terrible process, a ter-ri-ble process. To find out how much is earned with particular products and why. Because we were doing things that made us no money at all and we were doing other things which made us a lot of money. [...] We had a branch which delivered a bag of money. We did not know the various parts, we did not know the costs related to a cash transfer. The process is very complicated. All kinds of discussions about accountability emerged [...]* (interview, 16 July 2001).

The call for a stronger customer focus as a response to shifts in business conditions was repeated in the mid 1990s when previous adaptation efforts were considered insufficient for the bank to remain competitive in the long run. While the branches had been redesigned and a separation had been made between wholesale and retail, detailed knowledge of revenues and costs for separate product and client groups was still not available. Within the wholesale and retail segments, client needs were still assumed to be homogeneous. The adaptive effort considered in this chapter, which goes under the name of Segmentation, represents a key attempt for alignment between IBN and environment in the 1990s.

How it started: Triggers for adaptation

In the Fall of 1994, the chairman of IBN presented a vision for the year 2005 to ING's executive board at the annual corporate management meeting. The executive board had asked for a longer-term outlook regarding the Dutch banking industry as numerous environmental changes had been noticed and were expected to have an impact on IBN. The vision highlighted the effects of technological advances on consumer behavior and industry practices. It contained a broad indication of the way in which the divisional management board felt had to be dealt with the changing environmental conditions. A project member who was involved in an early stage of adaptation recalls:

> *Pivotal in this speech was the question how to deal with clients in the future. And: Which consequences does the use of new distribution channels have for the IBN*

> *organization? [The chairman] gave the following example: In the evening a client contacts a call center and the following morning the account manager exactly sees what has been discussed and action can be taken. At that time, [this vision] was quite revolutionary* (interview, 3 February 2000).

How technology could reduce operating costs and improve customer service was a question on the top of mind of most corporate and divisional decision-makers of Dutch banks in the early and mid 1990s (Bakker, 1991; *Nolan Norton Institute*, 1997). This was encouraged by statements in the popular business press, newspapers, and consultancy reports such as the one by a leading strategy consultancy firm indicating that the future winners in financial services would be those firms without bank branches (*source*: interview chairman of divisional board IBN). The vision was built on a conceptualization of the Dutch banking business for the next ten years to come. Several interviewees considered the speech as the key starting point of the adaptive effort under consideration in this chapter.

In creating the vision, divisional management had been supported by the particular strategy consultancy firm that had made predictions for the business based on their experiences in other countries and equivalent industries. This firm had an established reputation in the worldwide financial services sector. Its consultants were also involved in strategy exercises in two other large Dutch banks: ABN Amro and Rabobank. One of the things the strategy consultants did to support IBN's chairman in his strive for alignment with the changing environment was the arrangement of company visits. They arranged for the divisional board, complemented with several staff members, to visit a number of American and European financial institutions for understanding where the industry was headed to and how other firms were responding. That these visits affected decision-makers' thinking is emphasized by the divisional chairman who had taken over this role in early 1995:

> *We spoke with all the main banks. And we generated ideas that we used. What was especially noticable there was the click-call-face thing. You have an enormous client base and the clients from which you make money, those are the ones that you want to provide with a face treatment, an account manager. So you try to segment clients in a way that encourages them to use the appropriate distribution channel. […] That is what you saw happening in the United States at that moment. And that is what we emphasized* (interview, 18 July 2001).

Numerous competitor banks were shifting from a geographically defined structure to one designed around customer segments. The strategy consultants advocated a similar restructuring of IBN. However, seeing other banks shift toward a segment-based structure made IBN's decision-makers hesitant to do the same thing. Notifying the homogeneity in firms' responses to industry dynamics raised the idea among divisional managers that sticking to the existing strategy might prove beneficial to IBN. Doing things differently was considered a potential key to success in the Dutch banking industry. This idea did not last, however, as insights in the shortcomings of IBN's existing business model evolved. According to the consultant who was closest involved in this early stage of adaptation, his firm played an important role in the change of decision-makers' beliefs about how to succeed in the changing Dutch banking industry:

> *My guess is that [our firm] has been the driving force in the beginning by saying: You really have to break through existing frames of mind and you need to get rid of the idea that everything is determined locally* (interview, 13 June 2001).

The next step: Determining the new direction

With a preliminary conception of the business and some preliminary beliefs about how to succeed in it in place, the divisional board decided to put a project manager in charge of elaborating on the ideas with the intention of formulating a new direction for the division. This decision that was taken in early 1995 was the starting point of a period of dedicated evaluation of IBN's business model and practices. Figure 4.3 provides an overview of the main events taking place during Segmentation at the decision-maker level. To get to this overview, the key actors throughout the adaptation processes were interviewed to start with. The main events indicated by these actors were cross-checked, for their content as well as time line. The interview data on adaptation events were also checked against milestone documents. Formal plans proved especially informative with regard to formal decisions and actions. Minutes of divisional board meetings provided a lot of insight into how new cognitions emerged, and how decisions and actions were initiated based upon these cognitions. A formal evaluation report gave information about main bottlenecks in the process and key learnings. Showing the dynamics over time and across levels, the overview of the main Segmentation events throughout the adaptation process offers a sound foundation for processual and multi-level analysis.

***Figure 4.3*: Main Segmentation events at the decision-maker level**

Oct 94	*Nov 94 Dec 94 Jan 95 Feb 95*	*Mar 95 Apr 95 May 95 Jun 95 Jul 95*
Vision 2005	Selection & appointment of project members	Evaluation of current business model; elaboration on vision; emphasis on segmentation

Aug 95	*Sep 95*	*Oct 95 Nov 95*	*Nov 95 Dec 95*	*Jan 96*	*Feb 96 Mar 96*
	Presentation of plan	Decision: focus first on structure & responsibilities; presentation of plan to BoD	Decision: creation of steering committees on segments, AO & accommodation matters		Kick off project organization

Apr 96	*May 96*	*Jun 96 Jul 96*	*Aug 96*	*Sep 96 Oct 96*	*Nov 96 Dec 96*
Proposal for # of districts	Urge for more clarity on responsibility & resources	Ad hoc evaluation of adaptation process; aim for better insight in market	Presentation to Board ING NL; approval on most issues	Appointment of segment managers; communication to organization members; creation of client databases	Segmentation advice request to work council; development of segment strategies icw consultants

Jan 97	*Feb 97 Mar 97*	*Apr 97*	*May 97*	*Jun 97 Jul 97*	*Aug 97 Sep 97*
Kick-off at HQ	Decisions on structure of segments; pilot on paper in 1 district		Decision to appoint external manager for implementation	Discussions about role segment manager & communication to organization; preparation of implementation	Approval of staged implementation approach; external change manager hired

Oct 97	*Nov 97*	*Dec 97*	*Jan 98*	*Feb 98*	*Mar 98*	*Apr 98*	*May 98*
Decision on pilot for real in one district		Discussion on proposal for culture change			'Train the trainer': change course aimed at decision-makers		Change program aimed at middle managers

Jun 98 Jul 98 Aug 98 Sep 98 Oct 98	*Nov 98 – Sep 00*
Implementation of new rules & other resources in all districts	

Sources: interviews; minutes of divisional board meetings; proposals to work council; reports

The analyses conducted by the project team –which consisted of a few IBN staff members and the strategy consultants- yielded two important insights. First, they revealed how and why IBN's business model did not meet the demands of the market. The increasing transparency of markets and its presumable impact on customers' knowledge of available products and services was pointed out. The advancing automation of financial transactions was expected to lift the importance of transaction facilities and bank accessibility. The analyses also raised the expectation that professional marketing and market penetration would become critical success factors. Emphasizing that customers should be able to make their own choices, the project team expressed the perceived need for a stronger customer focus. IBN's business model was shown to be too expansive. Only twenty per cent of the customers was generating profits. Second, the analyses indicated the benefits of organizing along the lines of customer segments. The insights led the project team to propose a shift from the geographically-based structure to one revolving around the customer.

In the business model evaluation process, the divisional board members were the true decision-makers. Frequent meetings with the project team kept them informed about the plans and allowed them to come out with ideas, confirm and correct. One of the issues emphasized by decision-makers in the evaluation process was the need for holding on to the strengths of IBN. The figurehead role of the branch manager in local communities was considered one such strength. Some plans proposed by the project team were expected to erode this role. Extensive weighing of the pros and cons of geography versus client as organizing principle fueled the belief in the appropriateness of a segment-based structure. Another key issue in the evaluation and formulation process was how to measure results in the new structure:

> *There was a huge issue with regard to measuring things because the result of a branch is completely measurable but the result of a segment is not measurable. Because you then need to define who is in that segment. Clients are not divided into segments because a lot of clients…you know they are your clients but you do not know whether it is a large or a small company* (source: strategy consultant).

Table 4.1 summarizes the key shifts in decision-makers' business beliefs underlying the Segmentation project.

***Table 4.1*: Key shifts in IBN decision-makers' business beliefs**

Old business beliefs	New business beliefs
Banking industry is a stable environment	Banking industry is a dynamic environment
Financial needs of customers are homogeneous	Financial needs of customers are heterogeneous
To be successful, the division should be organized around geographies	To be successful, the division should be organized around geographies as well as customer segments
Consequently, customers should be served by the IBN unit that is geographically nearest	Consequently, customers should be served by the IBN unit that can meet their specific demands the best –in terms of knowledge and experience. Knowledge sharing across geographical boundaries becomes a key organizing principle
To be successful, branches need to be mini-banks; with a back- and a front-office	To be successful, branches need to be service units. Back-office activities need to be separated and centralized to increase effectiveness of sales operations and efficiency of back-office

Sources: interviews; board meeting minutes; formal project plans

While the vision presented to the executive board in the Fall of 1994 revolved around the changing environment and its impact on IBN, by the end of 1995 decision-makers' attention was mostly directed at internal design issues. How to succeed in Dutch banking had become mostly a matter of which roles and responsibilities to establish. The assistant of the IBN project manager recalls:

> *Suddenly there was a lot of emphasis on organizational design: Who will be put where, what are the relationships? […] Thinking mostly revolved around the organization and less in terms of the specific consequences of developments in the market for the organization* (interview, 3 February 2000).

The IBN project manager himself gives a cultural explanation for the focus on organizational design:

> *Everybody thinks in terms of pyramids of power. Who is the boss, who are subordinate to this person, who are the subordinates' subordinates?[…] It provides clarity to look at the organization that way. Disregarding whether such an organization also actually functions that way, pyramids of power visualize it* (interview, 6 June 2001).

The environmental changes that had triggered the top-down adaptive effort submerged into the background and so did the initial emphasis on commercial opportunities deriving from these changes (*source*: divisional board minutes).

Although the belief in segmentation as an appropriate organizing principle was shared among the members of the divisional board, the decision to actually introduce it was felt to deserve a stronger basis. In January 1996, a project organization was established to develop strategic plans for each client segment that had been defined by the initial project team. The steering committees of the project organization consisted of organization members from all layers of the division. As interviews and memos indicate, the project organization was less effective than expected. A former divisional board member described this stage of adaptation as one characterized by "chaos and obscurity". The results had rather limited impact on decision-making. However, the organizational blueprint developed at the same time would be used as a pillar of strategic actions.

Toward strategic actions

Around September 1996, the divisional board appointed six segment managers. They were put in charge of the newly created customer segments: Private Banking, Small and Medium-sized Businesses, Consumer banking, Companies & Institutions, Corporate Clients. One product segment was created, Payment Services, because of its importance to the division and the complexity of these type of services. Besides adding the segment layer, the replacement of the five regions by twenty-four districts was a primary strategic action. Just as the segment managers, the chairmen of these districts were appointed by the divisional board in an early stage to enable them to become champions of the changes that were about to take place.

The segment managers were carefully selected. They were mostly young and ambitious people, but with a track record within the company. Decision-makers felt that this new role which represented a fundamental departure from existing practices had to be occupied by people that were not too attached to these practices. They were strongly supported in this line of reasoning by the strategy consultants. The consultant directly involved in this stage says:

The choice of these people was very important, more so than the responsibilities they had. We have very much stressed this: [...] take heavyweights because then automatically the organization will start to take them seriously and this is actually much more important than the formal responsibilities. If those people add real value to the branches and know more about their segment than those branches, if they come up with new product ideas tailor made for their segments, then things will start to work (interview, 17 June 2002).

This quote indicates the importance of resources other than formal responsibilities as enablers of segment managers' tasks. Their authority within IBN would allow them to initiate valuable actions. While in this stage an attempt was made to specify segment managers' tasks and responsibilities, it took some time as well as the input of several stakeholders (e.g., the segment managers themselves) for the initial specification to be formalized and communicated throughout the division. *Profit* responsibility for the particular segments, i.e. responsibility over revenues and costs, was not assigned to the segment managers but remained within the geographic line. This showed, for example, in the fact that each segment would have representatives in districts and branches who had to report first and foremost to regional managers. Interestingly enough, the initial plan presented by the divisional board to higher-level management provided for equally shared responsibility of regional and segment managers. Corporate management rejected the notion of dual responsibility, indicating that this was likely to upset and confuse the division. According to the project manager of Segmentation in that particular stage, the reluctance of corporate decision-makers to approve of a more radical change had much to do with existing practices still being prominent in their minds:

[The new model] is difficult to imagine when you are thinking in terms of the model in place (interview, 6 June 2001).

The fact that financial performance of IBN was satisfying might well have reinforced the existing model in the minds of decision-makers.

The selection of district chairmen was also done carefully. Possession of appropriate skills and expertise was one consideration. As key actors at the geographic side, the chairmen needed to understand and be able to deal with sensitivities around the new business model. From a change management point of view, the assignments were also considered a way to create support for the new structure. Change management considerations also showed in the decision to create twenty-four districts rather than thirteen, which had been indicated as the optimal number by the project team. A smaller number would have forced decision-makers to assign regional managers to lower hierarchical levels (e.g., branch manager), a decision that they felt would seriously undermine these managers' motivation for change.

The appointment of segment and district managers signalled the beginning of adaptive dynamics below the decision-maker level. Section 4.4 will report on these dynamics. At the decision-maker level, the wish for strategic action grew stronger. A formal advice request on main actions that Segmentation would involve was presented to ING's work council[9]. The work council lodged a number of objections which delayed adaptation. However, no fundamental adjustments were made on basis of those objections. Because it was felt the adaptation process entered a new stage, the decision was made to replace the first project manager by two other project managers; one responsible for implementation of Segmentation in the regional organization and one responsible for the development of the new administrative organization. The former who had a background in IBN's branch network organization was expected to make the changes acceptable for regional managers (i.e. district & branch managers). The divisional board advocated systematic, top-down implementation of the new structure. However, strongly encouraged by the project manager responsible, the board members decided to execute two pilots. These pilots had to provide insight into the consequences of the new structure and potential pitfalls. The first pilot in early 1997, even though it was executed on paper in a single district, directly involved regional managers in the adaptation process. This event is therefore considered a bridging point between the decision-maker and organizational level. Discussions between decision-makers, regional managers, and project members which derived from the pilot and other Segmentation-related projects led to adjustments and refinements of the original blueprint. The lack of a clear blueprint and vision regarding the separation between front- and back-office which was dealt with in early 1997 exemplifies this (*source*: board meeting minutes). In the old organization, internal and external account managers' tasks were blurred. Under Segmentation, back-office activities needed to be removed from the task list of external account managers. This strategic action was expected to lead to increased sales capacity.

Discontent with the pace of adaptation, in mid 1997 the divisional board decided to replace the project manager responsible for implementing Segmentation by an external interim manager. The board furnished the manager with the assignment to implement Segmentation without further delays. The then chairman expresses his thoughts about this decision as follows:

[9] The work council represents an organization's employees. Strategic decisions are generally presented to the council which has an advisory role. The work council does not have the authority to block decisions. However, it can challenge decisions thereby delaying the adaptation process and undermining decision-makers' support within the organization.

At a certain point in time we say: this is what we want, this is where we go. And everybody agrees. But then you have to make sure that everybody goes the same way. For this purpose, I hired the interim manager, to make sure everybody would go in the same direction. It is just a matter of knowing the organization. Everybody has his own interpretation and at that point it was important that we went in that direction (interview, 18 July 2001).

Until the end of 1997, while the interim manager was developing action plans for full-scale implementation, preparations were made for the implementation of the new structure in one particular district. The purpose of having a pilot for real in addition to the one on paper was to further insight into how the plans would translate into practice. In this vein, an extensive evaluation of the learnings from this pilot were considered a key part of the exercise. In this stage, there was also a decision made about the change management trajectory. An external change management consultant was hired to accomplish the necessary cultural change. A programme was developed which contained several components directed at different stakeholder groups within the division. The programme cascaded down the division from the top, involving an increasingly wide audience.

During the first half of 1998, the pilot was executed. As it proved successful, the divisional board decided to implement the new structure in all other districts. According to the chairman, knowing when to end small-scale try-outs and move on to full-scale implementation is a matter of:

having the feeling that the risks you are taking are within certain limits. And assuming that you have the right people. At key positions you need people who can deal with that. This is just a matter of knowing the people. […] Having the guts to stick out your neck (interview, 18 July 2001).

The formal evaluation of the Segmentation project might be considered the concluding event in this adaptation process. A team consisting of organization members from various levels and units was created to assess key learnings. One of the main issues raised in the evaluation report was the lack of an integrated approach to adaptation. Attention had long been focused primarily on the administrative organization: Who would report to whom about what? In the eyes of the evaluators, this focus had retarded development of the commercial dimension. Also, delays and inefficiencies were attributed to the understatement of resources such as the information infrastructure and accommodation in the change process.

This section has shed light on dynamics of cognition and action at the decision-maker level. The following section revolves around such dynamics at the organizational level.

4.4 At the organizational level: Resources, business beliefs & recurrent actions

As was noted in the previous section, two events marked the beginning of adaptive dynamics below the decision-maker level: the assignment of segment managers and of district managers. These managers would play an key role in the new structure and it was deemed necessary that they were actively involved in planning and preparation. The participation of the key players in the adaptation process set the stage for small-scale and, subsequently, full-scale implementation. Figure 4.4 provides an overview of main events of Segmentation at the organizational level from the assignments on.

***Figure 4.4*: Main Segmentation events beyond the decision-making level**

Oct 94	*Nov 94 Dec 94 Jan 95 Feb 95*	*Mar 95 Apr 95 May 95 Jun 95 Jul 95*

Aug 95	*Sep 95*	*Oct 95 Nov 95*	*Nov 95 Dec 95*	*Jan 96*	*Feb 96 Mar 96*

Apr 96	*May 96*	*Jun 96 Jul 96*	*Aug 96*	*Sep 96 Oct 96*
				Initiatives by segment managers: frequent peer meetings & lunch meetings with board

Oct 96 Nov 96 Dec 96 Jan 97 Feb 97 Mar 97	*Apr 97*	*May 97 Jun 97 Jul 97*
Segment managers develop business plans for their particular segment in cooperation with strategy consultancy firm: mapping out existing IBN customer bases, exploring market opportunities, determining goals and strategies. Tasks and responsibilities considered necessary for realizing the business plan are incorporated	Pilot on paper in one district	Development of implementation plans by district managers; preparation of implementation by segment managers: time schedules, mapping out necessary resources, HR trajectories (selection, training)

Aug 97 Sep 97 Oct 97	*Nov 97 Dec 97*	*Jan 98 Feb 98 Mar 98*	*Apr 98*
Continued Development of implementation plans by district managers; preparation of implementation by segment managers: time schedules, mapping out necessary resources, HR trajectories (selection, training)	Finalizing assignments of customers to segments	Pilot for real in one district	

May 98 Jun 98	*Jul 98 Aug 98 Sep 98 Oct 98*	*Nov 98 – Sep 00*
Area managers go through change management course; branch managers go through change management course	Implementation of new rules & other resources in all districts; ad hoc initiatives from district management to take change management effort a step further by linking personal change experience to intended behavior	

Sources: interviews; minutes of divisional board meetings; proposals to work council; reports

Segment managers

The segment managers had to start from scratch. Not only did they need to be introduced to the Segmentation plans, which had not yet been formally communicated to the division, the managers also had to build their own segment management units. Getting acquainted with the plans, some segment managers raised questions. The dual responsibility concept inherent in the matrix structure proposal was one of their main worries. However, as one of the then segment managers recalls, decision-makers held on to their plans:

> *It was clearly fixed. […] We were conceived of as the young, eager guys who thought they knew it better. So we were told off: "this is the way we are going to do it, if you don't like it, too bad"* (interview, 19 June 2002).

The first thing the segment managers did was pulling together a team of people for creating the segment business plans. The formation of these segment teams signalled a period of strategy-making at the segment level. Key issues were (1) giving substance to the notion of segmentation per segment; (2) developing plans for increasing effectiveness of the sales organization; and (3) planning the use of different distribution channels to lower costs and improve customer focus In their effort, the segment managers were supported by the strategy consultancy firm that had been involved in Segmentation from the beginning. Depending on the preexistence of a segment in IBN's customer domain before Segmentation, segment strategies had to be evaluated and revised or developed from nil. Product-Market Combinations (PMCs) had to be defined. Client bases were mapped out. Customer marketing databases were designed and built. An overarching financial information system lacked. This forced segment managers to think creatively about how to assemble the financial data necessary for their units to operate.

Segment managers had considerable discretion in this stage of adaptation. This made it possible for them to shape the segment business plans according to their perceptions of market dynamics and business beliefs. For example, the Private Banking business plan focused on entrepreneurs as the key target market for IBN. An examination of market dynamics (e.g., ABN Amro as established private banker for 'old' money; private banking market potential for 'new' money) and the recognition of ING's image as the bank for entrepreneurs had fueled the segment manager's belief in this strategy. By approaching the target market with young, highly educated bankers, IBN would be able to differentiate itself from established competitors. Bankers were selected and training courses were developed for them to get a sense of the strategy, to understand the intended customer approach and the rationale behind it. The Private Banking segment manager aimed at introducing a performance-based reward system which would support his strategy. However, this initiative was aborted by the divisional board as such reward systems at that time were still against industry agreements.

In their efforts to give substance to segmentation, the segment managers faced some difficulties. Primary in this respect were misfits between commercial goals and strategies and the back-office infrastructure present within IBN. One of the then segment managers indicates how this caused problems:

> *Our operations could not handle what we sold. So we often sold much prettier things than we could actually handle operationally* (interview, 19 June 2002).

Financial information systems were still geography-based and customer information was incomplete. There were two main ways in which segment managers dealt with the resource deficiencies. First, they immediately started to build appropriate infrastructures with the means directly available to them: people, money, knowledge. And secondly, they challenged and stretched existing limits within IBN by focusing on market opportunities rather than resource constraints. As one of them explains:

> *If you let yourself be constrained by what is possible, you will never get there. Then nothing can be done. […] If you let yourself be constrained by that, you will also never get a picture of what the market wants from you* (interview, 19 June 2002).

Initiatives from the segment managers spurred several changes in back-office processes and advances in financial and market information systems. The implementation of the necessary operational infrastructure for selling tailor-made financial products for private banking clients exemplifies this.

District managers

A key decision in the Segmentation project was to reshuffle IBN's branch network organization. The five regions were replaced by twenty-four districts to improve customer contact. Responsibilities were transferred from local branches to area and district offices to bundle specialisms. By pooling expertise, its use and further extension were expected to be optimized. The district chairmen played an important role in the preparation and management of change in their particular districts. They were appointed in a relatively early stage to allow them to do so. Together with their management teams, the chairmen developed implementation plans. These plans contained time lines, the actions considered, and the planned results. The chairman of the pilot district –the one in which the new structure was actually implemented- was in this respect a bit of an exception. The implementation in his district was used to adjust and refine the plans and to test their sustainability. When he and his team, supported by some HQ project team members, started the pilot there was still a lot to be decided on. The segments had been defined, customers had been assigned to them, and the various roles to give substance to segmentation had been mapped out as well. However:

> *the actual implementation: How are the different segments going to be served? How do you deal with them? How are employees going to act? [...] this had not been specified. There was a conceptualization, but this had not yet been translated into practice* (source: pilot district manager, interview, 13 June 2001).

A steering committee was created, consisting of district managers and some other key actors. Underneath this committee, a number of task teams worked on various elements (e.g., accommodation, IT, personnel). Employees from different disciplines and layers participated in these task teams. The preparation stage confronted district managers with the need for practical decisions. When concerning fundamental issues, information was fed back to decision-makers at the divisional headquarters. For other issues, there was considerable discretion for district managers to design work processes. Making this a team effort helped the district manager to create support and a sense of ownership among his managers and employees. As he explains:

> *The positive thing about it is that you work on it together and when you then implement it, you have the feeling: this is our product, we support this 100%* (interview, 13 June 2001).

Actual implementation in the pilot district took place during the first quarter of 1998. One of the concrete strategic actions concerned the transfer of customers from branches to area and district offices. This happened gradually. Another concrete action was the creation of a risk management unit at the district level. This was accompanied by an extension of district management's decisional power. According to the chairman of the pilot district, this extension of responsibilities combined with the necessary expertise has led to faster decision-making in many cases. This is an example of how organizational behavior has changed due to the implementation of new rules. As the example shows, in order for this change to happen, the appropriate resources had to be in place (i.e. expertise; decisional power).

After evaluation of the pilot results, full-scale implementation was approved of. Generally, incremental changes continued to take place after implementation in a district had been formally concluded. From learnings derived adjustments in new rules and infrastructure. Exchange of thoughts and experiences between districts was limited. As one of the district chairmen argues, this is indicative of the culture within IBN's branch network:

It is the attitude of the chairmen: "we can do it ourselves, we are well able". So using each other's experiences is minimal (interview, 13 June 2001).

Beyond segment and district management levels

The case material clearly shows that middle managers played a key role in the Segmentation trajectory. These managers (1) gave substance to adaptation by extending and refining the plans made by decision-makers; and (2) were catalysts of change in the sense that they helped to build the necessary resources and climate for organization members to alter their behavior. Segment managers developed beliefs on how IBN could succeed in their particular segments and triggered changes in infrastructure to allow for recurrent actions in accordance with these beliefs. District managers used their leadership in preparing for change and implementation to tailor rules, motivate people for change, and feed information back to decision-makers.

The interviews and documents provide various indications of changes in recurrent actions of organization members. For example, the clear distinction between internal and external account managers that Segmentation entailed has resulted in a stronger customer focus in the front-office and higher efficiency in the back-office. The knowledge pools at district and divisional level have improved the service level for wholesale clients. However, the evidence also reveals some barriers in the way of change. The lack of a financial information system matching the new structure has posed problems for managers across the division trying to monitor performance. The embeddedness of branch managers in their local communities in some instances interfered with the new division of responsibilities.

Several strategic projects have been initiated in the past five years which build on the premises of the Segmentation project. For example, the project Multichanneling is focused on how IBN can deploy the various distribution channels (i.e. Internet, call centers, direct mail, direct service) in an optimal way. A key factor in the vision that announced the Segmentation project, the use of technology became more of a side issue during the change process. The Multichanneling project signalled decision-makers' commitment to the issue after roles and responsibilities had been dealt with. Furthermore, the number of districts has been reduced considerably. Also, segmentation has been taken a step further with a separation along the lines of wholesale, retail, and intermediary functions (*Financieele Dagblad*, 19 April 2002). Some advances have been made in financial and marketing information systems.

The years following the implementation of Segmentation have shown a significant increase in IBN's profits. This has been attributed to exogenous factors such as economic growth but also to the strategic actions spurred by Segmentation. From interviews derives a positive evaluation of the adaptation process; a series of changes which have improved IBN's reputation in the market through pooled expertise and a more effective sales force.

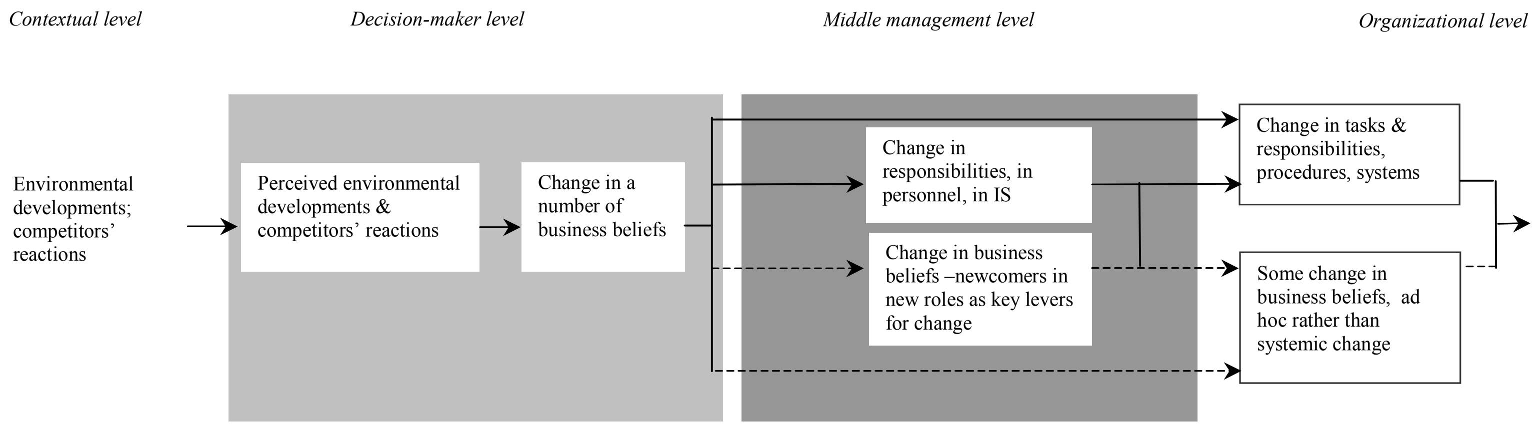
4.5 Conclusion

In the case study reported in this chapter, the theoretical framework proved a valuable tool for understanding how adaptation took place. Figure 4.5 visualizes the Segmentation process in terms of the framework. There was not one particular environmental event or development that triggered the initiation of the Segmentation project. More generally, the changing nature of the Dutch banking landscape and various developments abroad shaped decision-makers' thinking in this respect. Technological advances appeared as one key factor of consideration in the early stages of the change project. Another was the changing customer attitude. The visits of IBN top management and staff to financial services organizations abroad and industry insights from a top-tier strategy consultancy firm were key in the development of decision-makers' perceptions. Through what decision-makers notified and interpreted, some of their core business beliefs changed. Seeing other industry constituents change their organizational structure from geography/product-based to customer-based, and being aware of a devaluation of branch networks in the industry, the divisional board increasingly recognized the obsolescence of some of their basic beliefs about IBN's structure and strategy. New business beliefs led them to initiate a number of strategic actions. The actions aimed at the middle management level mostly concerned changes in roles and responsibilities. The appointment of segment and district managers had an significant impact on adaptation in the sense that these managers initiated spin-off strategic actions (segment managers) and helped to implement strategic actions initiated by the divisional board (district managers). These new middle management leaders were furnished with certain means to conduct their role (i.e. resources). However, from the study also appears that various necessary means were lacking and that some key changes depended on middle managers' creativity and persistance. At the same time, not having disposal of supporting means fueled resistance among some middle managers less keen on big changes.

In the Segmentation project, there was not so much of a concerted effort by top divisional management to change middle managers' business beliefs. Only toward the end of the trajectory a formal change management process was started. The emergence of new business beliefs at the middle management level was most evident among segment managers. These managers who had to build up an entirely new part of the IBN organization had been selected carefully to match the requirements. They generally were highly motivated to achieve success and had a strong market sense. Their mindsets were aligned with the new business beliefs that had arised at the divisional level. The situation for district managers was clearly different. Most of these managers came from positions within the branch network, representing the 'old' organization. They were assigned the task of championing the organizational changes in the branch network while having to adjust business beliefs themselves at the same time. The fact that the change management process took place in a late stage left them little time to unlearn old beliefs and adopt the new ones.

Besides strategic actions aimed specifically at the middle management level, decision-makers were involved in actions focused on the organizational level. These actions affected (1) divisional headquarters; and/or (2) the divisional branch network. The bulk of the decisions from the top regarded formal tasks & responsibilities and, consequently, procedures and formal systems. The subsequent actions were supplemented by actions initiated by middle managers. As these lower-level actions were designed for a particular segment or district, they were more specific and as such gave substance to the higher-level decisions and actions. As was the case at the middle management level, the deeper structure, i.e. business beliefs, received relatively little explicit attention. Change in organizational level business beliefs occurred in an ad hoc rather than systemic manner. Formal communication of the plans to the organization, as well as any formal change preparation happened in a late stage. The strategic actions undertaken at the top and middle management levels resulted in some change in recurrent action within the IBN organization. However, when comparing the vision statement presented in the Fall of 1994, and the original plan of the project team presented in September 1995 to the short term effects of the Segmentation process, it is clear that not all the initial intentions were translated into organizational practice. The fact that change projects have been pursued since, representing extensions of the changes made under the flag of Segmentation, indicates decision-makers' appreciation of the overall path of change. Considering the Segmentation process as part of a more encompassing series of strategic change events signals the incremental character of change within this division. Zooming in on Segmentation, a number of occasions in which partial solutions were chosen over more far-reaching ones can be considered one indication of the incremental nature of the changes. An example is the decision of the divisional board to implement a matrix structure while keeping profit responsibility at the exclusive discretion of district managers.

Figure 4.5: **The Segmentation process in terms of the integrative framework**



in the next chapter, a second adaptation process is examined. This process took place around the same time as Segmentation but within the corporate banking division of Citicorp, the American financial conglomerate nowadays known as Citigroup. The study of a U.S. company was expected to yield supplementary data, thence deepening insight into cross-level dynamics of cognition and action in times of adaptation.

CHAPTER 5
THE CASE OF CITIBANK

Citibank is an operating subsidiary of Citigroup, the world's largest financial services provider[10]*. In the mid 1990s, when Citigroup was still named Citicorp and the firm had not been merged with Travelers yet, a series of drastic changes took place in the three main banking units: the consumer bank, the corporate bank in Japan, Europe, and North America (JENA), and the corporate bank in the emergent markets. In response to the severe performance crisis that had hit Citibank in the late 1980s and environmental changes in the banking industry, a new direction was formulated for the bank as a whole. The next step was the development of new strategies for each of the three businesses. In the corporate bank in JENA, a new business model was created and implemented between early 1995 and late 1996. The outcome of this adaptation process, the Global Relationship Bank, still exists today within Citigroup's Corporate and Investment Bank as "a leading provider of financial services to top-tier multinational clients worldwide"*[11]*. This chapter revolves around the creation of the GRB. A similar structure to the one used in chapter 4 is applied. Starting with a brief introduction of the case, attention is then directed at the various dimensions of adaptation. A wrap-up of key findings completes the chapter.*

5.1 Introducing the case

Citicorp first incorporated in 1812 as the City bank of New York. Back then, the bank functioned as a private treasury for merchants and as a dealer in coal, metal, sugar, and cotton. Over the years, it has developed into one of the most important money center banks in the U.S. with an international banking network spanning from London to Singapore. The brand name 'Citibank' was adopted in 1955 following the acquisition of First National Bank of New York. Before the merger with Travelers Group in 1998, Citibank, N.A. (for National Association) was the largest subsidiary of the bank holding company Citicorp. The merger created the world's largest universal bank with operations in over 100 countries, operating under the name 'Citigroup'. Key drivers for melding together Citicorp and Travelers Group were synergy through cross-selling, economies of scale, and geographic diversification (Citigroup Annual Report 1998). The emerging globe-girdling

[10] Source: Fortune, 15 April 2002
[11] Source: www.citigroup.com

conglomerate employed 268.000 employees in 2001, attaining $112 billion in 2001 revenues and $14,1 billion in profits ranking number seven in the Fortune 500. In 2001, the consumer business accounted for approximately 50 per cent of Citigroup's core income while corporate and investment banking activities yielded about 40 per cent (before hits like restructuring and merger-related charges). The remaining income derived from investment management and private banking (around 10 per cent). In terms of geography, North American business is making up for a considerable part of the earnings. This is reflected in the distribution of employees over the regions; in 2001 Citigroup employed 145.000 full time and 4.000 part time employees in the United States and 123.000 employees outside. Before the merger with Travelers, earning were more evenly distributed across regions. Due to the broad range of financial services Citigroup offers to its retail and wholesale clients, the company has been labeled a diversified financial. As such, Citigroup competes with American companies like General Electric, Fannie Mae, Freddie Mac, American Express, JP Morgan Chase, and Capital One Financial (*Fortune*, 15 April 2002).

In the late 1980s, Citibank was reeling from one the biggest crises in its two hundred year history. The company's corporate bank wallowed in debt due to default on loans to lesser developed countries (LDCs), bad loans on commercial real estate and on highly-leveraged buy-outs. The crisis was a severe one. A congressman even referred to Citicorp as being "technically insolvent" and "struggling to survive" (quoted in Barth, Brumbaugh and Litan, 1992). By 1997, however, the bank's balance sheet had significantly strengthened and the company was one of the most profitable banks in the U.S. Within the corporate bank, several major adaptations of the strategy underlay this resurrection. Table 5.1 summarizes these changes as well as some preceding actions that influenced the change path.

***Table 5.1*: Strategic actions affecting Citibank's corporate bank**

Time	**Strategic actions**
1982	Diversification into investment activities: creation of worldwide Capital Markets Group [12]
1985 [Europe]	The European Bank initiative: a strategy based on establishing a preeminent position with selected customers and product markets across the region, creation of informal regional units focused on key products and customer groups. So strategy increasingly toward geographic units, product units and customer units but structure trails significantly behind this vision. Organization still balkanized and little dialogue across product, customer, geography staff.[13]
1988-1989 [Europe]	The Unique European bank initiative: creating a common vision for all corporate banking activities in Europe. The vision described in increasing detail the need for a three-dimensional internal partnership. Structure: previously informal regional product and customer unints were formalized overlaying the geographic affiliates. Establishment of European Policy Committee comprised of geographic, customer and product unit executives to promote behavioral changes. Indication of further required changes including modifying management systems to support decision-making and standardizing administrative activities.
January 1990	Global reorganization: merger of Institutional and Investment Banks; division of worldwide corporate banking activities into developed (JENA) and developing markets (IBF)
August 1990 [JENA]	JENA undergoes further reorganization: elimination of two management layers (division and group level); installing a structure based on a single sector executive, eight senior coordinators, and fifty-three activity centers (trading units, customer contact units, sales units, product units). Task forces are formed to reevaluate measurement and evaluation systems and culture.
Early 1992 [JENA]	New executives are appointed in charge of JENA. This reestablishes the regional structure although the interdependent activity centers remain.
1992-1994	A strategy emerges: to be the premier provider of cross-border financial services.

[12] The new unit resulted in parallel affiliates in major national markets, duplicating the traditional geographic-based operating structure –which was of course not the intention but showed the strong embedded power structure and culture of the traditional structure.
[13] Adjustments in structure started to take place but largely through informal mechanisms. There was a general recognition of the emerging challenges but the firm lacked information to enable the development of specific strategic responses.

[JENA]	Reorganization of the formal management structure, reallocation of specialized roles across region, relocation of resources (concentration of product unit staff and resources and operational supporting units in London and Frankfurt –concentrating product units to build expertise. Changes in performance planning, measurement and evaluation –no longer Management Profit Reports representing income statements for each geographic unit but grids with each country reporting by both customer and product dimensions. Emphasis on teamwork culture. Formation of cross-functional senior management committees.
1993 [JENA]	Introduction of a new measurement and evaluation system (Citibank began to evaluate its system in the mid 1980s)
1995	Corporate-wide launch of Balanced Business Scorecard
January 1996 [JENA]	Global Relationship Bank: launch of a new strategy for corporate banking JENA - serving global customers globally.
1997 [JENA]	Revision of corporate banking strategy developed in 1995: formation of Global Markets Unit, bringing together corporate finance, capital markets and cross-border financing units. Head reports to both GRB and EM. Covered institutional investors. Brought product specialists together in one unit.

Source: Malnight (1996)

This chapter pivots on the creation of a business model known as the Global Relationship Bank (GRB) for corporate banking activities aimed at clients primarily headquartered in Japan, Europe and North America (JENA). Several organizational precursors guided the development of the GRB model, the most prominent one being the World Corporation Group (WCG). The WCG, which had existed in the corporate bank since the mid 1970s, was built on quite a unique concept of serving the international financial needs of a select set of multinational clients. This concept was expanded by means of the GRB business model. The GRB case is a clear example of top-down adaptation to a changed environment, which makes it particularly suited for exploring the theoretical framework. In the JENA region, countries had traditionally been self-sufficient in the sense that activities in one country were conducted independently from activities within other countries, even when serving subsidiaries of the same company. With the introduction of the GRB in January 1996, emphasis shifted from geography to customer as the primary organizing principle. Citibank vice chairman Onno Ruding describes the strategy underlying the GRB as follows:

> *Citibank's strategy is to focus on customers who value our global network in the broadest sense. With these customers, our global capabilities give us competitive advantage. We must deliver high-quality, innovative products that address customers' ever-changing needs. To a significant extent, our developed economies business, especially in the U.S.A., serves as a basis from which successful products can be developed and transferred to other geographic markets.* (Baron and Besanko, 2001: 16).

Before the GRB business model was implemented, the corporate bank in JENA consisted of four parts: European Global Finance, North America Global Finance, Japan Global Finance, and the WCG. The WCG overlaid the geographical units, focusing on around 230 global corporate customers. Their global operations entailed a need for banking and capital market services in many countries as well as for cross-border transactions. The WCG provided these financial services for corporations primarily headquartered in the JENA region. When the unit was first formed in the mid 1970s, its product line was relatively narrow. The key aim of the WCG was to mobilize resources that Citibank had to offer globally on the client's behalf. One of the ways to do so was by creating teams of global and local relationship managers which served particular clients. This way of organizing around customers led to a customer base generally characterized by well-established, long-term relationships. While the range of products increased over time, the aim of the WCG remained basically the same (*source*: company document). Building on the success of the WCG, regional management had started to carry through similar changes in strategy and structure for European clients. In North America and Japan, a focus on domestic revenues prevailed. With the implementation of the GRB, these regions were also involved in the aim for a position as the lead international bank of a select set of global customers. Exhibit 5.1 offers a profile of the corporate bank in JENA as it exists nowadays.

***Exhibit 5.1*: Profile of the corporate bank in JENA**

Citibank's corporate bank in JENA

The Global Relationship Bank is a provider of financial services to multinational companies in over 100 countries. Global Relationship bankers are resident in 19 developed countries. In addition, GRB clients are served by relationship bankers working in emerging markets. The division is organized primarily along industry lines. Currently, the industry groups include: automotive & industrials; aviation; banks and securities; branded consumer & retail; chemicals, pharmaceuticals & forest products; electronics; energy & mining; insurance & investments; media & communication; power; shipping & logistics; and technology. The GRB business model is believed to "yield a capability which draws on a deep understanding of industry trends, as well as market knowledge based on a local presence" (Annual Report 2001). Four broad categories of financial services are offered by the GRB: capital raising, structured/corporate finance, risk management, and transaction services.

The strategic importance of the Global Relationship Bank for Citigroup is quite difficult to assess rigorously as no data are published for this division separately. The results of the GRB are presented as part of the Corporate and Investment Bank (CIB) which together with Emerging Markets and Global Transaction Services makes up Citigroup's global corporate bank. To give an indication of the strategic importance of the CIB, Table 5.2 summarizes the core income figures for Citigroup in total, the global corporate bank in total, and the CIB.

***Table 5.2*: Core income figures 2000-2001**

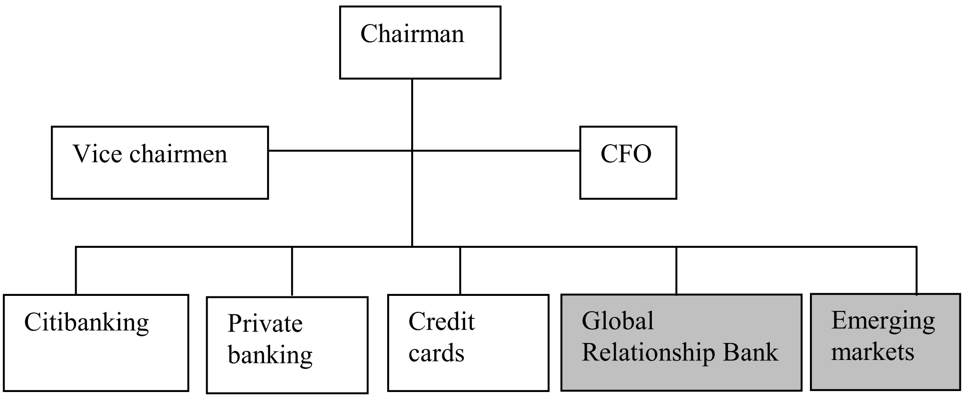
Core income (mil $)	2000	2001
Citigroup	8,711	9,997
Global Corporate Bank	2,226	2,885
CIB	823	1,241

Source: Citigroup Annual Report 2001

In 2001, compared with 2000, the stake in Citigroup's core income of the Corporate and Investment Bank has increased from nine to twelve percent. Besides the income it generates for Citigroup, the GRB is of strategic importance because it allows to establish positions in new markets in a relatively low risk manner. In the 1997 Annual Report is explained how: "Citibank usually enters a country to serve global customers, providing them with cash management, short-term loans, and foreign exchange services. As the market begins to develop, we offer trade services, project finance, and fixed-income issuance and trading. As development progresses, securities custody, loan syndications and derivatives services are introduced. At this stage, services for locally headquartered companies become significant and consumer banking services are introduced" (Citicorp Annual Report 1997: 20).

To deal with the performance crisis, a strategy was developed for the emerging markets (IBF) as well. The main objective was to become an embedded bank in these markets. Such a position would allow Citibank to serve the local needs of its global customers as well as of domestic companies that were expected to become increasingly international and/or dominate local geographic markets. Figure 5.1 shows the position of the corporate bank (shaded units) within the overall company structure at the end of implementation of both the JENA and IBF strategies in 1996.

Figure 5.1: **Position of the corporate bank within Citicorp (1996)**



Source: Baron and Besanko (2001)

5.2 At the contextual level: Environmental characteristics

At the turn of the twentieth century, commercial banks held substantial economic power in the United States. As Woodrow Wilson argued in 1911, "the great monopoly in this country is the money monopoly. A great industrial nation is controlled by its system of credit" (quoted in Brandeis, 1914: 1). Board interlocks were used as a means of domination; bankers occupying directorates were in the position to control the supply of new money. By the early 1990s, pronouncements about the extinction of commercial banks were commonplace. The dissolution of their core business, corporate lending, had seduced the banks into all kind of financial folly, especially high-risk loans to lesser developed countries (LDCs) and commercial property developers. To understand how commercial banks got into and dealt with this situation, an overview of primary environmental developments between 1970 and 2000 is provided in Exhibit 5.2. A shift in strategic focus has been mentioned as one of the reponses to the transformation of U.S.

banking from a highly regulated, stable environment to a more dynamic one (James and Houston, 1995). The industry frame has been created in the same way as was done for the Dutch banking landscape (see Chapter 4).

***Exhibit 5.2*: The changing face of the U.S. banking industry**

Environmental changes

Indications of an industry transformation in U.S. banking are many. As was the case in chapter 4, the discussion centers on economic, political & regulatory, technological, competitive, and business factors.

Economy

In the late 1970s and the early 1980s inflation and interest rates kept mounting up. This had a significant impact on the financial services markets: demand for nonbanking financial services grew substantially, creating an opportunity for new suppliers of financial services to enter markets in which they had not previously been competitive. The economic crisis also resulted in a sharp reduction of freedom to practice self-regulation. For the savings & loan industry competitive pressures shifted dramatically due to the interest rate volatility and threatened this population with extinction (Haveman, 1992).

Policy & regulation

The U.S. apply a capital market-based system, in which corporations rely on relatively dispersed securities issuance for capital and commercial banks provide short-term debt financing stands in contrast with the credit-based systems more characteristic of many continental European economies. Corporate control in the former system tends to be exercised through the takeover market on the basis of widely available public information, with banks' function limited mainly to advising and financing bids or defensive restructurings. The role of the government is normally arm's length in nature, with a focus on setting ground-rules. In contrast, the credit- or bank-based system centers on close bank-industry relationships, with the role of banks carrying well beyond credit-extension and monitoring to share ownership, share voting and board memberships. In such systems, capital markets tend to be poorly developed (Spiegel, Gart and Gart, 1996).
The degree to which U.S. financial services are both politicized and fragmented due to the federal system versus individual states and the separation of power at the federal level is quite unique. There is wide range of competing institutional factors playing overlapping and competing roles in the regulatory system. The U.S. financial services landscape is governed by several regulatory agencies, some of which are federal and some of which are state agencies. The main agencies are: the Federal Reserve System, the Comptroller of the Currency, the Federal Deposit Insurance Corporation (FDIC), state banking commissions,

the Office of Thrift Supervision, the National Credit Union Administrator (NCUA) and the National Credit Union Share Insurance Fund (NCUSIF). In the 1920s and the 1930s, a number of regulations were implemented by these agencies that severely restricted bank managers in their strategic choices. The enactment of the McFadden Act in 1927 put in place a barrier against operating bank branches in more than one state. The Glass-Steagall Act of 1933 entailed a restriction on asset holdings, preventing commercial bank affiliates from dealing in securities. Owning stock in industrial corporations was also restricted. During the 1970s and 1980s the U.S. antitrust and anti-branching laws discouraged or prohibited mergers of large banks and the creation of nationwide banks while in Europe such developments did take place. Higher regulatory costs and geographic restrictions made it additionally difficult for U.S. banks to compete effectively with foreign banks. Three important pieces of legislation were passed between 1978 and 1982 that loosened regulatory constraints on the financial services sector (Table 5.3). These acts created a multitude of new markets, providing incumbants with ample opportunities to expand beyond their original domain. At the same time, this was a necessity as returns from activities which had traditionally been the exclusive domains of banks declined. Deregulation has continued since (Berger, Kashyap and Scalise, 1995). The passage of federal preemption of interstate banking barriers to interstate ownership of banks by bank holding companies in the early 1990s exemplified congressional belief that the U.S. banking industry needed aid to build strength. There are also indications, however, of reregulation as several laws and regulations have emerged that reach deep into banking organizations. Furthermore, the legislation repealed the Glass-Steagall Act, thus allowing banks to enter the insurance and securities businesses. Supporters predicted that the measure would permit U.S.banks to diversify and compete more effectively on an international scale.

***Table 5.3*: Key legislative contributions to deregulation of U.S. financial services**
Financial Institutions Regulatory and Interest Rate Act (1978):
Implications: Created the Federal Financial Institutions Examination Council. Established limits and reporting requirements for bank insider transactions. Created major statutory provisions regarding electronic fund transfers.

Depository Institutions Deregulation and Monetary Control Act (1980)
Implications: Began the phase-out of interest rate ceilings on deposits. Established the Depository Institutions Deregulation Committee. Granted new powers to thrift institutions. Raised the deposit insurance ceiling to $100.000. This Act applied uniform reserve requirements to all depository institutions with certain type of accounts and required reports from these institutions.

Depository Institutions Act (also known as Garn-St. Germain) (1982)
Implications: Expanded FDIC powers to assist troubled banks, permitted in-state and out-of-state acquisitions of failing banks and thrifts. Established the Net Worth Certificate Program. Expanded powers of thrift institutions.

Sources: Klebaner (1990); Munn and Garcia (1973)

Technology
Banking has become an increasingly technology-driven business. Technological advancements have not just changed how banks and securities firms do business but also what business they are in. Online distribution has exposed the commodity nature of many financial products and shifted power to consumers. Where banks and securities firms once served as intermediaries with special access to information and markets, their clients now enjoy the same access. Inexpensive information on company credit helped the commercial paper market develop and grow which has led to a decline in the importance of banks as commercial lenders. Technological change has also increased the speed with which information is processed, decreasing firms' time buffers and thus squeezing their profits. On the other side, improved technology has set the stage for a decrease in operating costs and improved information systems to boost cross-selling activities (Berger et al., 1995). Rapid advances in computer and communications technology have led to the development of new bank services (e.g., ATM machines, internet banking) and new financial instruments (e.g., derivative securities) (Wheelock and Wilson, 1999).

Competitive dynamics
Economic, political, regulatory, and technological developments have significantly altered the banking industry structure. A big shake-out and numerous mergers reshaped the identities of most of the remaining important players. The number of commercial banks declined from 12,463 in 1979 to 7,926 in 1994 and loans from U.S. banks dropped from 20.5 to 14.5 as a percentage of corporate debt among nonfinancial firms over the same period. The centrality of banks significantly deminished as executives of major corporations joined bank boards at a substantially lower rate (Davis and Mizruchi, 1999). The late 1980s showed an unprecedented frequency of bank failures with a peak of 206 failures in 1989. A major part of these failures was brought about by the collapse of the savings and loan industry due to huge loan losses to less developed countries (LDCs), highly leveraged borrowers, and commercial real estate investors. Changed regulatory and technological conditions opened a variety of alternative methods of financing for U.S. corporations and alternative institutions in which households could place their savings. From the 1980s on, banks no longer monopolized the ranks of the industry giants. Nonbanks were entering the banking realm from all sides. By the mid 1990s, the largest

American commercial lender and leaser was not a bank but GE Capital which could provide complementary management services to corporations to help prevent loans from going bad (Davis and Mizruchi, 1999). IBM has become deeply involved in home-banking and electronic payment systems and AT&T has started issuing credit cards. During the early and mid 1990s, Ford Motor made more money as a banker than as a car manufacturer. U.S. commercial banks have not been operating under the same conditions as their nonbank counterparts. What made these corporations rugged competitors is their top credit ratings, usually far superior to that of the banks, which have enabled them to raise capital for expansion at low cost, and under few regulatory restraints. Moreover, during the 1980s a number of regional and large community banks had begun to develop into superregional powerhouses. This was possible due to lowered regulatory barriers to operating across states. Well-capitalized regional banks, with limited LDC exposure and heavily leveraged loans on the books, were able to take advantage of the weakened position of other regional and community banks to grow at a rapid pace. Superregional players have combined a community bank attitude and delivery systems with the breadth of product line and sophistication of service associated with large banks which has shown to be a competitive advantage (Spiegel et al., 1996). In the 1990s, a wave of mergers across industry lines has unfolded to create one-stop financial services conglomerates. However, the image of a few financial institutions exercising a chokehold on flows of capital still seems remote today.

Business practices

Historically, banks were perceived as solid and safe institutions. When the pursuit of riskier accounts in the 1980s led to large increases in charge-offs due to uncollectable loans, banks' ability to deal with changed environmental conditions became increasingly questioned. In the late 1980s and early 1990s, the widespread recognition of the industry problems created a banking climate more receptive to framebreaking change. Old assumptions about financial services offerings were reassessed and entirely new models were being fashioned. The performance crisis unleashed a series of efficiency and effectiveness improvements which left the remaining financial services providers with substantially different strategies and structures. Against the expectations of many, bank profits rebounded in the mid 1990s. The upturn resulted largely from a shift away from pursuing revenues from lending activities and toward fee-based business (e.g., securities underwriting, advisory work, cash management). Bank management recognized that relying on old-fashioned large corporate lending as the major source of profitability was a thing of the past. By 1995, fee-based business counted for most of the operating revenues of banks such as Citicorp and First Chicago. To the extent allowed by law, commercial banks were metamorphosing into universal banks. The move toward more profitable off-balance-sheet activities was most evident among the money center banks that were the traditional lenders to large corporations. Deregulation enabled both money center and (super)regional banks to become more universal in scope and engage in investment banking activities, as was already common in continental Europe. U.S. banks have transformed into 'relationship' banks in which the development and maintenance of relationships with corporate clients is emphasized (James and Houston, 1996). Furthermore, shareholder value, a concept which has only quite recently been adopted by Dutch bank managers as a primary goal, has been leading for years in the U.S.

The GRB was designed for a specific organizational unit: the corporate bank serving clients headquartered in the JENA region. However, the efforts behind the creation of the GRB stretch beyond the divisional level to include corporate-level thinking and acting. The analysis of cognition-action dynamics at the decision-maker level presented in the next section therefore comprises the contributions of both divisional and corporate decision-makers.

5.3 At the decision-maker level: Perceptions, business beliefs & strategic actions

Acknowledging the pressing need for realignment in the late 1980s, Citicorp executives concentrated first on short-term corrective measures to reduce costs and strengthen the corporation's capital base. In 1991 and 1992 a five point plan was executed which quickly improved the efficiency ratio and increased capital to a level in excess of regulatory guidelines (over $ 20 billion). The plan also stated the intention of building on the strengths of the core businesses and maintaining a strong customer focus. With the emergency plan in place, the next step was the development of a clear direction for the company. Being confronted with the immense problems at the corporate side, top management had been thinking about what to do with this franchise. John Reed, who had become CEO of Citicorp in 1984 after a career in the company's consumer bank, had worked on understanding the nature of the corporate banking business. In a 1990 interview in HBR, Reed compares corporate banking with the medical profession: professional competence sits down low in the organization, with the people who deal with customers (the doctors, the bankers). Letting these people run the organization would result in chaos. Rather, corporate bankers should be busy developing new products: "Good corporate bankers are walking product development departments". The CEO had strong beliefs about the key strengths of his company: "Our most important advantage is our globality. […] This global quality struck me as soon as I joined the bank in 1965" (Tichy and Charan, 1990).

How it started: Corporate managers' perceived need for change

Seeing the intensified competition in investment banking and in middle-market commercial banking, especially in the U.S., top management decided against these conventional options. While a real vision of what the corporate business should be still lacked in 1990, executives were already convinced that the division would only succeed if organization members could collaborate across borders and disciplines. Japan, Europe, and North America had become increasingly interlinked which, in the minds of the executives, had made it a truly global market. To eliminate the "psychological notion" of being a geographically organized corporate bank, a new structure and management approach were introduced in JENA in August 1990. Fifty global activity centers for trading, customer contact, placing, and products were created that had to collaborate extensively. Also, division and group layers of management were eliminated and, instead, a single executive was made responsible for the JENA business. The next step was the formulation of a direction for the company, which was summarized in seven key points (the so called Business Directions) in the 1994 annual report. With regard to the JENA corporate bank, the following was stated in the annual report:

> *We will build on our banking business in North America, Europe and Japan, but shift emphasis to those customers, products, and capital market activities that are global rather than domestic in their fundamental orientation.*

Offering multinationals the products and services they needed for organizing their international operations would allow Citibank to make optimal use of its global reach. Executives were come to believe that the existing business model squandered the competitive advantage of the bank's extensive international operations in a time of globalization across industries. By focusing on those customers who valued Citicorp for its globality, the JENA region could function as an engine for delivering products and services in developing countries. Relationships could be build around the financial needs originating from international activities. There was a strong sense that a global angle would allow for insulation of the corporate bank from intensified competition and low margins in JENA. With the memory of the crisis fresh in mind, this was an important consideration.

The Business Directions implied a radical departure from long-lived practices within Citicorp. Top management was well aware of this. A senior executive who was closely involved in this stage of change expresses the general feeling among top managers as follows:

> *This has always been a company grown up by letting strategies happen out there and holding people to account but everything came out of the ground in this*

> *company. Walter Wriston did not decide to have a credit card. These things grew. For the first time, we are creating a top-down vision and a top-down strategy for the company* (interview, 1 June 2001).

According to some critics within and without the organization, corporate managers should have created a sense of direction for the corporate bank sooner. The CEO ascribed his late intervention to the lack of a perceived need for action:

> *When I took over in 1984, the units that we now call JENA had operating earnings of $ 380 million. Last year, they had operating earnings of $ 719 million, which seemed like great progress. As I started sensing problems, I started getting involved, but I was slow off the mark* (in Tichy and Charan, 1990: 143).

The proclamation of the new direction for the JENA corporate bank in the 1994 annual report can be considered a formal starting point of the GRB adaptation process. Figure 5.2 provides a chronological representation of consecutive adaptive events at the decision-maker level. As with the Segmentation overview, key events were extracted from interviews and milestone documents.

***Figure 5.2*: Main GRB events at the decision-maker level**

Oct 94 | *Nov 94* | *Dec 94 Jan 95* | *Feb 95 Mar 95 Apr 95* | *Apr 95 May 95*

Senior management conference

Creation of executive team for strategy formulation and of four tasks teams for assistance

Presentation of business direction for the JENA corporate bank in the 1994 annual report; development of GRB strategy

Approval of GRB strategy; appointment of GRB leaders

Jun 95 Jul 95 | *Aug 95* | *Sep 95* | *Oct 95 Nov 95* | *Dec 95* | *Jan 96*

Selection of key middle managers of GRB by newly appointed leaders

Announcement of appointments

Off-sight with all key managers (100-125) to discuss roles & responsibilities

Jan 96 Feb 96 Mar 96 Apr 96 May 96 | *Jun 96 Jul 96 Aug 96* | *Sep 96 Oct 96*

Elaboration of GRB business model: specification of customer relationship processes; specification of other key management processes; training courses. Decision to install a new MIS: SMART 2. Start of full-scale implementation process

GRB is starting to work well

Nov 96 Dec 96 Jan 97 Feb 97

Continued GRB is starting to work well

Sources: interviews; annual reports; internal reports

Having formulated overall business directions, the next step for top management was to form three teams that had to create strategies for each of the core franchises: the corporate bank in JENA, the corporate bank in IBF, and the consumer bank. This decision was a direct outcome of an executive meeting in November 1994. The JENA team to which the top management team turned over the charter consisted of heavy-weight divisional managers. They were familiar with top managers' conception of the corporate banking business and were expected to develop a strategy within the parameters of the business statement. The installation of this team heralded a period of evaluation and recreation of the existing business model.

The next step: Toward a new divisional business model

Between January and mid April 1995, the JENA team worked on the development of a new strategy. Before actually moving into strategy formation, however, the team members needed time to face the problems they were dealing with. The senior manager who was appointed coordinator of team efforts by top management recalls:

> *People were sitting around the table and talked about anything but the big issue which was: we are not admitting to ourselves that the corporate bank is a disaster. People were talking about fixing the business but nobody was saying: it is a terrible business* (interview, 1 June 2001).

Two key factors pushed the team toward a reconsideration of the business. The first was the requirement from the top to get a clear strategy in place. The second trigger was the belief that the existing strategy would destroy the corporate banking business. Citibank's decision-makers perceived the problems in corporate banking in the JENA region as structural. In their opinion, environmental developments such as overcapitalization, shrinking margins, and intensifying competition continued to erode the company's corporate banking business model. In the consecutive strategy-making process, the senior management team choose to act as a steering committee and to reach out to middle managers for support. Four task teams were created with representatives from different geographies and disciplines.

Each of the teams dealt with a specific set of issues. One team was responsible for pulling together the account profitability systems of Japan, Europe and North America. Cross-country analyses were then conducted to generate insight into customer-based revenue flows across geographical boundaries. There was a team conducting environmental analyses. This team focused on where the economy was going and on unraveling industry developments. There was strong desire to build a business that could be attached to so called megatrends, to derive momentum from changing environmental conditions. Exhibit 5.3 summarizes the main developments that were identified.

***Exhibit 5.3*: Perceived megatrends in the JENA corporate banking environment**

- Manufacturing is declining as a percent of GDP while services, including financial services, are increasing
- Slow economic growth within the OECD and deregulatory trends are resulting in companies consolidating their positions across JENA markets and expanding into fast-growing emerging markets
- Relentless pressure on costs is shifting production to emerging markets countries
- A global capital market is leading investors to diversify assets across geography, currency, and risk parameters
- Ratio of financial assets-to-GDP is rising as populations age and pressure to fund pensions increase
- Globalization of consumer tastes is creating demand for OECD products

Source: GRB business directions report (April 18, 1995)

The continuing shift from a manufacturing to a service economy was recognized, as well as the saturation of developed markets and the consequential expansion of client organizations into emerging markets. Besides demand issues, production-related issues such as the quest for cost efficiencies were perceived as triggers for the increasing focus on developing economies. Other factors adding to cross-geographic financial transactions were the emergence of a global capital market, allowing investors to diversify assets across geography, currency and risk parameters, and the globalization of consumer tastes. A perceived impuls for financial services were demographic changes, e.g. aging of the population. The increase in senior citizens has been accompanied by a growing demand for pension fund products and services. Finally, a megatrend perceived were the advances in technology and information systems, which constrained the intermediary role of banks while also enabling banks to lower costs and increase their service level by introducing new distribution channels and transaction techniques.

A third team concentrated on product-related issues such as dependency on particular product categories, their revenues and costs, and the product needs of corporate customers. Finally, a group of people worked on organizational issues which basically covered design.

Besides the middle managers, some external consultants provided assistance in the strategy-making process.

The analyses of the teams revealed several growth opportunities. The financial analyses, for example, clearly showed the advantages of data aggregations at the customer level. These findings were substantiated in informal meetings that steering committee members had with organization members and customers. Globalization emerged from the environmental analyses as a solid foundation for the new strategy, enabling Citibank executives to exploit their company's key competitive advantage: its wide international network of operations. The product team showed which products should be in the portfolio to meet the needs of global customers, as well as the profitability of those products. Products yielding an unattractive return on a stand-alone basis would still be included in the portfolio if they were center of the plate for internationally operating corporations. Loans exemplified this reasoning.

On April 18, 1995 the JENA steering committee presented corporate management with a strategy which was labeled Global Relationship Banking. In the strategy proposal, the committee had named itself the 'Dead Moose Society', referring to the 'dead moose which had been lying on the table' in the early stages of the strategy formulation process: the horrible state the JENA corporate banking industry was in. To allow the corporate bank to survive in the JENA region, the Dead Moose Society proposed a fundamental reorientation toward a definition of the business around a specific set of customers. In those days, commercial banks were generally organized according to geographies while investment banks were mainly product- focused. The strategy was also framebreaking in the sense that it would divert attention away from the U.S. middle market, a business that was still generating large revenues. In line with the company's overall business directions, corporate banking activities in JENA would revolve around those customers whose interests and needs were global. Focus would therefore be on globalizing industries. Building and maintaining long-term customer relations was considered crucial. In terms of organizational design, this strategy was associated with segmentation of customers by industry, information sharing *across* geographic boundaries, standardization of management processes, the use of a balanced business scorecard (BBS)-based performance measurement and reward system, and the introduction of a customer-based management information system. According to the chief of staff who acted as coordinator between steering committee and task teams,

> *it was common sense as well as the conclusions that we reached from the material, the analysis we had done that this was the way for us to go* (interview, 26 May 2000).

Table 5.4 summarizes the key changes in business beliefs which were underlying the strategy proposal.

***Table 5.4*: Key shifts in Citibank decision-makers' business beliefs**

Old business beliefs	**New business beliefs**
In the business to make money	In the business to serve customers
Short-term horizon	Long-term horizon
Geography, product, customer	Customer, product, geography
Vertical information flows	Lateral information flows
Financial measures are key	Both financial and non-financial measures are key

Sources: Interviews; GRB business directions; company presentations

From thinking to acting

Top managers' approval of the plans ushered in a period of strategic action. Responsibility for the overall coordination was assigned to the newly appointed head of the future Global Relationship Bank was the first concrete action. This person was at the helm of a group of fifteen senior managers who were the key leaders of the future GRB. All of the Dead Moose Society members were among these managers. Signalling the emphasis on customer focus, a team was formed specifically to deal with the customer side of the GRB -the so called C6. The steering committee and the task teams then continued strategy-making, elaborating on the new business model. With the basic concept in place, it became a question how to drive it down. The specification of core management processes was defined as a key task. These processes were considered the drivers of the new business model. The customer management process was a primary process of interest. Managing the customers well was believed to be essential for the success of the business. In deciding how customer relations should be managed, the architects of the GRB relied heavily on a forerunner organization, the World Corporation Group (WCG). As was indicated in the strategy proposal: "the 'WCG model' will be the overriding structure".

First formed in the 1970s, the WCG represented a unique concept in banking. It spanned Citibank's geographic organizations in the developed and developing markets, using a global management approach against a select group of top-tier companies which it offered a select product line. The WCG was disbanded in 1983 but re-established by popular demand in 1986. The WCG's client base was generally characterized by well-established, long-term relationships. The customer approach hinged on a parent account manager (PAM)-subsidiary account manager (SAM) system. Under this system, a customer parent organization had a central relationship manager, and its subsidiaries were assigned to other bankers for the specific countries in which they were located. The WCG was administered separately from the geographic units, but did not have its own P&L statement. Key organizing principles and performance measures were extracted from the WCG and around this genetic material, the GRB model was built. One of the managers directly involved in designing the GRB customer management process says:

> *this was a critical first stage foundation where many of the systems and processes by which we ultimately created a performance management system for our new customer organization were learned during those previous twenty years in this much smaller organization unit* (interview, 6 July 2000).

A core process distilled from the WCG was the Customer Focused Management Process (CFMP). The CFMP was a highly structured analytical process for identifying opportunities at the customer level. Depending on the share of the customer wallet gained by the financial services provider, its relationship with the customer has a certain depth, expressed in terms of zones progressing from prospect to strategic partner. The emphases on building long-lasting customer relationships and gaining share of wallet were later injected in the GRB. Before the WCG model was used as a building block for the GRB, it had already been extended beyond its original subunit. In 1988, the newly appointed head of Northern Europe implemented the concept in the Nordic countries. The manager spoke of ‘natural Citibank customers’ to indicate the target market in these countries. As he indicates: “the global customers and natural Citibank customers definition is totally the same”. Later on, the strategy was brought to bear on globalization dynamics across the whole of North Europe. The experiences gained in these strategy exercises were used as a frame of reference for the GRB. Besides the WCG, the Financial Institutions Transaction Services unit (FITS) was a precursor of the GRB. While the WCG focused on corporate multinationals, FITS was focused primarily on financial institutions. Similar to the WCG, the central concept was leveraging Citbank’s global resources by mobilizing them according to customer demands.

From the work of the steering commitee and the task teams derived a number of decisions. The JENA corporate bank would have a focused target market. Focus was brought in through a number of very strict customer criteria. The decision was made to have a window of opportunity for adding clients to the target market list opening once a year. Thus, the new business model also included maintenance rules. A structured approval process for new customers would be established. The team in charge of organizational issues recommended the creation of twelve industries as the basis for customer segmentation. Senior management slightly adjusted the plan by deciding on thirteen industries. Although representing a more radical change, segmenting by industry prevailed over geography because a better understanding of customer buying behavior was believed to be the result. The creation of industry centers of excellence would generate know-how spill-overs (cf. Baron and Besanko, 2001). The existing product organization was reorganized. The product units of the formerly separate geographic regions were centralized largely in three hubs: New York, London and Hong Kong. The shift to a single JENA region also gave way to the decision to consolidate back-office, technology and decision support functions. The manager who was put in charge of operations and technology for the trading activities in JENA recalls:

> *Suddenly we could start thinking about doing all the processing for foreign exchange in one location, not in three locations. We could talk about doing all of our processing in technology for derivatives in one location. Suddenly we had the ability to rationalize our activities* (interview, 30 May 2000).

The creation of the GRB involved the establishment of a clear matrix structure. Industry heads would be given profit responsibility for their particular industry groups, across regional boundaries. Country or market managers, who traditionally had substantial power within the corporate bank (especially in Europe), would become facilitators, a pivotal role in extracting client value from the geographic/global product network. In the new business model, their primary task would be to serve locally headquartered clients globally as well as the local subsidiaries of non-local clients. They also dealt with country- or region-specific matters (i.e. legal, financial, political) to allow industry heads to operate in the best possible way. During the summer of 1995, a group of around twenty managers came together in a conference center for a couple of days to specify the roles of the new organization. They built a sense of responsibilities and accountabilities, "going through who was going to decide on hiring and firing and pay decisions, who is going to decide what happens with a customer" (*source*: a senior HR manager supporting this effort). Then, on basis of the specifications, the group started laying out candidates for around forty top-level jobs. From the list of people, the best suited market managers (geographic dimension) and industry heads (customer dimension) were selected by divisional decision-makers.

In September 1995, the names of the market managers and industry heads were announced to the organization by the head of the GRB. A few positions still had to be filled at that time. In the end, all key positions were occupied by managers from within Citibank. There had been a look around in the external market but time was scarce and the novelty of the business model made it difficult to explain to external people. Before the announcement, candidates were informed about the new roles and responsibilities. One of the candidate-industry heads tells:

> *They had all these hypothetical situations: if the relationship manager does this or that, it is the role of the market manager or the industry head… And I actually thought it was a great exercise. It really helped me to understand the strategy and the different roles. What is the role of the industry head versus the market manager?* (interview, 13 June 2001).

As was the case with the Segmentation trajectory within IBN, the appointment of the figureheads of the new organization marked the beginning of adaptive dynamics below the decision-maker level. Simultaneously, there were more strategic actions undertaken by decision-makers. In early 1996, the decision was made to install a new management information system to support the client-based GRB structure. The so called SMART 2 represented an extension of a system which had been built in Europe. The MIS used in the WCG (called GAPS) was not considered an option for the GRB. This system was paper-based and had some credibility and timing problems. Expanding the European system globally still took quite some time. However, it then generated framebreaking insights through its presentation of revenues by customer. According to the then GRB marketing director:

> *That created a vision: "Wait a second, big global relationships make more money than even big domestic relations or single product ones". We began to see that there were big differences by customer that could not be explained by product. And that multi-crosshold relationships brought higher customer returns* (interview, 1 June 2001).

The insights provided the basis for a measurement tool that would become a key component of the GRB business model: the customer revenue unit (CRU). The CRU is a performance yardstick composed of the number of products delivered to a particular customer and the number of regions in which these products were delivered. Charan and Tichy (1998) illustrate how CRUs work in their GRB case description:

> *Handling a client's foreign exchange trading in North America, Asia, and the Middle East would add up to three CRUs –one product, three regions. Providing foreign exchange trading and cash management in Latin America, Japan, and Europe would equal six CRUs.*

Change agents used this operating mechanism to get people to think in terms of cross-holdings rather than financial increments. According to the marketing director:

> *CRUs are not financial, we specifically did not allow them to be financial. Strategic measures that keep you away from accountancy and become defining for the focus and direction of the company* (interview, 1 June 2001).

Adding to the value of CRUs as a change tool was the fact that a law of increasing returns-effect had become apparent in revenue data. Analyses showed a continued increase in revenues with an increase in number of CRUs. Until then, managers had assumed to have diminishing returns after a certain threshold which was supposed to be somewhere around ten CRUs. This insight strengthened the belief that relationship banking was a knowledge-based business. Deep knowledge of the client organization gathered across as many regions and products as possible was expected to lead to substantial performance improvements. Originally emerging at the decision-maker level within the division, these business beliefs were then transferred to lower levels. According to the former head of the GRB, to get these beliefs adopted:

> *the trick is to create a view in people's minds of what their success is coming from. Once people get convinced: if I am doing the following three things, I will get rewarded and success…Getting them to do it is not the problem. It is getting them to have that view, that they can be successful* (interview, 10 June 2002).

This insight was translated into practice by introduction of the Balanced Business Scorecard (BBS). The BBS, which was considered a reward system reinforcing GRB performance measures, directed attention to non-financial goals such as teamwork and customer satisfaction in addition to the financial yardsticks it comprised. The desire to go beyond financial achievements to include a set of core values in performance evaluation and rewards was already expressed in 1990 by John Reed:

> *I want our people to feel they're within a band of fairness on financial compensation and then to think about other things: their job, the quality of their colleagues, the customers they deal with, their sense of organizational pride. Those are the values I'd like the compensation system to reflect* (in Tichy and Charan, 1990: 142).

In early 1996, when full-scale implementation started, the new GRB performance evaluation and reward systems were not yet in place. From the top down, managers and bankers were pushed to behave according to the new rules. The head of the GRB himself demanded that managers reported revenues on a client/industry basis. This executive was of the opinion that revenues would come in naturally when having superior knowledge of customer organizations. In his opinion, John Reed made his work a bit easier, creating a sense of anxiety among divisional members by openly expressing his unfavourable disposition toward their unit. From the marketing function also came strong impulses to get the GRB concept accepted in the JENA corporate bank. Besides purposefully introducing jargon, senior marketing management created a GRB training program. The customer management process was a key part of this program. Equipping organization members with a single vocabulary and a good understanding of the rules was deemed essential for generating uniformity of thought. A milestone event was a management meeting on June 10, 1996 at which the industry heads had to present industry group plans to the C6. Events like this one proved valuable ways to build understanding and trust. At the same time, the June 10 meeting also revealed there was still some resistance and lack of understanding among the new leaders of the GRB.

Getting people on the GRB track was one thing. Preventing them from reverting back into old habits was another. As a primary change agent, the head of the GRB stayed very steady on the vision underlying the business model. He made it very clear to divisional members that the GRB was first and foremost defined by its customers. A product might be disposed of, a badly performing employee might be layed off but the customer would always be maintained. The head of the GRB did hardly brook any argument against the ideas underlying the new business model. New rules were implemented consistently across regions and there was little or no deviation from them once they were established. Section 5.3 explores the consequences of this approach to adaptation for organization members below the decision-maker level.

5.4 At the organizational level: Resources, business beliefs & recurrent actions

Figure 5.3 provides an overview of organization-level events in the GRB adaptation process. After they had been appointed, market managers and industry heads gathered in Florida for a few days to be formally introduced to the new strategy. A key objective of this off-sight was to get the new leaders to understand the rationale behind the business model they were going to run. A senior manager involved in the GRB process as change agent explains why:

> *It is not good enough to just give people a title and a broad direction. It is just not enough. You have got to explain them how it works. So having communicated to them, they have a clear enough understanding of what their role is supposed to be. To be able to start doing it* (interview, 1 June 2001).

***Figure 5.3*: Main GRB events beyond the decision-maker level**

Oct 94	*Nov 94*	*Dec 94 Jan 95*	*Feb 95 Mar 95 Apr 95*	*Apr 95 May 95*

Jun 95 Jul 95	*Aug 95*	*Sep 95*	*Oct 95 Nov 95*	*Dec 95*	*Jan 96*
		Announcement of appointments	Off-sight with all key managers (100-125) to discuss roles & responsibilities		

Jan 96 Feb 96 Mar 96 Apr 96 May 96	*Jun 96*	*Jul 96 Aug 96*	*Sep 96*
Elaboration of GRB business model: specification of customer relationship processes; specification of other key management processes; training courses. Start of full-scale implementation process	Presentation of industry group plans		GRB is starting to work well

Oct 96 Nov 96 Dec 96 Jan 97 Feb 97
Continued GRB is starting to work well

Sources: interviews; annual reports; internal reports

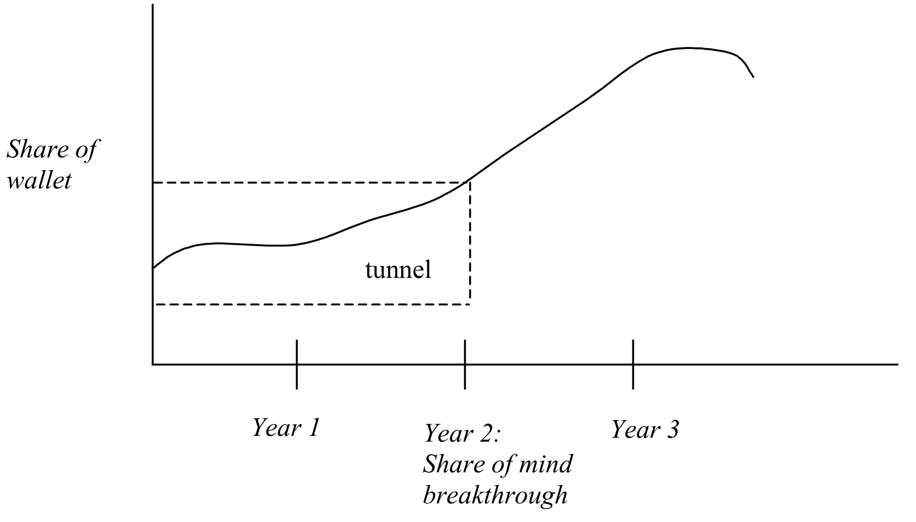
One of the things considered critical to the success of the GRB was the cooperation between market managers and industry heads in the new structure. To set the stage for effective cooperation, the off-site was aimed at encouraging dialogue, and developing trust and mutual understanding.

For explaining the GRB business model, senior managers from the marketing department of the JENA corporate bank had developed a jargon. Several of the core concepts derived from forerunner units (i.e. WCG, FITS). For example, the phrase 'serving global customers globally, and become their lead international bank' became a mantra. As one of its architects argues: "It is as clear and powerful a one-sentence objective function for strategy as I know. It's who, it's how, and it's what –what we want to become. No extra words." (*source*: Charan and Tichy, 1998). Another icon was the S-curve diagram, an operating mechanism designed to help managers and bankers visualize the customer management process. Exhibit 5.4 provides a brief introduction.

***Exhibit 5.4*: The S-curve diagram**

At the heart of the S-curve diagram (Figure 5.4) lies the presumption that relationship managers need to build share of mind in order to gain share of wallet. The vertical axis of the diagram represents the bank's share of the customer 's wallet. The horizontal axis shows time. The first two years of building a customer relationship require much work and yield little visible return. This period is labeled 'the tunnel'. After two years of consistent effort, a break through is achieved and relationship managers can start to work towards the key goal: becoming the customer's lead international bank.

***Figure 5.4*: The S-curve diagram (Charan & Tichy, 1998)**



The S-curve diagram underscored a long-term perspective regarding customer relations. The rationale behind the development of the S-curve diagram was that bankers would become more persistent and patient when understanding the dynamics of such relations. The repetitive use of certain concepts and models to explain the basic principles of the GRB business model proved powerful in changing middle managers' business beliefs. Having process management professionals preside over discussions among industry heads and market managers at the Florida off-sight also had a significant impact on people's understanding of the changes. In some instances, the discussions led to a refinement of the new rules.

A proactive change management approach was necessary as the GRB was implemented *at once*:

> *We did not say: let's do a pilot. We said: we do everything at once, the same format everywhere. And the reason for that was not that the format fitted everything perfectly, but it was to get everybody's thoughts around: this is the way we are going to do things* (source: GRB marketing director, interview, 1 June 2001).

GRB executives felt "it was a big enough change that you could not evolve into" (*source*: head of the GRB). The radical change implied there was no structure through which organization members could feel their way toward the new business model, testing and discovering as they went along how new practices could be realized in everyday activities and tasks. The organization was suddenly refocused toward a list of 1400 names, global customers that Citibank would serve globally. Due to its radicalness and magnitude, the change process posed some major challenges to divisional members. A senior HR executive directly involved in the adaptation process sheds light on the situation in the first half of 1996:

> *The first six months were tough because everyone was figuring out how to operate in this new model. And if we assumed that people were giving it their best efforts, there were still clearly difficulties and some people didn't give it their best efforts* (interview, 26 May 2000).

As was the situation within IBN (see previous chapter), the new leaders from the customer dimension and from the geographic dimension became involved in different adaptive dynamics.

Global industry heads

From September 1995 on, the industry heads were actively involved in the GRB development process. One of the first tasks was to set up the target market lists for their particular industry group. One of the newly appointed industry heads describes the process:

> *We just went through an account list and put names in a box. We worked for weeks on this. We had to start a business from scratch. But it was kind of fun, because we tried to create something* (interview, 13 June 2001).

As a consequence of the decision that the focus would be on global(izing) corporations, a number of existing clients had to be demarketed and business units closed down. This was not an easy process; some of these customers had been served for years and their departure caused relationship managers to resist the new rules imposed from the top. In response, decision-makers were very strict in implementing these rules. A project coordinator who had been directly involved in the strategy-making describes the reaction:

> *We said 'no' to people who came up to us and said: We have been dealing with company X and we make an enormous amount of money of that company, but they are not on your list. Can we deal with this company? Are you sure you want to give this customer to another bank?* (interview, 26 May 2000).

Only after the merger with Travelers in 1998, and the introduction of investment bank Salomon Smith Barney into the corporate bank unit, the targeting process became somewhat more flexible. Besides assembling their customer groups, industry heads had to create and maintain an Information Knowledge Advantage Package (IKAP) which consisted of two parts. The industry profile covered key issues and trends. A framework of fifteen questions was supposed to lead the inquirer to superior industry and customer knowledge. The IKAP for a particular industry was made available to all relationship managers serving clients in that industry. Encouraging these managers to gain and demonstrate their knowledge of global industry trends, IKAP enabled them to be more effective in helping clients succeed in their businesses –a key tenet of the GRB business model.

Market managers

Market managers were carefully selected. Despite this, and the purposeful use of levers for change (i.e. key concepts and models, compelling evidence, conferences, reinforcing performance measures and reward systems) several regional/country managers opposed the changes. One of the industry heads recalls:

When we first started off, the market managers were tremendously sceptical and very protective of their organizations because they were going from an organizational structure where there was no industry, where they were the only ones who were in charge, to now also having someone else located in some other place who had primary responsibility for 80 or 90 % of the business done in their country. That tension that started off was very high (interview, 1 June 2001).

Resistance arose across geographies, but the reasons for people to oppose differed between them. For example, in Europe, where countries had long been under the reign of corporate country managers, anxiety existed among some of these managers about the impact of the GRB model. In the U.S., where industry centralization already existed to some extent, it initially proved quite difficult to convince people about the need for a cross-border focus. Industry heads had been selected who were expected to be sensitive to this conception of change among market managers. This helped to reduce tension and focus managers' attention on the positive rather than negative effects of the GRB.

Beyond industry and market levels

Because the global economy was strong during the new strategy's formative years, compelling financial results started to show quite quickly. Table 5.5 gives an overview of total revenue of the JENA corporate bank between 1993-1999.

***Table 5.5:* Total revenue of the corporate bank JENA (1993-1999) in $ millions**

Year	1993	1994	1995	1996	1997	1998	1999
Total revenue	3,893	3,181	3,587	3,220	3,815	3,914	4,083

Source: Citicorp annual reports 1993-1999

Before the GRB got established, earnings growth was marginal. Since 1996, the corporate bank in JENA has had higher growth from global customers, and a ROA which has continued to improve. ROC of the GRB when it was created in 1996 was 11 per cent. In 1999 -without the benefit of non-capital intensive income from investment banking- ROC was around 19 per cent. The credit history between 1996 and 1998 was considered to be very good. Besides the advantage of having a strong wind behind the new strategy, the booming economy was beneficial to the GRB in a less direct way. The head of the GRB at the time explains:

We were afraid that other banks would tumble on [the GRB strategy]. And if the markets had not gone the way they went in the late 1990s, they would probably

> *have. But they all got so blinded by all this money they could make in investment banking that they all went after that* (interview, 10 June 2002).

Customers valued the new approach. The GRB model provided them with a 'gateway' (Parent Account Manager) who would mobilize resources across regions and product areas to manage the relationship as effectively as possible. Their positive feedback in customer surveys as well as in direct encounters with the organization increased organization members' trust in the new rules. While in the early stage of implementation, employees' struggle to grasp the new rules kept them internally focused, the positive results and consistent top-down pressure for a customer orientation slowly turned the organization around. According to the senior HR executive involved, " by the end of 1996, we began to see that people figured out how to work together". Senior management hired a consultancy firm to monitor the implementation process. Through the consultants, reactions to the new rules and the way they were implemented were fed back to divisional decision-makers.

After a certain time, decision-makers' focus shifted from getting the changes adopted by organization members to the effectiveness of these changes in terms of the initial goals of adaptation. Some new rules created problems. The C6-construction exemplified how over-complicated the new structure initially was. In a forceful attempt to break with the geographic tradition, the C6 had each been assigned some regions and some industries. In practice, the executives spent most of their time travelling between geographies. A year and a half after the C6 had been put together, the committee was dismantled. As one of the change agents, a marketing director, indicated:

> *[We] allowed geography to have more of an influence and simplified the organizational structure. And we could do that because we had killed geography. It was possible to reintroduce it without it breaking out again as the defining principle to the organization* (interview, 1 June 2001).

Besides adjustments made to remedy the teething troubles of the GRB, corrective action was undertaken to optimize the new business model. For example, a 'rising star' list was added to the original customer base. These rising stars were companies that did not yet meet the GRB criteria but were well on their way. Recognizing the importance of building a relation with companies well positioned to become global as early as possible, decision-makers allowed for these companies to be added. A third set of adjustments were made in response to opportunities emerging as a consequence of the new rules. Rationalization and consolidation efforts were examples of this.

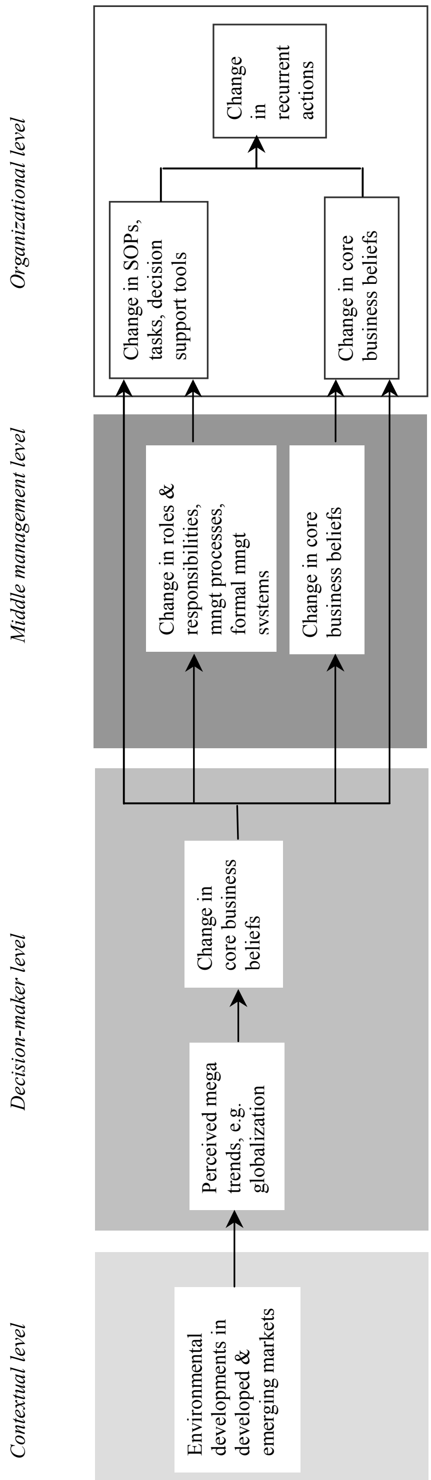
First and foremost, the GRB model changed which customers were approached and how. This boundary-spanning change reflected in changes in the internal organization. The role of market managers changed considerably; from the ones basically in charge of activities in their particular regions/countries, they entered a much more facilitating function in the matrix structure. In today's corporate business unit, the market managers really carry the business on a day-to-day basis. The industry head leverages the day-to-day activities by providing industry and customer expertise. Cooperation across geographical and discipline borders has become much more important. To a certain extent, the new rules have reinforced behaviors that were beginning to become normal in the corporate bank anyhow. Pre-GRB initiatives for a stronger global focus in Europe exemplify this. As the evidence indicates, the changed behaviors have persisted over time. Even during and after the merger with Travelers, the processes, structure, and vocabulary remained largely intact, and even most employees stayed on.

5.5 Conclusion

The GRB process is visualized along the lines of the integrative framework in Figure 5.5. The environmental developments constituting the context of the GRB process covered developed as well as developing countries around the world. The severe performance crisis in the corporate bank had forced corporate management to get directly involved in this business. From corporate management involvement derived a comprehensive view on the problems the corporate business was facing and some high-level solutions for these problems. Attention of decision-makers was directed at mega trends and how these trends related to the corporate bank as part of a wider Citibank organization. This high-level approach was reflected in the type of changes taking place in business beliefs at the decision-making level. These were high level as well. For example, the corporate banking target market was redefined to include those customers who would value Citibank for its globality. This high-level statement was then specified to global corporations and their cross-border financial needs. These companies were believed to offer Citibank a solid basis for short as well as long term success; their need for cross-border financial products would fit seamlessly with Citibank's global scope. As was the case within IBN, one of the first actions was the appointment of the managers who would run the customer and geographic dimensions in the new matrix structure. Also in line with the approach chosen within IBN, these key players were carefully selected. Divisional decision-makers actively involved middle managers in building the GRB. These managers were introduced to the new set of core business beliefs and were then granted the authorizing power to undertake strategic actions in line with the GRB objectives. Decision-makers thus created a structure for middle managers to be mobilized in strategic actions. However, they also aimed for a change in these managers' business beliefs and their resources to change recurrent actions. Rather than the backbone of adaptation at the middle management level, this type of structure represents an outcome of the process. The two structures are interrelated in the sense that the latter is partly shaped in strategic actions enabled by the former. Just as in the IBN case, middle managers have had some saying in the adaptation process over what their own roles and responsibilities in the new organization were going to be. The cognitive bifurcation that emerged from the IBN case is also apparent in the GRB account. Middle managers in those positions that were immediate derivatives of the new business model generally acted as catalysts of change, while some of the managers in roles already existing before the GRB resisted the changes.

Easy access to learnings that were relevant to the adaptation process allowed decision-makers to be swift in devising management processes and other ingredients of the new business model. Another resource of importance at the middle management level were the formal management systems, such as the performance evaluation and reward system. While not yet in place when implementation began, this system later on served as an effective tool for redirecting organization members' attention from geographies to customers. Using authorizing power to force changes on organization members proved less effective. Changes at the organizational level were fueled by higher-level strategic actions from divisional decision-makers as well as by substantiations and extensions of such actions from the side of middle managers. Changes in structure regarded mainly the introduction of operating procedures, tasks, and decision support tools in line with the management processes that had been laid out. For example, a new decision support tool was IKAP, a document that captured the key dynamics of a particular industry. The change management approach pursued in the implementation of the GRB revolved around a set of visualizations and concepts which were consistently and continuously communicated throughout the organization by key change agents. The power of these communications appears from their persistance over time and across levels as key elements in daily practices. Their enactment in day-to-day operations pinpoints the essence of change in recurrent actions within Citibank's corporate banking business.

***Figure* 5.5: The GRB process in terms of the integrative framework**



This chapter reported on the second part of the field research: the study of the GRB adaptation process within Citibank. After the description of the adaptation processes now follows an examination of within- and across-case patterns in the light of the research aims.

CHAPTER 6
LAYING OUT ADAPTATION PATTERNS

Two cases of adaptation in the increasingly dynamic banking industry were discussed in Chapters 4 and 5. The present chapter builds on the discussions to reveal insight in the pervasive influence of cognition in adaptation. Key empirical findings lead to extension and refinement of the original theoretical framework. The chapter is structured around three central themes. Section 6.1 introduces these themes and the associated patterns of adaptation. The first theme, discussed in section 6.2, regards how cognition changes in adaptation. Section 6.3 then focuses attention on the second theme: the structure-action dynamics that emerged from the research as a key feature of adaptation. The third theme, which is dealt with in section 6.4, regards the role of middle management in adaptive efforts. Section 6.5 concludes the chapter with an elaborated cognitive model of adaptation.

6.1 Introduction

In the concluding parts of Chapter 4 and Chapter 5 the key findings which emerged from the case studies were presented in terms of the integrative framework. Assessing the role of cognition in the two adaptation processes under consideration, some interesting within- and across-case patterns appeared. In this chapter, these patterns are pinpointed and interpreted. They are said to cover three main themes. The first theme hinges on changing cognition in times of adaptation. Change in cognition has been framed in terms of the interrelation between perceptions and business beliefs. The value of this conceptualization is indicated by describing the associated patterns. The second theme captures the essence of adaptation from the particular perspective used in this research: the interaction between structure and action. The dynamic and multi-level conception of the structure-action duality has proven a powerful framework for analyzing adaptation. Finally, the third theme deals with the role of middle managers in adaptation processes. In studies on top-down radical change, middle managers have traditionally been considered mainly as a source of resistance (Balogun, 2003; Huy, 2002). The findings of the current study give way to a broader notion of middle management's influence on adaptation. Middle managers were an important source of innovation and framebreaking action. The patterns allow for an elaboration of the original theoretical framework (see Figure 6.1).

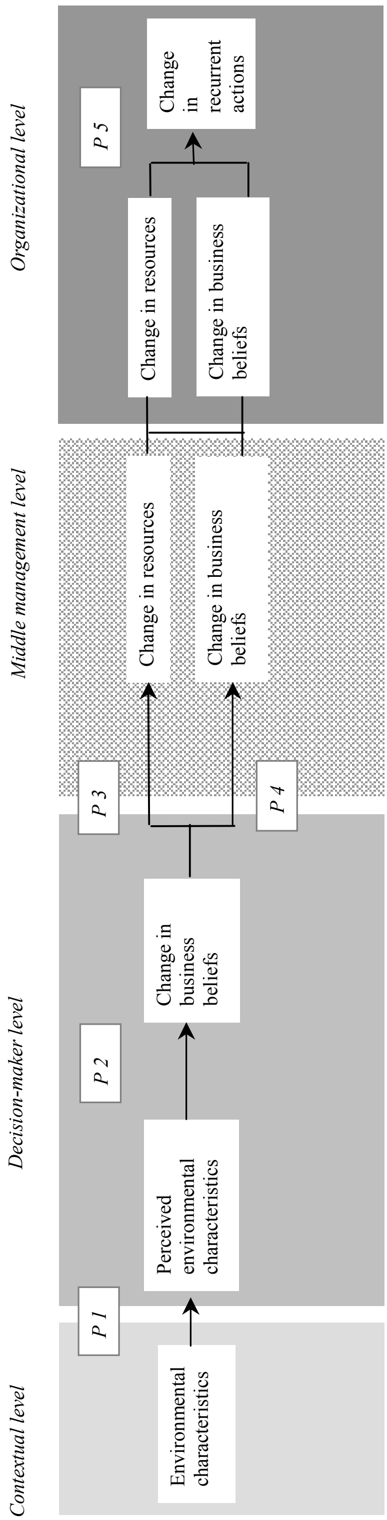


Figure 6.1: **An elaborated integrative framework of adaptation**

6.2 Theme 1: How cognition changes in adaptation

A key variable in the theoretical framework has been change in decision-makers' business beliefs. Business beliefs were defined as fundamental assumptions about the nature of business and how to succeed in it. Perceived environmental characteristics represented the second cognitive construct of interest at the decision-maker level. Perceptions were described as the joint product of observations and interpretations. Building on previous organizational studies, it was suggested that perceived environmental characteristics are the primary trigger for a change in decision-makers' business beliefs in adaptation processes (see framework). Exhibit 6.1 provides an overview of the associated propositions.

***Exhibit 6.1*: Recap of relevant propositions: P1 and P2**

Propositions on change in cognition (see Chapter 2)
P1 Environmental change triggers a change in perceived environmental characteristics at the decision-maker level
P2 A change in perceived environmental characteristics triggers a change in business beliefs at the decision-maker level

The interrelation between decision-makers' perceptions and business beliefs arises as a first matter of interest from these propositions. Part of this section will address the dynamics connected to this interrelation. Another part deals with how new business beliefs develop and get established. The different activity sets in this process and its multi-level nature are two key aspects under consideration. How cognition relates to adaptation is the thread running through the current section.

How perceptions and business beliefs interrelate

The distinction between perceptions and business beliefs proved helpful in analyzing the cases. Looking at perceptions made it easier to understand how business beliefs evolved. The empirical study supports previous research on the dual role of perceptions (see Chapter 2). Perceptions that are predominantly based on the actual information environment seem to trigger new beliefs whereas perceptions based largely on past experience confirm existing business beliefs. One example for the former derives from the IBN case. In the Segmentation project, segment managers formulated a strategic plan for their particular segments. Up-to-date information on the business environments of these segments was used to define strategic prescriptions for operating successfully in these environments. The following excerpt illustrates this for the Private Banking segment within IBN:

> […] the Private Banking business plan focused on entrepreneurs as the key target market for IBN. An examination of market dynamics (e.g. ABN Amro as established private bank for 'old' money; private banking market potential for 'new' money) […] had fueled the segment manager's belief in this strategy [Segmentation case, Chapter 4, page 68]

A clear example of the impact of perceptions that are shaped by past experience also appears in the IBN case. In their interpretation of the challenges IBN was confronted with, corporate-level managers relied on the existing belief that profit responsibility should be assigned to a particular function rather than be shared between roles.

Perceptions influenced how beliefs evolved in yet another way. In some instances, in both cases, perceptions served to validate emerging beliefs. Interestingly enough, there is a lot of similarity between the validating roles of perceptions in each of the adaptation processes. In the Segmentation trajectory, decision-makers developed several preliminary beliefs which they then tried to validate:

> With a preliminary conception of the business and some preliminary beliefs about how to succeed in it in place, the divisional board decided to put a project manager in charge of elaborating on the ideas with the intention of formulating a new direction for the division [Segmentation case, Chapter 4, page 58]

Together with some other staff members and external strategy consultants, the project manager developed an in-depth understanding of the business environment, focusing on issues that were already on the decision-makers' minds. The outcomes of the analyses of the project team added to the belief status of preliminary conceptions. In the GRB process, task teams were formed by the senior management of the division to conduct an environmental analysis as well. Top-level managers had already labeled globalization a driving force of the corporate banking industry, but reached validation of this conception through this analysis:

> Globalization emerged from the environmental analyses as a solid foundation for the new strategy, enabling Citibank executives to exploit their company's key competitive advantage: its wide international network of operations [GRB case, Chapter 5, page 94]

Considering beliefs advanced insight into how and why certain perceptions emerged in the cases. One example of this has just been mentioned: preliminary beliefs channeled attention into certain events and issues in the environment. Established beliefs also shaped perceptions in various occasions. Citibank's executives had serious difficulty with facing the changes that were taking place in the corporate banking business, as they persisted in existing beliefs:

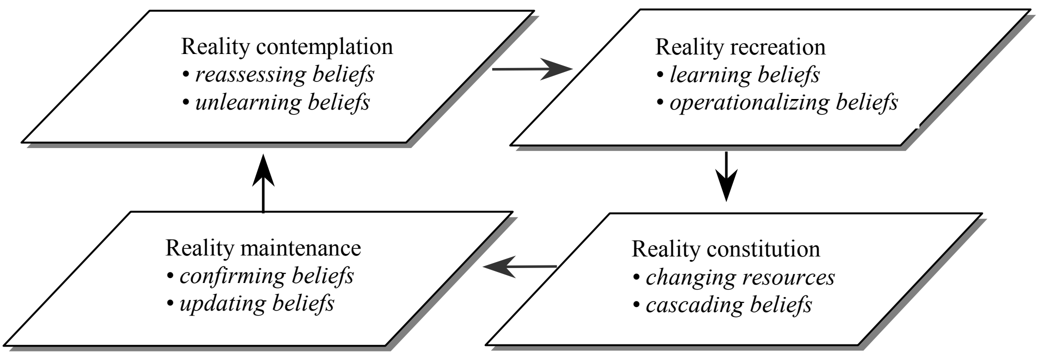
> "People were sitting around the table and talked about anything but the big issue which was: we are not admitting to ourselves that the corporate bank is a disaster. People were talking about fixing the business but nobody was saying: it is a terrible business" [GRB case, Chapter 5, page 92]

In sum, the distinction between perceptions and business beliefs advances insights into the way in which cognition evolves in adaptation. In this vein, the study of interrelations between these variables is key. Depending on their source (current information environment vs. past experiences), perceptions act as consolidators or levers of change for business beliefs. Close to the former role is the situation in which perceptions serve to validate emerging beliefs. In line with existing literature (e.g., Bettis and Prahalad, 1995), business beliefs in the current research influenced perceptions by channeling attention and shaping interpretation.

How new business beliefs get established

Four key sets of activities in the development and establishment of business beliefs emanate from the case data. These sets of activities are mapped out in Figure 6.2.

Figure 6.2: **An empirically-derived notion of changing cognition in adaptation**



Reality contemplating and recreating activities concern the development stage, and reality constituting and maintaining activities relate to establishment. Each of the sets of activities will now be briefly described on basis of the case findings and linked to findings of previous adaptation studies.

Reality contemplation

The set of activities covered by the term *reality contemplation* involve the evaluation of existing business beliefs in the light of external developments. Table 6.1 provides an overview of key contemplation activities in both case studies.

***Table 6.1*: Key contemplation activities in the Segmentation and GRB cases**

Segmentation case	GRB case
First act of contemplation. Divisional decision-makers with strategy consultant as sparring partner. Developing a conception of the changed business environment and how it affects the division. Outcome: vision.	First act of contemplation. Corporate decision-makers with strategy consultant as sparring partner. Developing a conception of the changed business environment and how it affects the organization in general and the division in specific. Outcome: business directions.
Second act of contemplation. Project team of divisional staff and strategy consultants. Critical evaluation of IBN business model based on geography.	Second act of contemplation. Divisional decision-makers and task teams evaluate Citibank business model based on geography. Performance crisis accelerates and colors contemplation.
Middle management acts of contemplation: Segment managers develop business models for their specific domains.	Ad hoc middle management acts of contemplation: Global Industry Heads consider the new rules for their particular industry groups.

Contemplation activities have been discussed in other organizational studies as well. A number of strategy studies have engaged in why and how business beliefs -often deeply ingrafted in organizations- are articulated and judged on their validity (Bartunek, 1984; Gioia and Chittipeddi, 1991; MacIntosh and MacLean, 1999; Mezias et al., 2001; Senge, 1990). MacIntosh and MacLean (1999) and Mezias et al. (2001) draw from consultancy experiences to provide insight into conditions that nurture the contemplation process. Senior managers' commitment to the process has been identified as a primary condition; it takes time (i.e. resources) to challenge and unlearn old beliefs and develop a consensual understanding of the forces shaping the environment. This argument is confirmed in the present study. Both adaptive efforts were initiated from the top down. Senior management commitment enabled the actors involved (including the senior managers themselves) to invest the time and resources needed to engage in contemplation activities. An example of this from the IBN case are the company visits that were arranged by a strategy consultancy firm:

> They arranged for the divisional board, complemented with several staff members, to visit a number of American and European financial institutions for understanding where the industry was headed to and how other firms were responding [Segmentation case, Chapter 4, page 57]

The Segmentation trajectory lasted for more than four years, and has been extended in various change processes since. Senior managers' commitment has allowed for a continuing investment of time and resources in the consideration and reconsideration of underlying perceptions and business beliefs. Another critical success factor mentioned in literature is an open climate. In this vein, the involvement of skilled facilitators has been indicated as a means for encouraging individuals to articulate and reflect on their business conceptions (Bartunek and Moch, 1987; Mezias et al., 2001). Both cases provide evidence for such a role of consultants. In the Segmentation case, the strategy consultant who supported senior management of IBN in the early stage of adaptation describes the role of his firm as follows:

> "My guess is that [our firm] has been the driving force in the beginning by saying: You really have to break through existing frames of mind and need to get rid of the idea that everything is determined locally" [Segmentation case, Chapter 4, page 58]

As the excerpt shows, the strategy consultant encouraged decision-makers to unlearn certain beliefs that had been at the core of IBN's strategy for a long time. In the GRB process, several consultants engaged in contemplation exercises in different stages of adaptation, with regard to different aspects of change. For example, Citicorp's CEO was supported in this thinking about the impact of the changed banking landscape on his company by a strategy consultant. One of the managers closely involved in an early stage of adaptation refers to this consultant as John Reed's 'lubricator'. Also, a consultancy firm specialized in organizational design assisted in contemplation on design-related issues.

The literature provides several examples of successful and not so successful contemplation efforts in organizations. MacIntosh and MacLean (1999) discuss a company-wide survey at the Rover Group undertaken in the late 1980s which allowed executives to identify existing attitudes and rules. A less successful effort took place at Intel. Its top management failed to question the strategic rhetoric which undermined their strategy of being a major player in memory chips and microprocessors (Mezias et al., 2001). Gavetti and Tripsas (2000) confirmed the importance of 'deframing skills', i.e. the ability to question existing business beliefs, in their discussion of Polaroid's inability to adapt to radical changes in the imaging business. The current research joins these studies, confirming the importance of contemplation in (second-order) adaptation processes.

Reality recreation

Acknowledgment of the inappropriateness of the existing business model heralded the shift from contemplation to recreation in both cases. *Reality recreation* activities in this research regard the construction of a new set of business beliefs based on new insights. Perceiving new things, or perceiving things in a new way both seem to trigger these activities. Table 6.2 summarizes key recreation activities in the Segmentation and GRB trajectories.

***Table 6.2*: Key recreation activities in the Segmentation and GRB cases**

Segmentation case	GRB case
First act of recreation. Divisional decision-makers supported by strategy consultants create a vision.	First act of recreation. Corporate decision-makers supported by strategy consultants create Business Directions.
Second act of recreation. At divisional level: Project team and divisional board develop new business beliefs. Outcome of this process is the Segmentation plan indicating how IBN would be able to achieve success in the contemporary Dutch banking industry.	Second act of recreation. At divisional level: Divisional steering committee and task teams extend and refine the new business beliefs developed at the corporate level. Outcome of this process is the GRB plan indicating how Citibank's corporate banking division would be able to succeed in the JENA region.
Middle management act of recreation: Segment managers construct strategies for their particular domains.	Ad hoc middle management act of recreation: Global industry heads operationalize and refine the new rules.

Some scholars have suggested that major changes in belief structures occur through dialectical processes (Bartunek, 1984; Greenwood and Hinings, 1988; MacIntosh and MacLean, 1999). This means that old and new ways of understanding interact, resulting in a synthesis. Reality recreation is generally considered a difficult and time-consuming task. A new reality is likely to be experienced as threatening (Schein, 1980), and often leaves organization members disoriented and paralyzed (Hedberg, 1981). Tripsas and Gavetti (2000) found that Polaroid's senior managers experienced great difficulty with developing new beliefs. This showed in the discouragement of any development efforts that were not consistent with the business model these managers were familiar with.

Sewell (1992) gives some indications of where new business beliefs come from when discussing how the operations of structure can generate transformation. The author mentions the intersection of structures as a potential source of new assumptions and, subsequently, of new actions. Managers might borrow beliefs from a structure in their neighbourhood. The cases substantiate Sewell's suggestions. In the Segmentation case, decision-makers learned from their competitors as well as from their strategy consultants and applied these learnings in their own division. Decision-makers within Citibank copied organizing principles from a nearby organizational unit (WCG). Especially in the design of the core management processes, which were considered the drivers of the new business model, the WCG model provided a valuable source of know-what and know-how:

> In deciding how customer relations should be managed, the architects of the GRB relied heavily on a forerunner organization, the World Corporation Group (WCG). As was indicated in the strategy proposal: "the 'WCG model' will be the overriding structure" [GRB case, Chapter 5, page 95]

Reality constitution

The decision to move from formulation to implementation can be considered the transition point from recreation to constitution. Table 6.3 gives the main activities in this set.

***Table 6.3*: Key constitution activities in the Segmentation and GRB cases**

Segmentation case	GRB case
First act of constitution. Testing new business model through pilots. Active involvement of middle managers.	Immediate full-scale implementation of GRB plan throughout the different regions and industry groups.

Second act of constitution. Sequential full-scale implementation in districts. Active involvement of middle managers.	
Middle management act of constitution: Implementation of segment strategies.	Active involvement of middle managers in implementation of new rules.

In the present conception, *reality constitution* refers to activities through which managers secure business beliefs within the very structures and workings of organizations.

The theoretical framework developed in Chapter 2 focuses on two levers for constitution: resources and business beliefs. Resources referred to surface level organizational means for action such as performance evaluation and reward systems, marketing systems, and know-how. Business beliefs were considered the deeper level organizational means for concerted action. The cases have yielded interesting differences with regard to these two levers for constitution. In the Segmentation process, the emphasis was on changing surface level organizational elements from an early stage on:

> "While the vision presented to the executive board in the Fall of 1994 revolved around the changing environment and its impact on IBN, by the end of 1995 decision-makers' attention was mostly directed at internal design issues" [Segmentation case, Chapter 4, page 61]

A focused effort to change the thinking of organization members throughout the division took place only toward the end of the trajectory. A change management consultancy firm assisted decision-makers in achieving constitution of the new business model in the minds and actions of middle and front-end management. The perceived need for such an effort in this stage hints at the necessity of managing adaptation at both the surface and deeper levels. The GRB case seems to confirm this suspicion. When implementing the GRB business model, some managers who were very influential in the change process focused explicitly on both levers for constitution:

> Besides purposefully introducing jargon, senior marketing management created a GRB training program. The customer management process was a key part of this program. Equipping organization members with a single vocabulary and a good understanding of the rules was deemed essential for generating uniformity of thought. [GRB case, Chapter 5, page 100]

The fact that the basic principles of the GRB business model have persisted in organization members' thinking and acting indicates the success of the constitution activities in the adaptation process. The present study extends the work of MacIntosh and MacLean (1999), who advocate a focus on deep structure in organizational transformation.

Reality maintenance

New business beliefs need to gain momentum to achieve change in actual functioning of a firm. *Reality maintenance* activities are managerial activities aimed at reinforcing a newly constructed reality. As becomes clear from the cases, both positive and negative feedback mechanisms provide for such maintenance. Table 6.4 shows the primary reality maintenance activities distilled from the case studies.

***Table 6.4*: Key maintenance activities in the Segmentation and GRB cases**

Segmentation case	GRB case
Fine tuning more than reinforcing	Positive feedback from customers (qualitative feedback) and from performance (quantitative feedback) Negative feedback from decision-makers: Continuous reinforcement of the new rules; forcefully imposing the new rules.

In the domain of maintenance, managerial activities involve application of positive and negative feedback (MacIntosh and MacLean, 1999). Confirmation of behavior consistent with the new reality provides a multiplier effect, allowing it to take hold. Negative feedback helps to damp actions which belong to the old belief system. In the cases, positive feedback mainly derived from customers and from performance outcomes. In the GRB process, such feedback was explicitly used as a lever for change. Negative feedback in the cases mainly took the form of top-down enforcement of new rules. Especially in the implementation of the GRB model, decision-makers strived for discipline and consistency in the application of the new rules:

> The head of the GRB did hardly brook any argument against the ideas underlying the new business model. New rules were implemented consistently across regions and there was little or no deviation from them once they were established [GRB case, Chapter 5, page 100]

A set of business beliefs which are maintained over time offer a stable basis for organizational members' interpretations and actions. The shared background of understandings functions as a kind of agreement between members, enabling the orderly production of roles and rules (Ranson et al., 1980).

MacIntosh and MacLean (1999) use the term 'secondary rules' to indicate rules that determine how organizing principles should be maintained and updated. Their account of a strategic change program which was conducted with a Scottish food-manufacturing company serves to illustrate the working of such rules. The managing director of this firm displayed new rules on the overalls he wore on the shopfloor as a clear signal to employees regarding the way the business would be run. There are a few examples of the use of secondary rules in the case studies. The creation of a window for the customer list in the GRB model is one such example. It allowed for relationship managers to bring in new clients.

So how does the notion of changing cognition relate to the theoretical framework presented in Chapter 2. The notion of changing cognition indicates the cognitive bases for responding to environmental change (see Chapter 1). Building on the theoretical framework, it provides insight in the activities underlying a shift in decision-makers' cognition and the subsequent shift in form and functioning of the organization. While the activities are presented sequentially, in the case studies they took place in a more iterative fashion. For example, an iteration resided in the occurrence of the various activities at both the decision-maker and middle management level within IBN. In this vein, the research supports the outcomes of several other studies on adaptation (Bartunek, 1984; Bettis and Prahalad, 1995; Gioia and Chittipeddi, 1991; MacIntosh and MacLean, 1999). In a study of strategic change at a public university, Gioia and Chittipeddi (1991) portray the change process as iterations of sensemaking and sensegiving activities. These activities 'occurred essentially in a sequential and reciprocal fashion that encompassed progressively expanding audiences in the strategic change effort' (1991: 443). Bartunek (1984) reaches a similar conclusion in a study of a religious order whose belief system was undergoing second-order change.

The framework linked a change in decision-makers' business beliefs to a change in organization-level business beliefs and this, in turn, to a change in recurrent action. The case studies give way to a refined notion of how new business beliefs emerge beyond the decision-maker level. The diffusion of new business beliefs throughout an organization (unit) in top-down adaptation processes can be represented as a cascade. A new set of dominant beliefs arises as decision-makers share perceptions and ideas regarding the environment and the organization. As middle managers get involved in adaptation, the diffusion process becomes compartmentalized. Applying the beliefs to specific domains, middle managers substantiate their operationalization. Through strategic and recurrent action, these managers then orchestrate the organizational context for the practising of the business beliefs. The cases reveal different methods for decision-makers to get middle managers to adopt the new business beliefs. The creation of evidence supporting the particular beliefs has shown to be an important means. If this evidence is packaged in easily accessible visualizations and concepts, this seems to further increase the acceptance and incorporation of the new business beliefs. Conferences and workshops aimed at building understanding and trust also emerge from the case material as diffusion tools for decision-makers. Finally, performance evaluation and reward systems appear as a powerful mechanism for redirecting organization members' attention and efforts.

To conclude the first theme, the associated research propositions are evaluated in the light of the findings. In this light, P1 was supported in both the case studies (see Exhibit 6.2). The introductory quotes were indicative of the effect of environmental change in the financial services sector on decision-makers' perceptions of the developments. Both the interviews and archival data clearly showed that top-level managers within IBN and Citibank observed and interpreted key changes in their surroundings. P2 has been specified on basis of the findings. From the research appears that a change in perceived environmental characteristics triggers contemplation and recreation activities at the decision-maker level. These activities led to changes in business beliefs. The magnitude and type of changes in differed between the cases, however. In the IBN case, the changes were partial and from a longer term perspective rather incremental whereas corporate and divisional decision-makers within Citibank changed their beliefs more drastically and radically. A likely explanation for this difference is the fact that Citibank was faced with a severe performance crisis while the performance of IBN in the mid 1990s was satisfying. IBN decision-makers merely *expected* performance to go down due to the changing environmental conditions. In strategic change/renewal literature, the necessity of crisis for significant organizational change to take place is frequently mentioned (e.g., Huff et al., 1992; Lant et al., 1992; Mezias et al., 2001).

***Exhibit 6.2*: Empirically-derived refinement of research propositions P1 and P2**

Propositions on change in cognition (see Chapter 2)

P1 Environmental change triggers a change in perceived environmental characteristics at the decision-maker level

P2 A change in perceived environmental characteristics is more likely to trigger *contemplation and recreation activities* at the decision-maker level *when those developments are perceived as having a negative effect on organizational performance.*

6.3 Theme 2: Top-down adaptation as multi-level dynamics of structure & action

The theoretical framework developed in the second chapter of this thesis had the structurationalist concept of structure at its core. Sewell (1992)'s extension of the original concept of Giddens (1976) was used, which meant that schemas and resources were distinguished as the key components of structure. In the application of the concept, schemas were narrowed down to business beliefs. Resources were described as the means for action and examples given were authorizing power, formal management systems, and know-how. How structural properties shaped and were shaped by strategic action at the decision-maker level and recurrent action at the organizational level was the key question implied by the framework. Exhibit 6.3 offers a recap of the associated propositions which were presented in Chapter 2.

***Exhibit 6.3*: Recap of relevant propositions: P3, P4 and P5**

Propositions on structure-action dynamics (see Chapter 2)
P3 A change in decision-makers' business beliefs triggers a change in resources at the organizational level.
P4 A change in decision-makers' business beliefs triggers a change in business beliefs at the organizational level.
P5 A change in resources and business beliefs at the organizational level leads to a change in recurrent actions at the organizational level.

Two basic patterns emerge from within- and cross-case analysis within the scope of the second theme. The first pattern revolves around how business beliefs and resources influence strategic and recurrent action. The second dynamic deals with the second part of the structure-action duality: the way in which strategic and recurrent action influence business beliefs and resources.

How structure affects action

The cases provide evidence for four basic ways in which structure affects action. First, business beliefs constrain strategic and recurrent action. Secondly, these beliefs enable such action. The same applies to resources; they can constrain or enable action. Figure 6.3 provides examples from the studies within IBN and Citibank for each of the dynamics.

***Figure 6.3*: Case examples of the constraining and enabling effects of business beliefs and resources on strategic and recurrent action**

	Constraining	*Enabling*
Business beliefs	Segmentation: Belief in profit responsibility residing in a single dimension	GRB: Belief in serving global needs of global customers
Resources	Segmentation: Lack of segment-based performance evaluation system	GRB: WCG know-how

The case studies display different ways in which business beliefs constrain action. As the following excerpt from Chapter 5 indicates, for a while Citibank executives persisted in their beliefs regarding the corporate banking business. The changes going on in this environment were not perceived as triggers for adaptation; performance confirmed the existing strategy in the eyes of the decision-makers:

> According to some critics within and without the organization, corporate managers should have created a sense of direction for the corporate bank sooner. The CEO ascribed his late intervention to the lack of a perceived need for action [GRB case, Chapter 5, page 90]

Even if environmental developments are noticed and interpreted as a trigger for action, business beliefs might still hold managers back from initiating action. In the case of Segmentation, corporate-level managers were aware of environmental developments and perceived the need for IBN to respond. However, their commitment to existing organizing principles prevented them from approving the plans proposed by divisional decision-makers:

> According to the project manager of Segmentation in that particular stage, the reluctance of corporate management to pursue a more radical change had much to do with existing practices still being prominent in their minds [Segmentation case, Chapter 4, page 63]

The failure to notice environmental developments, to interpret them as triggers for adaptation, or to be held back from acting on a perceived need for change by existing business beliefs are all examples of cognitive inertia. Cognitive inertia has been said to "prevent managers from immediately assimilating new information into existing mental models" (Reger and Palmer, 1996: 23). Several other studies have shown the impact of cognitive inertia on strategic decision-making and action in the increasingly dynamic financial services sector (Haveman, 1992; Reger and Palmer, 1996; Wolfgramm et al., 1998). Their findings generally suggest that managers' mental models change slowly even when environments change rapidly. The constraining effect of business beliefs on action which has been distilled from the data thus supports this work.

Business beliefs are enabling in the sense that they (1) provide direction and energize; (2) put things in a new light; and (3) bring new things to light. The excerpt below illustrates the first point.

> […] the phrase 'serving global customers globally, and become their lead international bank' became a mantra. As one of its architects argues: "It is as clear and powerful a one-sentence objective function for strategy as I know. It's who, it's how, and it's what –what we want to become" [GRB case, Chapter 5, page 102]

What decision-makers believed would lead Citibank's corporate division to success in its business was summarized in a single sentence and communicated as such throughout the organization. It allowed for a relatively easy transference of a complex change, providing direction and giving meaning to managers' strategic actions. Besides direction and leverage, new business beliefs refreshed people's perspectives on issues. The GRB case provides a good example of this:

> "Suddenly we could start thinking about doing all the processing for foreign exchange in one location, not in three locations. We could talk about doing all our processing in technology for derivatives in one location. Suddenly we had the ability to rationalize our activities" [GRB case, Chapter 5, page 97, source: interview]

A new perspective on the business thus evoked a new perspective on how to organize certain back-office processes. This led to changes in the operational infrastructure of the corporate bank. Finally, new beliefs served to ‘increase the bandwidth’ or to ‘tune to a different band’ (Bettis and Prahalad, 1995: 8). In the GRB case, the shift toward customers as the primary organizing principle led to new insights that became the basis for strategic and recurrent action:

> The bottom line of SMART 2, the presentation of revenues by customer, generated frame-breaking insights. According to the then marketing director: “That created a vision: Wait a second, big global relationships make more money than even big domestic relations or single product ones. We began to see that there were big differences by customer that could not be explained by product” [GRB case, Chapter 5, page 98]

The enabling power of business beliefs seems to depend on at least two factors: (1) how ‘true’ they are in the eyes of the actors involved; and (2) how visible they are in the adaptation process. The fit between environmental opportunities and organizational strengths made the GRB seem like a viable strategic option among organization members. This helped to make them susceptible to change initiatives. While in the GRB case business beliefs were visible throughout the adaptation process by the use of jargon and visualizations, operationalizations prevailed in the Segmentation process. The drivers for change submerged in the background and, instead, discussions revolved mainly around administrative issues. The appointment of segment managers brought the original business beliefs back into the picture. However, the compartmentalization at this level confined the enabling power of the beliefs mostly to the respective segments.

Whereas business beliefs usually influence the type of action intended in response to environmental change (cf. Bartunek, 1984), resources influence whether intended action is actually being initiated. From the cases emerges a distinction between resources needed for a change in business beliefs and those required for a change in resources –the two types of strategic action considered in this research. A first type of resource, evaluation and reward systems, were used to focus organization members’ attention on the performance variables driving the new business model. For example, the CRU measure within the GRB model stimulated organization members “not to think in terms of making financial increments but to think, ‘Am I cross-sold; am I multiproduct, multiregion?” (former senior VP and marketing director Ed Holmes quoted in Charan & Tichy, 1998: 113). Reward systems can thus be used to align the interests of employees with organizational interests based on the business beliefs. For a change in lower-level resources, authorizing power seems to be a prime resource. This second type of resource, the power to allocate resources, is a prerequisite when orchestrating the rules and systems which constitute the formal organizational context. A third type of resource emerging from the data is know-how –in particular the knowledge of the means of achieving a change in business beliefs and resources. Creativity is an important part of this. In the light of the current study, this quality can be explained as the ability to select and apply structural properties, to form new combinations of such properties, and to extend and dispose of them such that discretion is increased (cf. Sewell, 1992; Whittington, 1988).

The constraining effect of resources lies mainly in them being absent or inappropriate. The following excerpt from the Segmentation case exemplifies this:

> In their efforts to give substance to segmentation, the segment managers faced some difficulties. Primary in this respect were misfits between commercial goals and strategies and the back-office infrastructure present within IBN. One of the then segment managers indicates how this caused problems: "Our operations could not handle what we sold. So we often sold much prettier things than we could actually handle operationally" [Segmentation case, Chapter 4, page 69]

Both in IBN and Citibank, the middle managers who took up the leadership roles for the *new* part of the division invented ways around the resource deficiencies. Being very ambitious and eager to show their ability to build a successful 'customer business', they acted on basis of their business beliefs rather than their resources. Adding to this dynamic seems to have been the fact that the responsibilities of these middle managers were not fully defined in the early stages of segment development and that these managers were directly involved in the definition process. While the segment/industry managers were mostly guided in their thinking and acting by new business beliefs, managers representing *incumbent* organizational dimensions (i.e. geography, product) were generally more attached to old beliefs and practices. The following quote from an interview with a district managers of IBN illustrates this point:

> "I have to be honest, I have never cared about how segment managers were thinking about things. They were only talking about fake guilders. I have always said: the profits are made within the district. […] We were not able to measure profits in terms of segments" (interview, 5 June 2002).

At the middle management level, resources were thus constraining in two basic ways: (1) by hampering strategic and recurrent action of managers in charge of novel parts of the division; and (2) by leveraging incumbent managers' efforts to persist in old practices and beliefs.

The opposite holds as well. Resources are enabling action for as much as they are available and appropriate. Different resources have been identified as enablers, some of which were already briefly mentioned above. Authorizing power seems instrumental when deciding on strategic changes in resources (i.e. resource allocation power). When the divisional board of IBN was overruled by corporate management with regard to some aspects of Segmentation, this showed the influence of authorizing power on strategic action. Formal management systems (e.g., performance evaluation & reward systems) seem especially appropriate to change lower-level business beliefs. The case data also indicate the importance of formal rules and systems for recurrent action. For example, for middle managers to conduct their day-to-day activities, i.e. orchestrating and maintaining the context for front-end organizational activities, appropriate authority and management information systems derived from the studies as key resources.

Linking the forementioned dynamics back to existing literature in general and the theoretical domain of this study in specific, some key observations can be made. The cases reveal a constraining as well as an enabling side of structure. In this regard, the findings support work aiming for a reconciliation of determinism and voluntarism in the field of adaptation (see Chapter 2). The two-sided notion of structure also confirms the structurational conceptualization. However, while structurational theorists have explained the constraining effect of structure mainly in terms of 'mindless' reliance on previously developed structural properties, the constraining side of structure emerging from the current study is more comprehensive. Mindless behavior can be explained as automatic processing, "unintentional, involuntary, effortless, autonomous, and occurring outside of awareness" (Reger and Palmer, 1996: 23). The cases indicate that even if actors are aware, they may still be constrained in their action by endogenous factors. For example, conflicting goals (aim for stability and aim for change) restrained strategic action at the decision-maker as well as the middle management level within IBN. Constraints may also arrive from exogenous factors, a category which was considered underdeveloped within structurational theory (see Chapter 2). Despite their knowledgeability, actors are still confronted with environmental and organizational factors that limit their discretion. Even though segment managers in IBN were very eager to explore every opportunity to translate their plans into action, there were some constraints they could not erase. The argument might be that these managers were just not knowledgeable enough, which brings us back to endogenous constraints. However, it seems also reasonable to assume that even the most knowledgeable actor is confronted with exogenous factors restraining his/hers actions.

Secondly, comparing the two adaptation processes, an interesting difference between the cases comes to light. In IBN, decision-makers dedicated most time and effort to issues in the realm of resources, especially to the redesign of roles and responsibilities.

In the GRB process, business beliefs were proactively used as a lever for change. For example, the mantra ‘Serving global customers globally to become their Lead International Bank’ provided guidance in the change process, and a stable basis for action over time. Years later, this mantra still served as a guiding principle for organization members’ decisions and actions. At the same time, roles and responsibilities within IBN have been further adjusted, as a result of learning processes and continued environmental change. What might be concluded from this observation is that both the deeper level of business beliefs and the surface level of resources can be the focus of attention of decision-makers during change. Business beliefs are less tangible and therefore more difficult to use as lever for change. However, due to their fundamental nature, they represent long-term drivers of behavior and might therefore be an important source of stability for organization members operating under fastly changing conditions (cf. Bartunek, 1984: 368).

A third key observation concerns the effect of structure on action *across* levels in top-down adaptation processes. Strategic choice and structuration theories are both inclined to decision-makers as the unit of analysis. This research extends this perspective by connecting strategic action at the decision-maker level to strategic and recurrent action at the middle management level. The data show how structure at one level affects action at lower levels. How action in turn affects structure is being discussed in the next part of this section.

How action affects structure

Just as there were four basic ways defined in which structure influences action, four ways in which action affects structure can be distilled from the data. Strategic and recurrent action confirm both business beliefs and resources but also challenge these structural properties. Figure 6.4 gives examples for each of these dynamics.

***Figure 6.4*: Case examples of the confirming and challenging effects of strategic and recurrent action on business beliefs and resources**

	Confirmed	*Challenged*
Business beliefs	GRB: (New) recurrent action of relationship managers	GRB: Recurrent action of C6
Resources	GRB: Working with CRUs	Segmentation: Strategic action of segment managers

The confirmation of business beliefs and resources through action reflects a tenet of structuration theory: structure as medium and outcome of action. The case studies show how both old (pre-change process) and new business beliefs were reinforced as they were mobilized in action. The confirmation of old beliefs happened in the early stages of the change projects, indicating an incubation period in the belief transition process, and also in later stages, indicating partial change in the belief set. New beliefs were confirmed through strategic actions that altered lower-level resources and business beliefs accordingly. For example, the new key belief in the added value of superior industry and customer knowledge led to the development of a new resource for all relationship managers: IKAP. The underlying business belief was communicated to these managers as well. Drawing on the new structural properties in their daily practices, relationship managers re-confirmed them. The same applies to pre-existing and newly created resources. The reward system within IBN remained largely the same in the Segmentation process. The continued use of this system reinforced behavioral patterns in line with the system parameters. The CRU, a decision making tool introduced in the GRB process, is an example of a new resource which, by proving clear value, reinforced its application in customer management processes.

Challenging effects of action on business beliefs and resources are also evident in the cases. Various drivers of such effects were identified in this research. First of all, it seems that business beliefs are more often challenged through data-driven action whereas the type of action challenging resources is more strongly theory-driven. Data-driven action is based primarily on on-the-spot external stimuli, while theory-driven action is inspired by previous experiences which have settled in the organization in the form of business beliefs (see also Chapter 2). As the current study indicates, for business beliefs to be challenged, new perceptions need to emerge that represent a fundamental and obvious contradiction. For example, the perceived environmental developments as well as the organization's performance situation preceded Citibank executives' reconsideration of their business beliefs. Resources were challenged in particular when managers were strongly driven by new business beliefs. The efforts of IBN segment managers provide a clear example in this respect:

> […] they challenged and stretched existing limits within IBN by focusing on market opportunities rather than resource constraints [Segmentation case, Chapter 4, page 69]

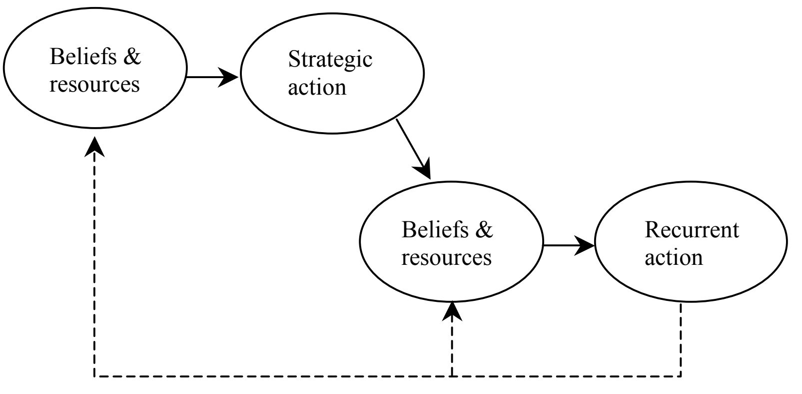
Secondly, when actors try to mobilize a structural property which then fails to instantiate in action, the very attempt challenges this property. For example, when segment managers within IBN tried to exert influence over marketing and sales activities in the branch network organization, the trouble to do so in a number of instances decreased the potential authorizing power of these managers. Besides this direct effect of strategic and recurrent action on structure, the case material also conveys an indirect effect. This effect which is related to the perceived successfulness of action seems actually more important. The creation of the C6 to give way to a customer-focused business approach in Citibank was considered ineffective which led to a reconsideration of the underlying beliefs:

> As one of the change agents, a marketing director, indicated: "[We] allowed geography to have more of an influence and simplified the organizational structure" [GRB case, Chapter 5, page 106]

While in the GRB case some measures were considered ineffective because they were too complex or too radical, in the case of Segmentation some actions were considered too restricted based on their results. In the years following the Segmentation project, several strategic actions were initiated on basis of adjusted beliefs. The theoretical framework brings an interesting viewpoint to the table. By definition, strategic action will be considered successful when the intended change in business beliefs and/or resources is actually achieved. Recurrent action will be perceived as successful when it is aligned with environmental characteristics. This will presumably lead to satisfying performance. The theoretical viewpoint is reflected in the data. To determine the effectiveness of their actions, managers focus their attention on the level(s) affected by these actions. The perceived results then serve to confirm or challenge the structure that enabled the action in the first place. The mediating effect of *lower-level* structure-action dynamics on the link between action and structure can only be revealed when applying a multi-level perspective on adaptation. Looking from this angle has brought to light the role of middle managers as catalysts of change in top-down adaptation, a factor that was not incorporated in the original theoretical framework. This role will be discussed in Section 6.4.

Structuration theorists, institutionalists, cognitive theorists, and proponents of strategic choice have all explored interrelations between structure and action within organizations. These studies usually revolve around a single level of analysis, either implicitly or explicitly (e.g., Barley and Tolbert, 1997; Sewell, 1992). The current research shows the importance of a multi-level perspective for understanding top-down adaptation. Cross-level dynamics influence how adaptation takes place. Figure 6.5 visualizes the multi-level character of the structure-action duality as it emerged from the evidence.

***Figure 6.5*: The multi-level character of the structure-action duality**



Based on the above findings, the research propositions associated with the second theme can be reconsidered.

***Exhibit 6.4*: Empirically-derived refinement of research propositions P3, P4 and P5**

P3 A change in decision-makers' business beliefs triggers a change in resources *at the middle management level*.
P4 A change in decision-makers' business beliefs triggers a change in business beliefs *at the middle management level if the deep level is taken into explicit consideration by the decision-makers*.
P5 A change in resources and business beliefs *at the middle management level* leads to *a change in resources and recurrent actions at the organizational level*.

P3 stated that a change in decision-makers' business beliefs triggers a change in resources at the organizational level. The study presented here gives way to a specification of this proposition. In both cases, change in decision-makers' business beliefs triggered change in resources at the middle management level. Certain resources seemed to be more 'ready-to-change' than others. For example, the renewal of management information systems in both IBN and Citibank required considerable time whereas physical accommodation and facilities were arranged generally easier. The difference in renewal time exposed both divisional organizations to resource misfits which caused delays and, thereby reduced effectiveness of the change initiative. With regard to P4, a change in decision-makers' business beliefs triggers a change of business beliefs at the organizational level, the contribution of middle manager emerges from the case studies as a critical success factor. In this vein, P4 is rephrased (middle management level rather than organizational level) and conditionalized (if deep level is explicitly focused on). While middle managers in new roles seem most important as catalysts of change, managers in existing positions were predominantly associated with inertial effects. Finally P5, which stated that a change in resources and business beliefs leads to a change in recurrent actions at the organizational level, has been further specified on basis of the results. The middle management level is added as a key intermediary level (cf. Balogun, 2003).

6.4 Theme 3: How middle managers influence top-down adaptation

As was stated before, in organizational studies on top-down, second-order change, middle managers have often been singled out as the primary source of resistance (Balogun, 2003; Huy, 2002; McKinley and Scherer, 2000). While in first-order change processes, middle managers have been portrayed in supporting roles, interpolating structures and systems, in second-order adaptation they are usually considered to be part of the inertial system

(Biggart, 1977; Miles, 1997). Recently, some work has appeared that suggests a role for middle managers in maintaining continuity during second-order change. Middle managers' attention to employees' emotions in such change seems to increase the chance of a smooth transition (Huy, 2001; 2002). The current research yields a number of interesting findings regarding the role of middle managers in top-down, second-order adaptation processes. Three basic contributions of middle managers to adaptation can be identified. First, supporting the classic view on these managers' impact on second-order change, both case studies reveal resistance at the middle management level. This resistance showed in managers' reluctance to get involved in development processes and enact new rules. The second contribution is in line with the more recently considered role as guardian of day-to-day operations. And, finally, middle managers have shown to leverage second-order change as well. For example, within the Segmentation project, the segment managers played a key role in moving the division away from existing practices toward new ones.

When examining how the different contributions of middle managers relate to each other, the distinction between incumbent and novel positions at the middle management level appears as an important one. While incumbent positions already existed before the adaptation effort, novel functions are those that are newly created in the light of realignment with the environment. Managers in incumbent positions, who were often veteran managers, caused most resistance in both the Segmentation and GRB processes. These managers had the responsibility to keep operations up and running while being confronted with fundamental changes in rules imposed from the top. They were formally in charge of the implementation of changes in the behavior of their subordinates as well as their own behavior while often lacking motivation and means. In contrast, managers in new functions were usually newcomer managers who were specifically hired to substantiate decision-makers' plans. They were committed to change rather than to existing beliefs and practices.

To understand how the different contributions of middle managers come about, the structure-action duality again offers an interesting viewpoint. Managers of incumbent organizational units (in the cases: district managers, country managers) relied heavily on existing business beliefs and resources for *recurrent* action. However, these managers were also expected to undertake *strategic* action in line with decision-makers' plans. The confrontation between the old and the new structure gave rise to some resistance, both within IBN and Citibank. While middle managers in incumbent organizational parts had to balance different structural complexes (cf. Sewell, 1992), middle managers in the new organizational parts were mainly occupied with extension and refinement of the new structural complex. Through strategic action, these managers actively contributed to the establishment of new business beliefs and resources. From the data emerge two key ways in which these newcomer managers leveraged change. First, they championed decision-makers' business beliefs and derivative beliefs developed for specific divisional domains.

Second, these managers played an instrumental role in the development of new resources (e.g., MIS, authorizing power). In particular their tendency to use the business beliefs rather than resources as a starting point seems to have been a significant lever for change.

6.5 Conclusion

The empirical research has brought in specifications with regard to structure-dynamics over time and across levels. Middle managers played an important role in the top-down, second-order adaptation processes under consideration. They shaped the adaptation effort through (1) resisting change; (2) safegarding continuity; and (3) leveraging change. These contributions originated from different parts of the divisions. Managers in incumbent positions were more inclined toward resistance. The fact that they were in charge of keeping operations running seems to have been instrumental in this respect. Managers in newly created positions –positions substantiating new business beliefs- were more inclined toward change. In both cases, the managers selected for these roles were relatively young, ambitious and had a track record. Their drive and creativity seem to have had a significant effect on their strategic actions by which they orchestrated the organizational context. Now that the key themes and patterns have been discussed, they will be considered specifically in the light of the overall research question and issues posed in the introductory chapter.

CHAPTER 7
LOOKING BACK AND LOOKING FORWARD

Although the impact of cognition in organizational adaptation processes has been widely acknowledged, there is still a lot to learn about how it plays a role. The study reported was aimed at gaining a better understanding of the pervasive influence of cognition in adaptation. A theoretical framework was developed which framed adaptation in terms of structure-action dynamics. Through the cognitively anchored framework, adaptive efforts in divisions of two financial conglomerates were examined. Based on the findings, the original framework was extended and refined. In the current chapter, a number of issues is dealt with to conclude the thesis. The first three sections look back on the research. Section 7.1 summarizes the key outcomes of the theoretical and empirical explorations. Framing adaptation as interactions between structure and action over time and across levels surfaced several aspects which, as is argued here, deserve more attention in strategy research. Section 7.2 revolves around the managerial implications of the study. A number of virtues and pitfalls of cognition are discussed, and managers are alerted to the fine line between them. The third section is dedicated to the limitations of the research. By explicating the study's boundaries, the generalizability of the findings is assessed. Building on the limitations and implications, the fourth section looks forward, containing an agenda for future research. The fifth and last part of the chapter concludes the research by returning to the title of the thesis –Intelligent Adaptation- to indicate how this concept should be interpreted in the light of the current research.

7.1 Summary of key findings

With regard to the pervasive influence of cognition in adaptation, three main themes were discussed in the previous chapter. The key underlying patterns are summarized here and embedded in existing strategy literature.

Theme 1: Key findings

The first theme addressed how cognition changes in adaptation. Table 7.1 presents the three patterns on which this theme has been based, their theoretical and empirical grounding, and their contribution to the existing body of knowledge in the strategy domain.

***Table 7.1*: How cognition changes in adaptation –key findings**

Key patterns	**Theoretical contribution**	**Practical contribution**
I How perceptions and business beliefs interrelate	*I How perceptions and business beliefs interrelate*	*I How perceptions and business beliefs interrelate*
1 There are basically two types of perceptions which play different roles in adaptation. Data-driven perceptions are more likely to trigger new business beliefs whereas theory-driven perceptions are more likely to confirm the existing ones (see § 6.2: 142-145)	**1** The two types of perceptions have been identified in organization literature (Gavetti and Levinthal, 2000; Walsh, 1995; Weick, 1995). Either/or view on data- & theory-driven perceptions prevails. Cases reveal both roles of perceptions at the decision-maker level	**1** Not either or but both types to break away from the past and develop new business beliefs, and create momentum for the newly developed business beliefs to prevent people from reverting back to old beliefs. Dedication to data-driven perceptions in early stages of adaptation increases likelihood of successful change
2 Business beliefs function as filter, shaping observations and interpretations (i.e. perceptions) (see § 6.2: 142-145)	**2** Business beliefs have been portrayed as filter in strategy work (Bettis and Prahalad, 1995; Hambrick and Mason, 1984). Interviews with key actors indicate this role, and the changing effects throughout different stages of adaptation	**2** A dynamic perspective on the role of business beliefs as a filter reveals different effects in adaptation. While beliefs are likely to trigger within-the-box perceptions in the early stages of adaptation, successful change is characterized by a shift to a new set of beliefs, and thus of a new filter. Shaping perceptions, a new reinforcing cycle appears. Awareness of impact of belief system
3 Perceptions and business beliefs influence each other over time in second-order adaptation (see § 6.2: 142-145)	**3** Basic insights into the effect of beliefs on perceptions (e.g. Hambrick and Mason, 1984) and into changing cognition in adaptation (e.g. Barr, 1998; Barr et al., 1992; Isabella, 1991). Cases signal mutual influences of perceptions and business beliefs over time at the decision-maker level (see Chapters 4 and 5)	**3** Distinction between perceptions and business beliefs and insight into their interrelations allow for a better understanding of the role of cognition in adaptation. Managers should be aware of the effects of cognition, throughout adaptation. Data-driven perceptions help to break through existing frames; theory-driven ones to reinforce newly emerging beliefs

Key patterns	**Theoretical contribution**	**Practical contribution**
II How new business beliefs get established	*II How new business beliefs get established*	*II How new business beliefs get established*
1 The establishment of new business beliefs involves four basic sets of activities: reality contemplating, reality recreating, reality constituting and reality maintaining activities (see § 6.2: 145-155)	**1** The different activities have been described in organization literature and case studies have been used for their support. Change in cognition has been portrayed as a staged process (e.g., Isabella, 1991). All activity sets have been found in each of the case studies, to a more or lesser extent.	**1** The empirically-derived notion of changing cognition offers insight into a complex and intangible process. It shows the importance of a multi-level perspective for academics and practitioners alike to understand how new business beliefs emerge. It also indicates the entwinedness of strategizing and organizing processes, as these two processes are reflected in the different sets of activities
2 Financial performance is a key intervening factor in the establishment of new business beliefs. If environmental developments are perceived by decision-makers as having a negative impact on performance, data-driven perceptions will gain importance triggering new business beliefs (see § 6.2: 156)	**2** Strategic change/renewal literature has indicated difficulties must rise to crisis proportions before fundamental change occurs (e.g., Grinyer and McKiernan, 1990; Hedberg, Nystrom and Starbuck, 1976; Mezias et al., 2001). This argument stems ultimately from Cyert and March (1963). The data support existing literature, as the performance crisis in Citibank seemed to provide a stronger basis for change in beliefs than the expected performance downturn within IBN	**2** The current research supports previous findings regarding the mediating role of financial performance in second-order adaptation. It suggests a difference beween actual and expected performance downturn. The empirical value resides in the acknowledgment by decision-makers of the importance of a proactive stance in creating a sense of crisis before the crisis actually occurs

Building on existing literature, change in decision-makers' and organizational business beliefs was defined as a prime focus in the study (see Chapter 2). Besides business beliefs, perceptions were included in the research framework to get a deeper understanding of the role of cognition. The distinction between beliefs and perceptions, which often tends to remain obscure in adaptation studies, provided some interesting insights. The extent to which perceptions are influenced by the current information environment versus past experiences determines the effect of these perceptions on business beliefs. Business beliefs are likely to get altered if significant environmental change has taken place and if (expected) organizational performance gives way to such reconsideration. Under these conditions, decision-makers are found to be more receptive to the actual developments going on in their surroundings. In the adaptation processes under consideration, this showed for example in peer company visits by decision-makers (IBN), the hire of strategy consultants (IBN/Citibank). In contrast, business beliefs are likely to be confirmed if past experiences drive perceptions. In the Citibank case, this led to a delay in action-taking. Satisfiying overall performance led corporate-level executives to underestimate the impact of changes in especially the corporate banking industry. Performance at time T is an indicator of the fit between organizational practices and environmental characteristics at T-1. However, as also appears from previous work in this field, decision-makers tend to attribute performance at T to the current situation as well (Barr et al., 1992). Besides triggering change in business beliefs and preserving existing beliefs, perceptions can serve to validate emerging beliefs. In both of the cases, environmental analyses were conducted to gain a more thorough understanding of dynamics underlying strategic prescriptions that were being developed. These analyses helped to build ground for these prescriptions.

The findings gave way to a refinement of some of the original research propositions (see Chapter 6). The cases indicate the importance of a perceived need for change. Changes in external conditions first need to be observed, and then interpreted as an actual threat to the organization's continuity in order to create a sense of emergency (cf. Dutton and Jackson, 1987; Jackson and Dutton, 1988). This seemed a condition for second-order change in business beliefs. Based on this insight, P2 was extended. From the study emerged another insight into how cognition evolves in adaptation. This insight was visualized as four sets of activities linked across time. The empirically-derived notion of changing cognition in adaptation indicates the entwinedness of deep and surface levels. Reality contemplation and recreation activities are about actually changing decision-makers' cognition (deep level), whereas reality constitution and maintainance activities concern the insertion of changed cognition into deep and surface level organizational elements. It thus portrays the evolution of cognition in adaptation as a multi-level process, spanning decision-maker and organizational levels of analysis. This finding is in line with previous organizational studies that have emphasized the importance of taking into account strategy creation processes as well as organizing processes for a comprehensive account of adaptation (Dijksterhuis, Van den Bosch and Volberda, 2003; Whittington and Melin, 2003).

Theme 2: Key findings

The second theme involved the conception of adaptation as multi-level dynamics of structure and action. In Chapter 6, various adaptive dynamics were explained in terms of interactions between business beliefs and resources (structure) and strategic and recurrent actions (action). Table 7.2 offers a summary of the main patterns discerned and their theoretical and empirical contribution.

***Table 7.2*: Top-down adaptation as multi-level dynamics of structure & action –key findings**

Key patterns	Theoretical contribution	Practical contribution
I How structure affects action	*I How structure affects action*	*I How structure affects action*
1 Business beliefs and resources both constrain and enable strategic and recurrent action (see § 6.3: 157-165)	**1** The dual effect of structure on action has been emphasized by structurational theorists (see § 2.2). In cognition literature, constraining effects of business beliefs have received much attention (e.g., Starbuck and Milliken, 1988). Both cases provide ample example of these effects, at decision-maker as well as middle manager level	**1** Cross-level influences of structure on action indicate the value of a multi-level perspective on adaptation. The combination of structurational, strategic choice and cognitive insights offers a more comprehensive view on structure-action dynamics in times of adaptation. A misfit between business beliefs and resources seems to undermine the effectiveness of change efforts. Active use of enabling features and careful management of constraining features of structure emerge as critical actions for successful change
2 Business beliefs and resources play different roles in adaptation; business beliefs are drivers of change, resources are means for change (see § 6.3: 157-165)	**2** These roles have been identified separately in adaptation literature. The emergence of new business beliefs as drivers was discussed by e.g., Gioia and Chittipeddi (1991) and Bartunek (1984). The cases provide evidence for both roles. In IBN, both at the decision-maker and middle manager level; in Citibank mostly at the decision-making level	**2** Looking at business beliefs and resources as two interlinked sets of structural properties, with complementary roles in adaptation. Having appropriate resources in place might be sufficient in the short term but not in the longer term.
3 Business beliefs persist over time. They therefore are a potential source of long-term stability at a deep level. Resources, which represent closer-to-surface organizational elements, usually have a shorter life span. Both sets of structural properties are possible levers for change in adaptation processes (see § 6.3: 157-165)	**3** Endurance has been recognized as a key feature of deep-level business beliefs by numerous scholars (e.g., Weick, 1979; Prahalad and Bettis, 1986). It has been argued that second-order change should be managed at the level of 'rules' rather than at the level of outcomes of these rules (Heracleous and Barrett, 2001; MacIntosh and MacLean, 1999)	**3** There are different levels at which adaptation can be managed. Business beliefs represented the deep level in the current research, while resources reflected a closer-to-surface level. As deeper level elements are less tangible and more conceptual, there is a tendency to focus on surface level elements –the Segmentation case provides an excellent example. For successful and lasting change, a focus on both is necessary.

Key patterns	Theoretical contribution	Practical contribution
II How action affects structure	*II How action affects structure*	*II How action affects structure*
1 Business beliefs and resources are confirmed or challenged in strategic and recurrent action (see § 6.3: 165-170)	**1** Structuration theory states that structure is confirmed in action. Cognitive theory stresses the reinforcement of beliefs through action. Both cases offer ample example of how beliefs and resources were confirmed and challenged throughout the change processes	**1** The challenging effect of action on structure mainly emerges between organizational levels. As there is a natural inclination toward focusing at a particular level (as there is toward focusing within disciplines for example), managers should be aware of the consequences of such a focus.
2 Effects of action on structure emerge at one particular organizational level as well as across organizational levels (see § 6.3: 165-170)	**2** Combining basic structurational principles with a multi-level cognitive perspective focuses attention on cross-level dynamics of structure and action	**2** Incorporating multiple organizational levels is beneficial in analyses of action-structure effects, both for academics and managers

As evidenced by the cases, the basic dynamics are: (1) business beliefs and resources constrain strategic and recurrent actions; (2) business beliefs and resources enable strategic and recurrent actions; (3) strategic and recurrent actions confirm business beliefs and resources; (4) strategic and recurrent actions challenge business beliefs and resources. With regard to these dynamics, some issues of interest were raised. First of all, business beliefs and resources constrain/enable action in different ways. Business beliefs usually influence whether and what action is being undertaken (see Chapter 6), constraining or enabling action in those respects. Resources have been said to influence whether intended action is actually been initiated. The availability and appropriateness of resources influences the extent to which business beliefs are mobilized. Secondly, in line with the first issue, a fit between business beliefs and resources drives adaptation. However, misalignments seem quite common as it takes time to define and install the appropriate resources, and newly adopted business beliefs are difficult to transfer. As appears from one of the cases, decision-makers can be inclined toward changing resources to realign the organization. Lacking the right business beliefs for their support, new resources seem only effective to a certain extent. The opposite – a lack of appropriate resources- has yielded an interesting phenomenon. If managers lack the formal systems to convert their beliefs into action, creativity in circumventing these resource constraints may still enable them to do so. The fourth and final key finding pertains to the multi-level nature of structure-action relations. The empirical study shows how changes in structure at one level affect both structure and action at another level. The same applies to the way in which action influences structure. Strategic and recurrent action at one level feed back into structure at another level. This finding displays the added value of a multi-level perspective on adaptation. The findings related to the second theme confirm the basic research propositions on structure-action dynamics as presented in Chapter 2. Moreover, they specify these propositions in terms of when and how these dynamics come to pass. P4, which states that a change in decision-makers' business beliefs triggers a change in business beliefs at the organizational level, touches on a key matter. While more difficult to address due to their intangible and, often, subconscious nature, business beliefs seem a powerful and necessary lever for change.

Theme 3: Key findings

The cross-level dimension of adaptation is also a pillar of the third theme. This particular theme pivots on the role of middle managers in second-order adaptation. Table 7.3 shows the main results.

Table 7.3: **How middle managers influence top-down adaptation –key findings**

Key patterns	**Theoretical contribution**	**Practical contribution**
I Three basic contributions of middle managers **1** Resisting. Change jeopardizes constellations of power. Some middle managers therefore resisted the adaptation process.	*I Three basic contributions of middle managers* **1** Several strategic renewal studies in the late 1980s and early 1990s were dedicated to resistance at the middle management level in times of change. Both the cases reveal resistance among middle managers, which ranged from an unwillingness to participate in change to active counteracts	*I Three basic contributions of middle managers* **1** The present study supports earlier work on this particular contribution of middle managers. It draws decision-makers' attention to middle management as a potential source of upheaval. Neither the conceptual approach of Citibank nor the more surface level perspective of IBN could prevent some resistance
2 Stabilizing. Operating between top- and front-end management, middle managers faced the task of combining continuity and change	**2** This contribution has been recognized more recently in strategy literature (e.g., Balogun, 2003; Huy, 2001). In this work, the value of middle management as a source of stability in turbulent times is stressed	**2** The current research also supports more recent work on the stabilizing role of middle managers. Active use of middle managers' knowledge and networks in this respect seems a key learning for decision-makers
3 Leveraging. Operating between top- and front-end management, middle managers were able to add to the diffusion of new business beliefs from the top down	**3** The current research shows the added value of middle managers as levers for change. E.g., segment managers in IBN proved their value in this respect	**3** The study adds a more proactive involvement of middle managers in adaptation. Their closer connection to the front-end side of the organization allows middle managers to operationalize high-level ideas and rules
II Incumbent versus new positions **1** The contribution of managers in incumbent positions generally differed from the contribution of managers in new roles within the organizations. While the former were mostly associated with type 1 and 2 contributions, the latter more often acted as levers for change (type 3)	*II Incumbent versus new positions* **1** This pattern was inductively derived. It is based on the various insights from both case studies in how new business beliefs were diffused and new resources developed beyond the decision-making level	*II Incumbent versus new positions* **1** This contribution in top-down, second-order adaptation has so far been underexplored in strategy literature. The research enriches insight of scholars and practitioners in how middle managers can actively help significant change to take place

Existing literature on top-down change processes mostly revolves around inertial effects of middle management involvement. From the present study emerge additional roles. In line with recent work (Huy, 2001) the stabilizing role of middle managers has been exposed. As guardians of day-to-day operations, managers between the decision-making and front-line levels help to maintain continuity in times of adaptation. However, as appears from the present study, middle managers can also serve as catalysts of change. They do so in basically two ways. First, they translate high-level business beliefs into lower-level rules and procedures. Second, they develop business beliefs for specific domains or disciplines which are in accordance with those created at the top level. There seem to be structural causes attached to the different middle management roles in adaptation processes. Firstly, administrative heritage comes out as a probable cause. Managers in existing roles, in existing organizational departments/units are confronted with old structures which need to be fundamentally renewed. In contrast, managers in new positions generally start with a clean slate. Decision-makers can select managers for such positions who have beliefs similar to the ones promoted from the top. This will increase the chance of them actively supporting the change effort. A second cause, related to the first, regards responsibilities. If it is the responsibility of a manager to keep daily operations running, existing beliefs which have proven successful in the past offer more certainty and comfort than new business beliefs. If a manager has been hired to give substance to a new role, the new business beliefs are part of this role's rationale. Thirdly, the data hint at the level of involvement in the development of business beliefs as a structural reason for a difference in contributions among middle managers. Managers closely involved in all four types of activities (contemplation, recreation, constitution, maintenance) seem more supportive of new business beliefs than managers who are involved in the organizing activities only. This finding adds to studies revolving around the strategic role of middle management in organizational change processes (e.g., Floyd and Wooldridge, 1997). The different contributions of middle management which manifest at the surface level relate to different degrees of *cognitive adaptability*. Tripsas and Gavetti (2000) use this term to explain why cognitive dissonance appeared between senior and middle managers in the Polaroid Corporation. The authors suggest that differences in cognitive adaptability are caused by difference in signals about the market received at these different organizational layers. Their idea of hierarchy in cognition is expanded in the current research by the recognition of causes linked to specific contributions in adaptation. As the study at hand shows, these contributions might well derive from the same hierarchical level.

In prior research on adaptation, scholars have focused primarily on actions and outcomes. Cognitive accounts of adaptation have mostly been confined to static reports on the role of decision-makers' cognition in the relation between environment and organization. By focusing on interaction between cognition and action over time and across levels, the research presented here permits a more comprehensive analysis of adaptation. The study suggests how a change in decision-makers' cognition results in a change in organizational action. Perceptions and business beliefs were distinguished to understand how cognition changes in adaptation. Business beliefs and resources were identified as key structural properties underlying strategic as well as recurrent action. Mutual dependencies between structural properties and between structural properties and action were discussed to indicate how strategic and recurrent actions emerge. Finally, action was considered to feed back into structure, confirming or challenging the very basis of its existence. From the empirical study derived the key role of middle managers, both in constraining change and enabling it. Differences in cognitive adaptability among these managers were attributed to their specific role in adaptation.

What are the findings regarding the combination of strategic choice theory, structuration theory and cognitive theory? Strategic choice theory sets the outline of the study by focusing attention on decision-makers' proactive and opportunistic responses to changing environments. Structuration theory served to frame adaptation in terms of interactions between structure and action. Finally, cognitive theory knit together the cognitive threads of the former two theories and added organizational cognition as a key focus. By integrating insights from these three theories, contributions have been made to each of them. Child (1997) points out that strategic choice can be a useful corrective to extreme views of determinism and voluntarism as it " draws attention to the inter-dependence of choice and constraint in organizational behaviour" (1997: 72). From the current research, structuration theory appears as a valuable perspective to substantiate strategic choice's tenets in this respect. In turn, structuration theory's potential contribution to adaptation research increased with the adding of a multi-level dimension to the structure-action duality. Cognitive theory gained considerably by the grounding of cognitive dynamics in the broader context of action (cf. Meindl et al., 1994; Walsh, 1995). Also, knowledge about the connection between decision-makers' cognition and organizational cognition was deepened through strategic choice and structuration theory. In sum, the combination of these theories has been fruitful and deserves further exploration in future research.

7.2 Managerial implications

The present study on top-down, second-order adaptation has a number of implications from a decision-maker perspective. Framing adaptive efforts in terms of structure-action dynamics yields some interesting insights into how decision-makers can achieve organizational transformation. The development and establishment of new business beliefs throughout the organization seems key in this respect.

How decision-makers can develop and establish new business beliefs

How can executives create a critical distance to existing business beliefs to change them fundamentally (cf. Whittington, 1988)? In the GRB case, a severe performance crisis helped to renounce core assumptions about the business. However, aiming for a crisis in order to change business beliefs is quite an extreme option. In the Segmentation case, where performance was still satisfying, the awareness of decision-makers concerning the inappropriateness of the IBN business model in the longer run created some distance to existing business beliefs. In both cases, the involvement of strategy consultants seems to have been instrumental in creating enough distance for change. In contrast with organizational actors, strategy consultants are trained in critically evaluating existing business models of organizations. In the early stages of adaptation, they challenged deeply engrained beliefs, directed decision-makers' attention toward key environmental developments, influenced these managers' interpretations of the developments, and helped to overcome cognitive inertia.

Creating distance to existing structural properties is associated with contemplation. With regard to recreation, there are also some lessons for managers to be gained from the research. Defining the right interface between the recreation effort and the organizational and environmental context seems critical. Some space between existing practices and recreation activities allows for an open mind. In the Segmentation case, this happened through the formation of a project team at the decision-maker level and through autonomous segment units at the middle management level. In the GRB case, recreation took place to some extent at the corporate level which lacked the direct connection with divisional practices. Input for recreation also derived from the work of the task teams which were in their activities somewhat distanced from daily operations. At the same time, completely isolating the recreation effort from the organization would have prohibited decision-makers to 'borrow' business beliefs from other organizational units. The GRB case clearly showed the advantages of such transposition. Serving global customers globally had already shown its value in the WCG which decreased the risk of failure for the particular set of beliefs in the eyes of decision-makers and increased efficiency in implementation. In the case of Segmentation, decision-makers adopted beliefs that had proved their validity in competitor firms. Directly through company visits, and indirectly through assistance by strategy consultants. Sewell (1992) suggest that managers gain their discretion by creating and actively exploiting tensions between structural properties. The cases give some insight into how this idea translates into practice. In the strategy-making process, IBN's segment managers were confronted with misfits between their business beliefs and the resources available. Rather than adjusting their beliefs to the constraints, in several instances they enforced changes in infrastructure to match their ideas about how IBN could be successful in the particular client segments.

Constitution in this research referred to the anchoring of a new reality that has emerged among decision-makers into the organization (unit)'s very structure and working. Two key observations derive from the case studies. Decision-makers are inclined to focus on roles and responsibilities when trying to constitute their new business beliefs. Ideas on how an organization can be successful in its business tends to be framed in terms of functions and how these functions interrelate. Such organizational elements are relatively tangible, and changes in them are generally easy to explain. Formal systems tend to lag behind for the simple reason that it takes time to change them drastically. Especially in the Segmentation trajectory, the complexity and scale of this type of changes seem to have caused some delays. This was confirmed in the formal evaluation report on Segmentation. The third anchor considered in this research, lower-level business beliefs, emerged from the data as a less prominent lever for change within IBN. Only in a late stage of the change trajectory, a change management consultancy firm was hired to create division-wide understanding of and commitment to the changes. Up to that point, communication to divisional members about the plans was largely ad hoc. However, for organization members to change their thinking about the business and how to succeed in it in line with decision-makers' business beliefs, they need time to understand these beliefs and commit themselves. Both cases indicate the importance of trust in the judgment of higher-level management if second-order change is aimed for. Such change often leads to drastic shifts in people's positions and work processes which need to be supported by these people themselves. The GRB case shows some mechanisms for changing organization members' business beliefs beyond the decision-making level. A new and consistently, over time and place, applied vocabulary, clear and easily accessible visualizations of the rationale behind the new business model, compelling evidence in support of the new organizing principles, face-to-face encounters of key actors of the new organization in a controlled environment, and the continuous confrontation of organization members with the new rules and the underlying vision have been mentioned in this respect. Decision-makers should be aware of the leveraging effects of mechanisms for second-order change in their organizations.

Finally, the data offer some clues about effective maintenance of new realities. Both positive and negative feedback mechanisms have been used by decision-makers in the adaptation processes under consideration. Effective retention techniques based on positive feedback seemed to have been ad hoc customer feedback and increased satisfaction among employees themselves. Somewhat later on, formal reward systems served as positive feedback mechanisms. Effective retention based on negative feedback mainly derived from strict top-down correction of behavior associated with old rules. Besides framing adaptive efforts in terms of structure-action dynamics, applying a multi-level perspective also adds value from a managerial perspective.

The practical value of a multi-level perspective on adaptation

Using a multi-level approach to adaptation offers decision-makers at least two advantages. First, it allows them to explicitly consider the role of middle managers in the change process. Taking into consideration both the constraining and enabling effects that middle managers can have on adaptation, decision-makers may be able to anticipate inertial forces as well as optimize middle management's contribution to change. The distinction between incumbent and new positions which has derived from the research gives decision-makers insight into different sets of challenges and opportunities at the middle management level. In the cases, managers in incumbent roles had to balance continuity and change. Representing the existing organization, they were key in keeping operations running. At the same time, changes in the way theorganization was run had to be incorporated by these same managers. The research confirms the outcomes of several previous studies on second-order organizational change which indicated organization members' preference for stability (e.g., Berry, 1994). Managers in incumbent positions emerge from the research as a primary locus of resistance. On the other hand, managers in new roles were primarily involved in creating change. Although they were still partly operating under the old conditions, as some resources were still in the making, many of these managers were strongly committed to changing the way business was done. Managers in new positions emerge from the study as a primary source of creativity and renewal. Keeping in mind the skills and personalities that match each of these fundamentally different positions at the middle management level, decision-makers might increase the chance of successful adaptation.

The second advantage of a multi-level perspective on adaptation resides in the hierarchical notion of structure that it entails. Top-down, second-order adaptation has been portrayed as a process in which top-level business beliefs were cascaded down the organization (unit), enabled by a particular set of resources. While at the decision-maker level, business beliefs translate into high-level vision statements and plans, lower down in the organization (unit), they are reflected in more concrete rules as well as in formal systems. Together, these layers of resources (formal rules, systems) and underlying business beliefs (cf. Sewell, 1992) could be imagined as constituting a hierarchy. Once implemented, this hierarchy allows for a modular approach to adaptation. This means that in case of a misalignment between organization and environment, those business beliefs that have run obsolete are traced and replaced by more appropriate ones. This should then be reflected in the establishment of new rules and/or systems which realign organization and environment. If a belief becomes obsolete and the accompanying rules and systems are changed, other layers of the hierarchy of business beliefs and resources may well be conserved. The GRB case provides an illuminating example. During the GRB adaptation proces, the belief emerged that Citibank should serve global customers advanced in financial management. In the business environment of the mid 1990s, this target market would benefit most from the bank's global reach and expertise. Changing environmental conditions partly invalidated this business belief over time. The development of the Internet economy led to the rise of companies with an almost instant need for cross-border financial products and services. In response to this development, the original GRB customer criteria were adjusted to allow for inclusion of the so called 'rising stars'. At the same time, the higher-level beliefs that had given way to the criteria remained in place. The belief in 'serving global customers globally' was perceived as still being valid.

7.3 Limitations of the study

The research reported here is subject to a number of limitations. First of all, the use of a single industry as research context may have eroded the generalizability of the findings. The banking industry is a semi-regulated service industry which has transformed from a stable and predictable business environment into one characterized by increasing turbulence, intensifying competition, and advances in technology. It remains to be seen whether the insights will apply to other kinds of organizational settings. For example, decision-makers in sectors with a long history of high-paced changes in conditions might have built up a different set of adaptation skills which would be likely to influence their thinking and acting in times of adaptation. The same counts for executives of firms operating in traditional, stable industries.

A second limitation concerns the type of adaptation process that has been examined. Both of the change processes were top-down, deliberate adaptation efforts. Bottom-up initiatives resulting in a new strategy and structure might reflect distinct dynamics of cognition and action due to, for example, the fact that information-processing and decision-making in such initiatives are likely to take place at different levels within the organization. Environmental developments may lead middle and front-level managers to invent and experiment with new organizing principles. Formalizing such principles, however, requires the involvement of people with the appropriate authorizing power (Floyd and Lane, 2000). Also, the fact that this research revolved around top-down change processes entailed a strong hierarchical focus. The study was less concerned with horizontal information flows which might throw a different light on the role of middle managers' cognition.

The next limitation concerns the exclusion of financial performance effects of adaptation in the present research. Performance effects of organizational changes are generally considered a complicated matter. Intervening factors such as economic growth and the impact of deregulation obscure sight on such performance effects. In this study, performance effects were limited to the changes in employees' recurrent actions caused by the adaptation. This leaves room for improvement. When aiming for financial performance measurement, using benchmark analyses to establish a BU's financial performance in relation to the performance of similar BUs might offer a solution. However, this approach requires continuity in the strategy and structure of the reference firms or divisions. Another solution might be to correct financial performance data of the particular firm or division for the main intervening factors. Even if the main factors could be removed, however, it is still difficult to indicate the precise performance consequences of a adaptation trajectory.

A fourth constraint of the research concerns the method of study. The case study methodology limits the number of observations. Because the field of study is still in development, instead of searching for generalizable results, the strength of this research is in providing contextualized and textured information. The interviews and document analyses allowed for the exploration of structure and action over time and across levels. Qualitative methods do not provide the accuracy of quantitative techniques. In this vein, the merits of quantitative analysis for substantiating our qualitative interpretations are discussed in section 7.4.

Finally, a choice was made regarding the type of perceptions and beliefs under consideration. Perceptions were a generic category comprising environmental characteristics. In practice, perceived environmental characteristics reflected a broad range of issues such as technology, regulation, economic outlook, competitors' actions, and demographic factors. The choice for business beliefs, defined as beliefs about the nature of the business and how to succeed in it, was grounded in previous organizational studies. Choosing particular contents of cognition directs attention away from other potentially relevant categories. Although it is acknowledged that this restricts the generalizability of the findings, the case material shows the relevance of these particular types of perceptions and beliefs in adaptation processes. The forementioned limitations reveal potentials for future research.

7.4 Agenda for future research

Based on the findings, additional work in the area of cognition in adaptation seems warranted. A number of research opportunities can be identified. The current research tapped strategic choice theory, structuration theory, and cognitive theory to explore the role of cognition in adaptation processes. These theories entailed some specific assumptions and emphases. Decision-makers within firms were considered key actors in information-processing activities and their behavior was assumed to be purposeful. Their schemes (i.e. business beliefs) and resources were assumed to shape their action. Other theories might provide different perspectives on the role of cognition in adaptation. An interesting viewpoint might derive from institutional theory. Institutionalists have started to acknowledge the impact of firm-specific internal organizational dynamics counting for within-sector variation (Greenwood and Hinings, 1996). They bring into play more explicitly existing commitments and interests of organization members to explain how adaptation takes place.

The research methodology of the present study also provides opportunities for elaborating further research directions. For the purpose of the study, the overall rationale behind strategic action was used as a proxy for decision-makers' business beliefs. Using a global rather than an aggregated measure of beliefs, this thesis follows the recommendations of several cognitive theorists (Meindl et al., 1994; Schneider and Angelmar, 1993). The'depersonalization' of business beliefs has the consequence of excluding individual-level factors influencing the role of cognition in adaptation. It might prove valuable to examine such factors to explain why this role varies between organizations. The effect of beliefs on action was explored in the research. Focusing on actions rather than decisions was a deliberate choice when determining the research design. Examining how adaptation takes place, actual rather than intended actions seemed an appropriate focus. However, future research might address the cognitive dimension of decisions that do not instantiate in practice. Fundamental differences between decision-makers' business beliefs and those of middle managers might be revealed as a cause.

A third set of recommendations for future adaptation research evident from this study relate to the integrative framework. In the current research, emphasis was on the influence of structure on action. However, there were some findings regarding the impact of action on structure at as well as across organizational levels. An extensive examination of how strategic and recurrent action confirms and changes the structural properties initially shaping these actions represents an interesting research avenue. Indeed, researchers have suggested that organizational restructuring has the consequence of confirming business beliefs in the eyes of decision-makers (McKinley and Scherer, 2000). The emergence of so called 'cognitive order' at the decision-making level is presented as an explanation for the chronic nature of adaptation in many contemporary organizations. How the influence of action on structure helps to produce self-reinforcing loops of adaptation is an interesting question. McKinley and Scherer (2000) also explore the contribution of organizational restructuring to long-term environmental turbulence. In terms of the integrative framework, this shows in the effect of a change in recurrent action at the organizational level on environmental characteristics.

Furthermore, investigating bottom-up adaptive efforts was touched on before as a potentially interesting topic for research. Such adaptation processes would be expected to show different structure-action dynamics. For example, signalling changes in customer behavior might lead front-end managers to change their recurrent behavior, triggering retrospective rationalizing dynamics at the decision-making level. Bartlett and Ghoshal (1993)'s well-known study of Asea Brown Boveri (ABB) reveals such an entrepreneurial role of front-line management. While outside the scope of the present study, the explicit consideration of this management level in the light of the integrated framework would be a logical next step. A last possible extension of the research discussed here concerns the type of response to environmental developments. Adaptations aimed at cost reduction might be easier to push through at higher levels while evoking resistance at lower levels. In these cases, beliefs are likely to change quicker higher up in the organization while uncertainty and agitation at lower levels might hamper a change in deep structure. Revenue-increasing processes would be expected to show an opposite pattern. Inertial forces at the decision-making level are likely to be stronger in such processes whereas the new rules which generally allow front-end employees to serve customers better are enacted relatively easy and quickly.

7.5 Conclusion

This research was about the role of cognition in organizational adaptation processes. A multi-level and processual approach to this theme served to understand how managerial and organizational cognition and adaptation were related. Decision-makers' perceptions and business beliefs were identified as both constraints and enablers of strategic actions. Middle managers emerged in the study as key actors in top-down, second-order change. Depending on a number of issues, they delayed changes by resisting them, they acted as an important source of stability in the midst of change, and they actively leveraged change. The effect of business beliefs on action was considered to be mediated by resources. Resources either turned out to reinforce or erode business beliefs, depending on actors' knowledgeability and the means put at their disposal.

From the study emerges a notion of *intelligent adaptation* that pivots on a continous awareness among managers of the fact that decisions and actions are undertaken on basis of subjective considerations. This opens the door to proactive thinking for keeping pace with environmental developments. Being proactive not necessarily means staying ahead of the market. It means staying ahead of obsolete business beliefs and doing so efficiently, e.g. by involving managers throughout the organization. Intelligent adaptation means understanding when first-order change in beliefs is sufficient and when second-order change is required. Initiating first-order changes to tackle a problem which cannot possibly be solved within the existing business model leads to frustration. Intelligent adaptation also demands an awareness of the dynamics of structure and action, both at the decision-making level and at levels below. Considering business beliefs and resources as structural properties which are mobilized in strategic and recurrent action holds the promise of a structured and dynamic approach to adaptation. Framing adaptation as a multi-level, cognitively anchored process will not make such top-down, second-order change less complex for academics or practitioners. However, it does add to the understanding of some key dynamics. It is hoped that this study will spur further interest of strategy researchers in a multi-level, processual approach to the role of cognition in adaptation.

REFERENCES

Ackoff, R. (1974). *Redesigning the future*. New York, NY: Wiley.

Anderson, C.R. & Paine, F.T. (1975). Managerial perceptions and strategic behavior. *Academy of Management Journal*, 18 (4), 811-823.

Ansoff, H.I. (1965). *Corporate Strategy*. New York, NY: McGraw-Hill.

Argyris, C. & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.

Astley, W.G. & Van den Ven, A.H. (1983). Central perspectives and debates in organization theory. *Administrative Science Quarterly*, 28, 245-273.

Bacharach, S.B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, 14 (4), 496-515.

Bakker, T. (1991). Into the fast lane: after a year of startling new alliances, the giants of Dutch banking face a testing time making their mark. *The Banker*, 141 (780), 22.

Bakker, T. (1994). Against the tide. *The Banker*, May, 23-24.

Bakker, T. (1995). High hopes in the low lands. *The Banker*, April, 65-67.

Bakker, T. (1996). Smiling ear to ear. *The Banker*, April, 23-25.

Balogun, J. (2003). From blaming the middle to harnessing its potential: Creating change intermediaries. *British Journal of Management*, 14, 69-83.

Barley, S.R. & Tolbert, P.S. (1997). Institutionalization and Structuration: Studying the links between action and institution. *Organization Studies*, 18 (1), 93-117.

Barnett, W.P. & Hansen, M.T. (1996). The red queen in organizational evolution. *Strategic Management Journal*, 17, 139-157.

Barnett, W.P. & Burgelman, R.A. (1996). Evolutionary perspectives on strategy. *Strategic Management Journal*, 17, 5-19.

Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 139-157.

Baron, D.P. & Besanko, D. (2001). Strategy, organization and incentives: Global corporate banking at Citibank. *Industrial and Corporate Change*, 10 (1), 1-36.

Barr, P.S. (1998). Adapting to unfamiliar environmental events: A look at the evolution of interpretation and its role in strategic change. *Organization Science*, 9 (6), 644-669.

Barr, P.S. & Huff, A.S. (1997). Seeing isn't believing: Understanding diversity in the timing of strategic response. *Journal of Management Studies*, 34 (3), 337-370.

Barr, P.S., Stimpert, J.L. & Huff, A.S. (1992). Cognitive change, strategic action, and organizational renewal. *Strategic Management Journal*, 13, 15-36.

Barth, J.R., Dan Brumbaugh, R. & Litan, R.E. (1990). *Banking industry in turmoil: A report on the condition of the U.S. banking industry and the Bank Insurance Fund*. Report to the Financial Institutions Subcommittee of the House Banking Committee. Washington, DC: Government Printing Office.

Bartlett, C.A. & Ghoshal, S. (1993). Beyond the M-form: Toward a managerial theory of the firm. *Strategic Management Journal*, 14, 23-46.

Bartunek, J.M. (1984). Changing interpretive schemes and organizational restructuring: The example of a religious order. *Administrative Science Quarterly*, 29, 355-372.

Bartunek, J.M. (1988). The dynamics of personal and organizational reframing. In Quinn, R.E. & Cameron, K.S. (Eds.). *Paradox and transformation: Toward a theory of change in organization and management.* Cambridge, MA: Ballinger, 137-162.

Bartunek, J.M. & Moch, M.K. (1987). First-order, second-order, and third-order change and organization development interventions: A cognitive approach. *The Journal of Applied Behavioral Science*, 23 (4), 483-500.

Bate, P., Khan, R. & Pye, A. (2000). Towards A Culturally Sensitive Approach To Organization Structuring: Where Organization Design Meets Organization Development. *Organization Science*, 11 (2), 197-211.

Bateman, T.S. & Zeithaml, C.P. (1989). The psychological context of strategic decisions: A model and convergent experimental findings. *Strategic Management Journal*, 10, 59-74.

Bettman, J.R. & Weitz, B.A. (1983). Attributions in the board room: Causal reasoning in corporate annual reports. *Administrative Science Quarterly*, 28, 165-183.

Berger, A.N., Kashyap, A.K. & Scalise, J.M. (1995). The transformation of the U.S. banking industry: What a long, strange trip it's been. In Brainard, W.C. & Perry, G.L. (Eds.), *Brookings Papers on Economic Activity*. Washington, DC: Brookings Institution, 2, 55-201.

Berger, P.L. & Luckmann, T. (1966). *The social construction of reality*. Garden City, NY: Doubleday & Company.

Berry, J. (1994). Executive commentary on: Creating earthquakes to change organizational mindsets. *Academy of Management Executive*, 8 (4), 43-44.

Bettis, R.A. & Prahalad, C.K. (1995). The dominant logic: Retrospective and extension. *Strategic Management Journal*, 16, 5-14.

Beyer, J.M. (1981). Ideologies, values, and decision making in organizations. In Nystrom, P.C. & Starbuck, W.H. (Eds.) *Handbook of organizational design*, Vol. 2. New York, NY: Oxford University Press, 166-202.

Biggart, N.W. (1977). The creative destructive process of organizational change: The case of the post office. *Administrative Science Quarterly*, 22, 410-425.

Bobbitt, H.R. & Ford, J.D. (1980). Decision-maker choice as a determinant of organizational structure. *Academy of Management Review*, 5 (1), 13-23.

Bogner, W.C. & Barr, P.S. (2000). Making sense in hypercompetitive environments: A cognitive explanation for the persistance of high velocity competition. *Organization Science*, 11 (2), 212-226.

Bourgeois, L.J. (1984). Strategic management and determinism. *Academy of Management Review*, 9 (4), 586-596.

Bowman, C. (1999). Action-led strategy and managerial self-confidence. *Journal of Managerial Psychology*, 14 (7/8), 558-568.

Brandeis, L.D. (1914). *Other people's money and how the bankers use it*. New York, NY: Frederick A. Stokes.

Brown, S.L. & Eisenhardt, K.M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42, 1-34.

Burgelman, R.A. (1983). A process model of internal corporate venturing in the diversified firm. *Administrative Science Quarterly*, 28, 223-244.

Burns, T. & Stalker, G. (1961). *The management of innovation*. London: Tavistock.

Calori, R., Johnson, G. and Sarnin, P. (1994). CEO's Cognitive maps and the scope of the organization. *Strategic Management Journal*, 15, 437-457.

Chakravarthy, B.S. (1982). Adaptation: A promising metaphor for strategic management. *Academy of Management Review*, 7 (1), 35-44.

Charan, R. & Tichy, N.M. (1998). How John Reed turned Citibank outside in. In Charan, R. & Tichy, N.M. (Eds.), *Every business is a growth business*. New York: Random House, 105-116.

Chattopadhyay, P., Glick, W.H., Miller, C.C. & Huber, G.P. (1999). Determinants of executive beliefs: Comparing functional conditioning and social influence. *Strategic Management Journal*, 20, 763-789.

Chesley, J.A. & Huff, A.S. (1998). Anticipating strategic turnaround: The systems and structures that enable/constrain change. In Ketchen, D. (Ed.). *Advances in applied business strategy*, Vol. 5. Stamford, CO: JAI Press, 177-204.

Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6, 1-22.

Child, J. (1997). Strategic choice in the analysis of action, structure, organizations and environment: retrospect and prospect. *Organization Studies*, 18 (1), 43-76.

Currie, A. (1996). Enter Fortis –the fourth force. *Euromoney*, November, 65-68.

Cyert, R.M. & March, J.G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ: Prentice-Hall.

Daft, R.L. & Weick, K.E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9 (2), 284-295.

D'Aveni, R.A. (1994). Hypercompetition: Managing the dynamics of strategic maneuvering. New York, NY: Free Press.

D'Aveni, R.A. & MacMillan, I.C. (1990). Crisis and the content of managerial communications: A study of the focus of attention of top managers in surviving and failing firms. *Administrative Science Quarterly*, 35, 634-657.

Davis, G.F. & Mizruchi, M.S. (1999). The money center cannot hold: Commercial banks in the U.S. system of corporate governance. *Administrative Science Quarterly*, 44, 215-239.

Denis, J., Lamothe, L. & Langley, A. (2001). The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management Journal*, 44 (4), 809-837.

Denzin, N.K. (1978). *The research act*. Second edition. New York, NY: McGraw-Hill.

Dijksterhuis, M.S., Van den Bosch, F.A.J. & Volberda, H.W. (1999). Where do new organization forms come from: Management logic as a source of coevolution. *Organization Science*, 10 (5), 569-582.

Dijksterhuis, M.S., Van den Bosch, F.A.J. & Volberda, H.W. (2003). A cognitive perspective on strategizing/organizing. In Pettigrew, A.M., Whittington, R., Melin, L., Sánchez-Runde, C., Van den Bosch, F.A.J., Ruigrok, W. & Numugami, T. (Eds.), *Innovative Forms of Organizing*. London: Sage.

Dougherty, D. (1996). Organizing for innovation. In Clegg, S.R., Hardy, C. & Nord, W.R. (Eds.). *Handbook of organization studies*. London: Sage, 424-439.

Doz, Y. (1996). The evolution of cooperation in strategic alliances: Initial conditions or learning processes? *Strategic Management Journal*, 17, 55-83.

Dutton, J.E. & Dukerich, J.M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal*, 34 (3), 517-554.

Dutton, J.E. & Jackson, J.E. (1987). Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, 12 (1), 76-90.

Eisenhardt, K.M. (1989a). Building theories from case study research. *Academy of Management Review*, 14 (4), 532-550.

Eisenhardt, K.M. (1989b). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32 (3), 543-576.

Eisenhardt, K.M. & Martin, J.A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21: 1105-1121.

Elster, J. (1984). *Ulysses and the sirens: Studies in rationality and irrationality*. Cambridge: Cambridge University Press.

Fahey, L. & Narayanan, V.K. (1989). Linking changes in revealed causal maps and environmental change: An empirical study. *Journal of Management Studies*, 26 (4), 361-378.

Financieele Dagblad (1996) Banken presteren goed op voortkabbelend Damrak, 4 May.

Financieele Dagblad (2000). ING Bank laat netwerk van kantoren ongemoeid, 27 January.

Financieele Dagblad (2002). Focus op allfinanz toch succes, 19 April.

Flier, B., Van den Bosch, F.A.J., Volberda, H.W., Carnevale, C.A., Tomkin, N., Melin, L., Quélin, B.V. & Kriger, M.P. (2001). The changing landscape of the European financial services sector. *Long Range Planning*, 34 (2), 179-207.

Floyd, S.W. & Lane, P.J. (2000). Strategizing throughout the organization: Managing role conflict in strategic renewal. *Academy of Management Review*, 25 (1), 154-177.

Floyd, S.W. & Wooldridge, B. (1997). Middle management's strategic influence and organizational performance. *Journal of Management Studies*, 34, 465-485.

Ford, J.D. & Baucus, D.A. (1987). Organizational adaptation to performance downturns: An interpretation-based perspective. *Academy of Management Review*, 12 (2), 366-380.

Ford, J.D. & Hegarty, W.H. (1984). Decision makers' beliefs about the causes and effects of structures: An exploratory study. *Academy of Management Journal*, 27 (2), 271-291.

Fortune, Fortune 500, 15 April 2002.

Fox-Wolfgramm, S.J., Boal, K.B. & Hunt, J.G. (1998). Organizational Adaptation to Institutional Change: A Comparative Study of First-Order Change in Prospector and Defender Banks. *Administrative Science Quarterly*, 43: 87-126.

Garud, R. & Rappa, M.A. (1994). A socio-cognitive model of technology evolution: The case of Cochlear Implants. *Organization Science*, 5(3), 344-362.

Gavetti, G. & Levinthal, D. (2000). Looking forward and looking backward: Cognitive and Experiential Search. *Administrative Science Quarterly*, 45, 113-137.

Giddens, A. (1976). *New rules of sociological method*. London: Hutchinson.

Giddens, A. (1979). *Central problems in social theory: Action, structure and contradictions in social analysis*. London: Macmillan.

Giddens, A. (1984). *The constitution of society*. Cambridge: Polity Press.

Gioia, D.A. & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12, 433-448.

Gioia, D.A., Thomas, J.B., Clark, S.M. & Chittipeddi, K. (1994). Symbolism and strategic change in academia: The dynamics of sensemaking and influence. *Organization Science*, 5 (3), 363-383.

Greenwood, R. & Hinings, C.R. (1988). Organizational design types, tracks, and the dynamics of strategic change. *Organization Studies*, 8, 293-316.

Greenwood, R. & Hinings, C.R. (1996). Understanding radical organizational change: Bringing together the old and the new institutionalism. *Academy of Management Review*, 21 (4), 1022-1054.

Grinyer, P. & McKiernan, P. (1990). Generating major change in stagnating companies. *Strategic Management Journal*, 11, 131-146.

Grønhaug, K. and Falkenberg, J.S. (1989). Exploring strategy perceptions in changing environments. *Journal of Management Studies*, 26 (4), 349-359.

Haleblian, J. & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of Management Journal*, 36 (4), 844-863.

Hambrick, D.C. (1982). Environmental scanning and organizational strategy. *Strategic Management Journal*, 3, 159-174.

Hambrick, D.C. & Brandon, G.L. (1988). Executive Values. In Hambrick, D.C. (Ed.), *The Executive effect: Concepts and methods for studying top managers*, Greenwich, CN: JAI Press.

Hambrick, D.C. & Mason, P.A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9 (2), 193-206.

Hannan, M.T. & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology*, 82, 929-964.

Haveman, H.A. (1992). Between a rock and a hard place: Organizational change and performance under conditions of fundamental environmental transformation. *Administrative Science Quarterly*, 37, 48-75.

Hedberg, B. (1981). How organizations learn and unlearn. In Nystrom, N. & Starbuck, W.H. (Eds.). *Handbook of organizational design*. I, Oxford: Oxford University Press, 3-27.

Hedberg, B., Nystrom, P. & Starbuck, W.H. (1976). Camping on seesaws: Prescriptions for a self-designing organization. *Administrative Science Quarterly*, 21, 41-65.

Hensmans, M., Van den Bosch, F.A.J., Volberda, H.W. (2001). Clicks vs. bricks in the emerging online financial services industry. *Long Range Planning*, 34 (2), 231-247.

Heracleous, L. & Barrett, M. (2001). Organizational change as discourse: Communicative actions and deep structures in the context of information technology implementation. *Academy of Management Journal*, 44 (4): 755-778.

Hinings, B. & Greenwood, R. (1988). The normative prescription of organizations. In L.G. Zucker (Ed.), *Institutional patterns and organizations*: 53-70. Cambridge, MA: Ballinger.

Holsti, O.B. (1968). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley.

Hrebiniak, L.G. & Joyce, W.F. (1985). Organizational adaptation: Strategic choice and environmental determinism. *Administrative Science Quarterly*, 30 (3), 336-349.

Huff, A.S. (1982). Industry influences on strategy reformulation. *Strategic Management Journal*, 3, 119-131.

Huff, J.O., Huff, A.S. & Thomas, H. (1992). Strategic renewal and the interaction of cumulative stress and inertia. *Strategic Management Journal*, 13, 55-75.

Huy, Q. (2001). In praise of middle managers. *Harvard Business Review*, 79, September, 72-79.

Huy, Q. (2002). Emotional balancing of organizational continuity and radical change: The contribution of middle managers. *Administrative Science Quarterly*, 47 (1): 31-69.

Isabella, L.A. (1990). Evolving interpretations as a change unfolds: How managers construe key organizational events. *Academy of Management Journal*, 33 (1), 7-41.

Jackson, S.E. & Dutton, J.E. (1988). Discerning threats and opportunities. *Administrative Science Quarterly*, 33, 370-387.

James, C. & Houston, J. (1996). Evolution or extinction: Where are banks headed? *Journal of Applied Corporate Finance*, 9 (2), 8-23.

Jick, T.D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24 (4), 602-611.

Judge, W.Q. Jr. & Zeithaml, C.P. (1992). Institutional and strategic choice perspectives on board involvement in the strategic decision process. *Academy of Management Journal*, 35 (4), 766-794.

Kiesler, S. & Sproull, L. (1982). Managerial response to changing environments: Perspectives on problem sensing from social cognition. *Administrative Science Quarterly*, 27, 548-570.

Klebaner, B.J. (1990). *American Commercial Banking*. Boston, MA: Twayne.

Kuper, S. (1997). Success at the cutting edge. *Financial Times*, November.

Labianca, G., Gray, B, & Brass, D.J. (2000). A grounded model of organizational schema change during empowerment. *Organization Science*, 11 (2), 235-257.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24 (4), 691-710.

Lant, T.K., Milliken, F.J. & Batra, B. (1992). The role of managerial learning and interpretation in strategic persistence and reorientation: An empirical exploration. *Strategic Management Journal*, 13, 585-608.

Lawrence, P.R. & Lorsch, J.W. (1967). *Organization and environment.* Boston, MA: Harvard Business School, Division of research.

Lazarsfeld, P.F. & Menazel, H. (1961). On the relation between individual and collective properties. In Etzionio, A. (Ed.), *Complex organizations: A sociological reader*. New York, NY: Holt, Reinhart & Winston, 422-440.

Lenz, R.T. (1981). Determinants of organizational performance: An interdisciplinary review. *Strategic Management Journal*, 2, 131-154.

Levinthal, D.A. & March, J.G. (1993). The myopia of learning. *Strategic Management Journal*, 14, Winter special issue, 95-112.

Levitt, B. & March, J.G. (1988). Organizational learning. In: Scott, W.R. (Ed.), *Annual Review of Sociology,* xiv, Palo Alto, CA: Annual Reviews, 319-340.

Lewin, A.Y., Long, C.P. & Carroll, T.N. (1999). The coevolution of new organizational forms. *Organization Science*, 10 (5), 535-550.

Lewin, A.Y. & Stephens, C.U. (1994). CEO attitudes as determinants of organization design: An integrated model. *Organization Studies*, 15 (2), 183-212.

Lewin, A.Y. & Volberda, H.W. (1999). Prolegomena on coevolution: A framework for research on strategy and new organizational forms. *Organization Science*, 10 (5), 519-534.

Lyles, M.A. & Schwenk, C.R. (1992). Top management, strategy and organizational knowledge structures. *Journal of Management Studies*, 29 (2), 155-174.

MacIntosh, R. & MacLean, D. (1999). Conditioned emergence: A dissipative structures approach to transformation. *Strategic Management Journal*, 20, 297-316.

Malnight, T.W. (1996). The transition from decentralized to network-based MNC structures: An evolutionary perspective. *Journal of International Business Studies*, 43-65.

March, J.G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2 (1), 71-87.

March, J.G. & Olsen, J.P. (1976). *Ambiguity and choice in organizations*. Bergen: Universitetsforlaget.

March, J.G. & Simon, H.A. (1958). *Organizations*. New York, NY: Wiley.

Markóczy, L. (1997). Measuring beliefs: Accept no substitutes. *Academy of Management Journal*, 40 (5), 1228-1242.

McCall, M.W. & Kaplan, R.E. (1985). *Whatever it takes: Decision makers at work*. Englewood Cliffs, NJ: Prentice Hall.

McKelvey, B. (1997). Quasi-natural organization science. *Organization Science*, 8 (4), 352-380.

McKinley, W. & Scherer, A.G. (2000). Some unanticipated consequences of organizational restructuring. *Academy of Management Review*, 25 (4), 735-752.

Meindl, J.R., Stubbart, C. & Porac, J.F. (1994). Cognition within and between organizations: five key questions. *Organization Science*, 5 (3), 289-293.

Meyer, A.D. (1982). How ideologies supplant formal structures and shape responses to environments. *Journal of Management Studies*, 19 (1), 46-61.

Mezias, J.M., Grinyer, P. & Guth, W.D. (2001). Changing collective cognition : A process model for strategic change. *Long Range Planning*, 34 , 71-95.

Miles, R.H. (1997). *Corporate comeback. The story of renewal and transformation at National Semiconductor*. San Francisco: Jossey-Bass.

Miles, M.B. & Huberman, A.M. (1984). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Miles, R.E. & Snow, C.C. (1978). *Organizational strategy, structure, and process*. New York, NY: McGraw-Hill.

Miller, D. & Friesen, P.H. (1980). Momentum and revolution in organizational adaptation. *Academy of Management Journal*, 23 (4), 591-614.

Miller, D., Kets de Vries, M.F.R. & Toulouse, J. (1982). Top executives' locus of control and its relationship to strategy-making, structure and environment. *Academy of Management Journal*, 25 (2), 237-253.

Munn, G.G. & Garcia, F.L. (1983). *Encyclopedia of Banking and Finance*, Seventh edition, Boston, MA: Bankers.

Nadler, A.D. & Tushman, M.L. (1989). Organizational frame bending: Principles for managing reorientation. *Academy of Management Executive*, 3 (3), 194-203.

Nelson, R.R. & Winter, S.G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.

Nolan Norton Institute (1997). *Strategic Changes in the Financial Services Industry*, Research Memorandum, December.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16, 145-179.

Oxford English Dictionary (1971). Oxford: Oxford University Press, 596.

Penrose, E.T. (1959). *The theory of the growth of the firm*. New York, NY: Wiley.

Pettigrew, A.M. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1 (3), 267-292.

Pettigrew, A.M. (1992). The character and significance of strategy process research. *Strategic Management Journal*, 13, 5-16.

Pettigrew, A.M. (1997) What is a processual analysis? *Scandinavian Journal of Management*, 13 (4): 337-348.

Pettigrew, A.M., Woodman, R.W. & Cameron, K.S. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management Journal*, 44 (4), 697-713.

Porac, J.F., Thomas, H. & Baden-Fuller, C. (1989).Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers. *Journal of Management Studies*, 26 (4), 397-416.

Prahalad, C.K. & Bettis, R.A. (1986). The dominant logic: A new linkage between diversity and performance. *Strategic Management Journal*, 7 (6), 485-501.

Priem, R.L. (1994). Executive judgment, organizational congruence and firm performance. *Organization Science,* 5 (3), 421-437.

Quinn, J.B. (1980). *Strategies for change*. Homewood, IL: Irwin.

Ranson, S, Hinings, B. & Greenwood, R. (1980). The structuring of organizational structures. *Administrative Science Quarterly*, 25, 1-17.

Reger, R. K. & Palmer, T.B. (1996). Managerial categorization of competitors: Using old maps to navigate new environments. *Organization Science*, 7 (1), 22-39.

Roberts, P.W. & Greenwood, R. (1997). Integrating transaction cost and institutional theories: Toward a constrained-efficiency framework for understanding organizational design adoption. *Academy of Management Review*, 22 (2), 346-373.

Schein, E.H. (1980). Organizational psychology. Third edition. Englewood Cliffs, N.J.: Prentice Hall.

Schendel, D.E. & Hofer, C.W. (Eds.) (1979). *A new view of business policy and planning*. Boston, MA: Little Brown.

Schneider, S. C. & Angelmar, R. (1993). Cognition in organizational analysis: Who's minding the store? *Organization studies*, 14 (3), 347-374.

Schneider, S.C. & De Meyer, A. (1991). Interpreting and responding to strategic issues: The impact of national culture. *Strategic Management Journal*, 12, 307-320.

Scott, W.R. (1981). *Organizations. Rational, natural, and open systems*. First edition. Englewood Cliffs, N.J.: Prentice Hall.

Scott, W.R. (1998). *Organizations. Rational, natural, and open systems*. Fourth edition. Upper Sadle River, NJ: Prentice Hall.

Selznick, P. (1957). *Leadership in administration: A sociological interpretation*. Evanston, IL: Row, Peterson and Co.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.

Sewell, W.H. (1992). A theory of structure: Duality, agency, and transformation. *American Journal of Sociology*, 98 (1), 1-29.

Siggelkow, N. (2001). Change in the presence of fit: The ris, the fall, and the renaissance of Liz Claiborne. *Academy of Management Journal*, 44 (4), 838-857.

Silverman, D. (1970). *The theory of organisations*. London: Heinemann.

Simon, H.A. (1947). *Administrative behavior*. New York: Macmillan.

Singh, K. & Mitchell, W. (1996). Precarious collaboration: Business survival after partners shut down or form new partnerships. *Strategic Management Journal*, 17 (Summer special issue), 99-115.

Smircich, L. & Stubbart, C. (1985). Strategic management in an enacted world. *Academy of Management Review*, 10 (4), 724-736.

Smith, R.C. & Walter, I. (1997). *Global Banking*. New York, NY: Oxford University Press.

Spiegel, J., Gart, A. & Gart, S. (1996). *Banking redefined: How superregional powerhouses are reshaping financial services*. Chicago, IL: Irwin.

Starbuck, W.H. (1976). Organizations and their environments. In Dunnette, M.D. (Ed.), *Handbook of Industria and Organizational Psychology*. Chicago, IL: Rand McNally, 1069-1123.

Starbuck, W.H. & Milliken, F.J. (1988). Executives' perceptual filters: What they notice and how they make sense. In Hambrick, D.C. (Ed.) *The executive effect: Concepts and methods for studying top managers*, Greenwich, CO: JAI Press.

Stubbart, C.I. (1989). Managerial cognition: A missing link in strategic management research. *Journal of Management Studies*, 26 (4), 325-347.

Stubbart, C.I. & Ramaprasad, A. (1990). Comments on the empirical articles and recommendations for future research. In Huff, A.S. (Ed.), *Mapping strategic thought*. Chichester: Wiley, 251-288.

Teece, D.J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18 (7), 509-533.

Teece, D.J., Rumelt, R., Dosi, G. & Winter, S. (1993). Understanding corporate coherence: Theory and evidence. *Journal of Economic Behavior and Organization*, 23 (1), 1-30.

Thomas, J.B., Clark, S.M. & Gioia, D.A. (1993). Strategic sensemaking and organizational performance: Linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal*, 36 (2), 239-270.

Thomas, J.B. & McDaniel, R.R. (1990). Interpreting strategic issues: Effects of strategy and the information-processing structure of top management teams. *Academy of Management Journal*, 33, 286-306.

Tichy, N. & Charan, R. (1990). Citicorp faces the world: An interview with John Reed. *Harvard Business Review*, November-December, 135-144.

Tripsas, M. & Gavetti, G. (2000). Capabilities, cognition and inertia: Evidence from digital imaging. *Strategic Management Journal*, 21, 1147-1161.

Van der Vennet, R. (2002). Cost and profit efficiency of financial conglomerates and universal banks in Europe. *Journal of Money, Credit, and Banking*, 34 (1), 254-282.

Van Wijk, R.A. & Van den Bosch, F.A.J. (2000). The emergence and development of internal networks and their impact on knowledge flows: The case of Rabobank Group. In Pettigrew, A.M. & Fenton, E.M. (Eds.) *The innovating organization*. London: Sage, 144-177.

Van Zanden, J.L. & Uittenbogaard, R. (1999). Expansie, internationalisering en concentratie, 1950-1990. In *Wereldwijd bankieren, ABN Amro 1824-1999*. Amsterdam: ABN Amro Bank NV, 335-392.

Vermeulen, P.A.M. (2002). *Organizing product innovation in financial services*. Dissertation. Nijmegen: Nijmegen University Press.

Volberda, H.W., Baden-Fuller, C. & Van den Bosch, F.A.J. (2001). Mastering strategic renewal: Mobilising renewal journeys in multi-unit firms. *Long Range Planning*, 34 (2), 159-178.

Volberda, H.W., Van den Bosch, F.A.J., Flier, B. & Gedajlovic, E.R. (2001). Following the herd or not? Patterns of strategic renewal in the Netherlands and the U.K. *Long Range Planning*, 34, 209-229.

Walsh, J.P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6, 280-321.

Weick, K.E. (1979). *The social psychology of organizing*. Second edition. Reading, MA: Addison-Wesley.

Weick, K.E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weiss, R.S. (1968). Issues in holistic research. In Becker, H.S., Geer, B., Riesman, D. & Weiss, R. (Eds.), *Institutions and the person.* Chicago, IL: Aldine, 342-350.

Wheelock, D.C. & Wilson, P.W. (1999). Technical progress, inefficiency, and productivity in U.S. banking, 1984-1993. *Journal of Money, Credit, and Banking*, 31 (2), 212-234.

White, W.R. (1998). The coming transformation of continental European banking? *BIS Working Paper No. 54*, June, 37 pages.

Whitley, R.D. (1987). Taking firms seriously as economic actors: Towards a sociology of firm behaviour. *Organization Studies*, 8 (2), 125-147.

Whitley, R.D. (1990). Eastern Asian enterprise structures and the comparative analysis of forms of business organization. *Organization Studies*, 11 (1), 47-74.

Whittington, R. (1988). Environmental structure and theories of strategic choice. *Journal of Management Studies*, 25 (6), 521-536.

Whittington, R. (1992). Putting Giddens into action: Social systems and managerial agency. *Journal of Management Studies*, 29 (6), 693-712.

Whittington, R. & Melin, L. (2003). Organizing/strategizing. In Pettigrew, A.M., Whittington, R., Melin, L., Sánchez-Runde, C., Van den Bosch, F.A.J., Ruigrok, W. & Numugami, T. (Eds.), *Innovative Forms of Organizing*. London: Sage.

Wiersema, M.F. & Bantel, K.A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35 (1), 91-122.

Woodward, J. (1965). *Industrial organization: Theory and practice*. London: Oxford University Press.

Yasai-Ardekani, M. (1986). Structural adaptations to environments. *Academy of Management Review*, 11 (1), 9-21.

Yin, R.K. (1984). *Case study research: Design and methods*. Second edition. Thousand Oaks, CA.: Sage.

Zucker, L.G. (1987). Normal change or risky business: Institutional effects on the 'hazard' of change in hospital organizations, 1959-79. *Journal of Management Studies*, 24 (6), 671-700.

APPENDIX A
MANAGERIAL COGNITION IN ADAPTATION

Author(s)	Adaptation	Cognition	Contribution
Anderson & Paine (1975)	Relationship between environmental properties and internal traits of the firm, strategy choices	Boundary spanning managers' perception of environmental uncertainty and perception of need for change in strategic properties of the organization (e.g. mission, strategy, structure) in order to meet environmental demands	Theoretical: perceptual process: selectivity, closure and interpretation. Perceived uncertainty and perceived need for change is assumed to affect a number of strategic properties: mission, objectives, form, search processes
Kiesler & Sproull (1982)	Organizational breakpoints, crises, extreme change and chance	Noticing, interpreting and incorporating stimuli	Theoretical: review of social cognition processes that lead to certain kinds of problem-sensing behavior and implications
Starbuck & Milliken (1988)	Actions and results	Executives' perceptual filters: what they notice and how they make sense	Theoretical: influences on perceptual filtering processes that executives use as they observe and try to understand their environments
Ford & Hegarty (1984)	Structural change	Decision makers' beliefs about causes and effects of structures	Some beliefs influence structure, but the nature of that influence varies according to the decision maker

Smircich & Stubbart (1985)	Nature of what constitutes adaptation can only be stated retrospectively, never prospectively	Strategic managers' knowledge of events and situations	Theoretical: objective, subjective and enacted model of environment; interpretive perspective
Gronhaug & Falkenberg (1989)	Lack of strategic change in response to environmental jolts	Managers' perceptions of own and competitors' strategies	Study in U.S. forest products industry shows great discrepancies in self-evaluations and competitors' evaluations of the firms' strategies
Fahey & Narayanan (1989)	Strategic change –causal maps offer not only a way of critically exploring strategic change but may also provide a means of assisting such change	Top managers' belief systems with regard to macroenvironment, industry, strategy, strengths and objectives	Study on firm in TV receiver industry shows that fit between cognitive structures and environment was less than perfect, and that decision-makers both under-identified and over-identified certain environmental factors. Causal maps evolve over time.
Gavetti & Levinthal (2000)	Choice of action, action, outcome	Beliefs about action-outcome relations	Simulation study. An important form of adaptation is the shift in cognitive representations themselves; insight in how beliefs versus actions influence search processes

Barr & Huff (1997)	Responses to environmental change	Managerial perceptions: what is notified and how it is interpreted	An exploratory study of six pharmaceuticals shows that events not interpreted as affecting central concepts (performance or well-being) in the firm's strategic frame do not lead to a change in action and change appears to be triggered by interpretations that link an event to other concurrent or prior events
Bogner & Barr (2000)	Organizational action	Idiosyncratic firm-level sensemaking framework & industry recipes that perpetuate hypercompetition	Theoretical: to cope with undermining of cognitive frameworks of competition caused by environmental changes, managers develop new sensemaking responses that can become institutionalized as SOPs and as industry recipes which act to perpetuate hypercompetition.
Bobbitt & Ford (1980)	Organization structure	Decision makers' cognitive and motivation orientations: systems for organization of information, observation and thought resp. of values and evaluation in the process of individual and group-problem solving	Theoretical: structure is result of interaction of cognitive and motivational orientations, transformation strategies and context

Lant, Milliken & Batra (1992)	Strategic reorientation	Managerial interpretation of past performance, managerial awareness of environmental changes	Study of furniture industry and computer software industry; interpretations are important predictors of likelihood of strategic reorientation
Thomas, Clark & Gioia (1993)	Organizational adaptation entails 3 key processes: scanning, interpreting and responding; strategic change in terms of changes in product/service	Executives' interpretation of situation in terms of positive-gain and controllability	Data from 156 hospitals indicate that high information use increases the likelihood that managers will interpret issues as potential gains and controllable; controllability positively related to strategic change; change related to better performance
Hambrick & Mason (1984)	Strategic choice, performance	Top managers' cognitive base (assumptions or knowledge about future events, alternatives and consequences) and values (which directly affect choices or through perceptions)	Theoretical: organizational outcomes –strategic choices and performance levels- are partially predicted by managerial background characteristics
Dutton & Jackson (1987)	Organizational response to strategic issue	Cognitive categories: threats and opportunities	Theoretical: decision makers' categorization of issues affects the processing of issues and the types of organizational actions taken in response to them

Barr (1998)	A firm's strategic response to unfamiliar environmental events	Top managers' cause/effect beliefs about external events and key firm-level activities	Study of 6 pharmaceutical firms over 10-year period indicates that interpretations of familiar and unfamiliar events develop along two different patterns; that interpretations are related to both timing and content of strategic change; and that change in interpretation and change in strategy have a back-and-forth relationship
Child (1972)	Development of strategy and accompanying changes in scale of operations, technology, structure and HR	Dominant coalition's evaluation of the situation informed by prior ideology	Theoretical: strategic choice typically included not only the establishment of structural forms but also the manipulation of environmental features and the choice of performance standards
Lewin & Stephens (1994)	Choice of organizational design	CEO's need for achievement, machiavellianism, egaliatarism, trust in people, locus of control, tolerance for ambiguity, risk propensity, moral reasoning	Theoretical: CEO's characteristics are assumed to influence strategy and choice of organizational design

Roberts & Greenwood (1997)	Adopting a new organizational design	Preconscious institutional constraints: taken-for-granted elements shape the decision making process by influencing what is and what is not perceived. Postconscious constraints: dynamic of legitimacy	Theoretical: efficiency-seeking firms may be biased in favor of current designs and those that are legitimated within their institutional contexts. Enhances understanding of how firms adopt new organizational designs
Daft & Weick (1984)	Structure	Interpretation of environment	Theoretical: management's beliefs about analyzability of environment and organizational intrusiveness influence firm's interpretation mode
Calori, Johnson & Sarnin (1994)	Strategic decision making	CEO's understanding of environmental structure and of environmental dynamics	Data on 12 French and 14 British companies in four industries (brewing, retail banking, car manufacturing, book publising) indicate a link between complexity of tasks and complexity of cognitive maps
Isabella (1990)	NA	Managers' interpretations of key organizational events	Data from interviews with 40 managers from a financial services institution show that interpretations unfold in 4 stages: anticipation, confirmation, culmination and aftermath

Barr, Stimpert & Huff (1992)	Changes in organizational action	Executives' noticing and interpreting of environmental changes; causal attributions	Study of two U.S. railroad companies indicates that renewal hinges not so much on noticing new conditions, but on being able to link environmental change to corporate strategy and to modify that linkage over time. In the successful company, renewal is a continuous process of first and order changes in cognitive maps.
Bettis & Prahalad (1995)	Environmental-driven organizational change	Dominant logic: the way managers conceptualize the business and make critical resource allocations decisions. It is stored via shared schemas, cognitive maps, or mind sets and is determined by the managers' previous experiences	Theoretical: organizations are complex systems where individual behaviors of managers and employees interact in complex ways with each other and with the environment, nonlinear, dominant logic is an emergent property of complex systems seeking to adapt.
Tripsas & Gavetti (2000)	Adapting to radical technological change	Managers' understanding of the world, cognitive representations	In-depth case study of Polaroid clearly illustrates the importance of managerial cognitive representations in directing search processes in a new learning environment, the evolutionary trajectory of organizational capabilities, and ultimately processes of organizational adaptation

MacIntosh & MacLean (1999)	Organizational transformation: a relatively rapid transition from one archetype to another	Deep structure: set of rules which comprise organizing principles and business logic. Process-oriented rules: e.g. how things are done. Content-oriented rules: e.g. what kind of business is conducted	Two illustrative case studies indicate that issues of content are important but that they should be managed at the level of the rules which generate outcomes rather than at the level of the outcomes themselves
Ford & Baucus (1987)	Organizational adaptation to performance downturns	Decision makers' collective interpretation of a situation	Theoretical: paper is concerned not with implementation of responses, but with process by which decision makers come to those responses. Strategy, structure and culture might influence responses.
Yasai-Ardekani (1986)	Structural adaptations	Managers' perceptions of their environments	Theoretical: industry environmental traits influence structure through managers' perceptions of environment which are also influenced by individual characteristics (e.g. cognitive structures) and existing structure. Structural adaptations are also affected by managerial choice and slack.

Meyer (1982)	Organizational adaptation to an environmental jolt	Decision makers' theory of action (selection and interpretation of stimuli); power holders' beliefs; organizational ideology: perceived importance of environment; number of stories about reorientations; benefits expected from changes; subordinates' perceived capabilities; benefits expected from participation	Study of 3 hospitals experiencing jolt suggest that ideology and strategy are better predictors of adaptations than are structure and slack. Jolts offer learning opportunities. Outcomes can be resiliency (deviation reducing, first order) and retention (deviation-amplifying, second order)
D'Aveni & MacMillan (1990)	NA	Top managers' attention to environment	Exploratory study of 57 bankrupt firms and 57 matched survivors shows that managers of the former deny or ignore output factors during crisis and pay more attention to input and internal environments. Managers of survivors pay more attention to critical aspects of external environment.

Siggelkow (2001)	Firms' ability to react to three types of environmental changes: fit-conserving change, benign fit-destroying change and detrimental fit-destroying change	Managers' mental maps	A longitudinal case study of American fashion company indicates that fit-conserving change which leaves the internal fit among a firm's activities intact yet decreases the appropriateness of the set of choices as a whole, poses a particular difficult challenge for managers.
Thomas & McDaniel (1990)	Strategic action	CEOs' interpretation of strategic issue	Study of 151 hospital CEOs indicates that both strategy and information-processing structure of TMT are related to how CEOs label strategic situations and the range of variables they use during interpretation
Priem (1994)	Strategy-structure-environment alignment decisions	CEOs' judgment: their beliefs about cause/effect relationships among business-level strategy, structure and environment and performance	Study of CEOs of 33 manufacturing firms shows that CEO judgment is strongly related to actual organizational alignment and that judgment policies that are similar to those recommended by contingency theory produce higher performance than other policies
Gioia & Chittipeddi (1991); Gioia et al. (1994)	NA	CEO's sensemaking and sensegiving	Study of a strategic change effort in large public university shows that four phases of change: envisioning, signaling, revisioning and energizing. Is interplay between cognition and action, where first is related to sensemaking and second to sensegiving

Miller, Kets de Vries & Toulouse (1982)	NA	Top executives' locus of control	Study of 33 Canadian firms shows that top executives' locus of control strongly affects strategy, but only indirectly influences environment and structure.
Lenz (1981)	Co-alignment of task environment, strategy and structure	Strategy-structure filter which influences cognitive map held by dominant coalition	Theoretical: model which shows interdependencies among factors related to organizational performance
Hambrick (1982)	Organizational adaptation to the environment	Upper-level executives' environmental scanning activities	Survey among 165 executives in 3 industries (private liberal arts colleges, voluntary general hospitals, life insurance industry) did NOT indicate a consistent, concentrated tendency to scan according to existing strategy

APPENDIX B

ORGANIZATIONAL COGNITION IN ADAPTATION

Author(s)	Adaptation	Cognition	Contribution
Dutton & Dukerich (1991)	Organization's response to a nontraditional and emotional strategic issue	Organization members' interpretations of strategic issue	A case study of Port Authority of NY and NJ shows that an organization's image and identity guide and activate individuals' interpretations of an issue and motivations for actions on it, and those interpretations and motivations affect patterns of action over time
Ranson, Hinings & Greenwood (1980)	Restructuring	Provinces of meaning which incorporate interpretive schemes, intermittently articulated as values and interests, that form the basis of organizational members' orientation and strategic purposes	Theoretical: structuring is a process of generating and recreating meanings, organizational members wish to secure their provinces of meaning within the very structure and working of their firm
Greenwood & Hinings (1996)	Radical organizational change in response to market and institutional changes	Interest dissatisfaction and value commitments as precipitating dynamics; interests and values of groups within a firm	Theoretical: hypotheses on how firms retain, adopt, and discard templates for organizing from a neo-institutional perspective

Bartunek (1984)	Restructuring	Shared interpretive schemes, especially understanding of mission	Case study of religious order suggests that major changes in interpretive schemes occur through dialectical processes. Environmental forces are likely to initiate change, but interpretation of environment by organizational members affects type of change. Change in schema-change in structure is mediated by the actions of organizational members and their emotional reactions to change.

Garud & Rappa (1994)	NA	Researchers' beliefs about what is and what is not technically feasible	The historical development of cochlear implants is used to illustrate the reciprocal interaction between beliefs, artifacts and routines that gives rise to a micro-level process of inversion and a macro-level process of institutionalization. These processes that shape individual and shared realities place paradoxical demands on researchers when developing a new technology.

APPENDIX C
INTERVIEW PROTOCOLS

Variable	Illustrative questions
Decision-makers' perceptions	• Which environmental and organizational developments & events were of importance for the decision to change and why?
Decision-makers' business beliefs	• How was the business conceptualized (nature of the business; critical success factors) before the adaptation? • Was there a significant difference between this conceptualization and the one dominating directly after the adaptation? • If so, when did this change take place? • Did the conceptualization affect strategic actions? If so, how?
Strategic actions	• Which actions were initiated? E.g. establishment of new roles, new responsibilities, new performance measurement & reward systems
Middle managers' business beliefs	• How was the business conceptualized (nature of the business; critical success factors) before the adaptation? • Was there a significant difference between this conceptualization and the one dominating directly after the adaptation? • If so, when did this change take place?
Recurrent actions	• Did the adaptive effort significantly

	change recurrent actions? • To what extent can this change be attributed to a change in middle managers' resources? • To what extent can this change be attributed to a change in middle managers' business beliefs?

APPENDIX D
CASE STUDY PROTOCOL

Questions, data sources & sample strategies

Q1: *Who were the decision-maker(s) with regard to which issues?*

Data sources	Sample strategies
Data sources: project manager (contact person); project documents	Sample strategies: Who had decision-making power and why (basis of authority)?; Were there different decision-makers over time? If so, who and when? Were there different decision-makers for different issues? If so, who and which issues?; Construct list of decision-makers, feed this back to interviewees until no new names arise.

Q2: *Why was the top-down adaptive effort initiated; which environmental and organizational developments and events triggered decision-makers' wish for adaptation?*

Data sources	Sample strategies
Data sources: decision-makers; annual reports, minutes of decision-makers' meetings; strategic plans	Sample strategies: Construct environmental profile; List relevant organizational factors; Which environmental developments/events were the focus of interest?; How were these developments/events interpreted?

Q3: *Did decision-makers conceptualization of their business change? If so, how? How did it affect the adaptation process? If not, how did existing business beliefs affect the adaptation process?*

Data sources	Sample strategies
Data sources: decision-makers; others closely involved in decision-making (consultants, supervising managers, lower-level managers); minutes of decision-makers' meetings; strategic plans	Sample strategies: Map out decision-makers' business beliefs before adaptation; Map out decision-makers' beliefs in adaptation; What does success mean in the particular business in the eyes of the decision-makers?

Q4: *Which strategic actions constitute the adaptive effort? (1) Which actions directed at the formal functioning of the organization and (2) which actions directed at organizational cognition?*

Data sources: ad (1) formal documents (work council proposals; formal plans); decision-makers; ad (2) lower-level managers; cultural programmes; training programmes	Sample strategies: List strategic actions in chronological order; Which actions led to which subsequent actions?; Which higher-level actions led to which actions at lower levels?

Q5: *Did these strategic actions affect recurrent actions? If so, how? If not, why?*

Data sources: middle managers; procedures	Sample strategies: What were key routines? Did they change? If so, how?

APPENDIX E
FLOW CHART FOR DATA ANALYSIS

1 Obtain basic bank information

2 Conduct interview

Probe: observation & interpretation (perceived organizational and environmental characteristics), dominant conception of nature of the business and how to succeed in it (business beliefs), strategic actions (change in formal rules; change in organizational business beliefs)

3 Transcribe interview

4 Verify interview transcript and notes with respondent

5 Collect milestone documents

6 Index, code, and categorize data (summary forms) — *Revise protocols if necessary*

7 Develop case history

8 Analyze data, replicate & refine theoretical ideas

9 Cross-case analysis, explore propositions

10 Theoretical saturation?

No

Yes

11 Adjust framework

Adopted from Fox-Wolfgramm et al., 1998

Nederlandse samenvatting (Dutch summary)

Deze dissertatie gaat over adaptatie van organisaties. Adaptatie betekent aanpassing aan veranderende omstandigheden. Omdat elke industrie in meer of meerdere mate gekenmerkt wordt door veranderingen in condities (bijvoorbeeld regelgeving, consumentengedrag, technologie) en omdat aanpassing hieraan lang niet altijd vanzelfsprekend en makkelijk blijkt te zijn voor organisaties, wordt adaptatie als sinds lange tijd beschouwd als een belangrijk onderwerp in de organisatieliteratuur. Ondanks het feit dat vele onderzoekers zich hebben beziggehouden met de vraag hoe succesvolle adaptatie gerealiseerd kan worden, is er nog steeds veel te leren op dit gebied.

Het voorliggende onderzoek gaat specifiek in op de rol van cognitie in organisatie-adaptatieprocessen. In de brede zin van het woord verwijst cognitie naar kennisneming. Als zodanig is het een intermediair in de relatie tussen omgeving en organisatie. Of en hoe van veranderingen in de omgeving kennis wordt genomen is bepalend voor de acties die vervolgens binnen organisaties ondernomen worden. Verschillende vormen van cognitie zijn besproken in de organisatieliteratuur waarvan percepties (*perceptions*) en basisovertuigingen (*beliefs*) met name van betekenis zijn.

De rol van cognitie in organisatie-adaptatie is in toenemende mate onderkend in de afgelopen decennia. Dit promotie-onderzoek heeft als doel inzicht te genereren in de relatie tussen cognitie en adaptatie. De basisonderzoeksvraag luidt dan ook als volgt:

Hoe zijn cognitie en adaptatie aan elkaar gerelateerd?

Bij het beantwoorden van de onderzoeksvraag staat een aantal aandachtsgebieden centraal. De percepties en basisovertuigingen van topmanagers oftewel cognitie op besluitvormersniveau vormen een eerste set van variabelen. In het domein van organisatieverandering is vaak een belangrijke rol toegedicht aan deze variabelen. Topmanagers zijn verantwoordelijk voor en veelal direct betrokken bij de totstandkoming van strategische beslissingen, acties, en daarmee resultaten van organisaties. Naast de cognitie van topmanagers wordt ook gekeken naar de rol van cognitie op organisatieniveau. Om daadwerkelijk verandering te bewerkstelligen in het functioneren van mensen binnen een organisatie zullen niet alleen de percepties en daarmee basisovertuigingen van het hoger management significant moeten veranderen, maar ook die van andere leden van de organisatie. Het onderzoek dient ertoe inzicht te krijgen in de wijze waarop veranderingen in de cognitie van topmanagers gerelateerd is aan de verandering in cognitie op organisatieniveau. Naast het in beschouwing nemen van de verschillende niveaus van analyse is voor een dergelijk inzicht ook een analyse over tijd van belang. Een derde aandachtsgebied in de studie is de interactie tussen cognitie en actie. Zoals in het onderzoek wordt beargumenteerd, tonen de effecten van cognitie in adaptatie zich in acties op besluitvormers- en organisatieniveau. Deze acties hebben ook invloed op cognitie.

De bovengenoemde factoren worden bestudeerd in de context van organisatie-adaptaties waarbij een systeem van regels vervangen wordt door een geheel nieuw systeem, zogenaamde tweede-orde adaptaties[3]. Drie theorieën vormen gezamenlijk het theoretisch domein van de studie: *strategic choice* theorie, *structuration* theorie, en cognitieve theorie. Deze theorieën delen een aantal uitgangspunten dat de basis vormt van het onderzoekskader van de voorliggende studie. Daarnaast voegt elk van de theorieën een specifiek element toe aan het kader waarmee dan een nieuw perspectief op de rol van cognitie in adaptatie neergezet wordt. Het onderzoekskader is gebruikt voor de analyse van twee specifieke adaptatietrajecten; één traject dat heeft plaatsgevonden binnen ING –een grote Nederlandse financiële dienstverlener- in het midden van de jaren ’90 en een soortgelijk proces in dezelfde periode binnen Citigroup, een Amerikaans financieel conglomeraat. De keuze voor banken als studie-object werd gedreven door het feit dat de bankindustrie zich heeft ontwikkeld van een relatief stabiele tot een dynamische bedrijfsomgeving. Voor managers in deze industrie zijn onzekerheden en veranderingen onderdeel van de bedrijfsvoering geworden. Om aansluiting van hun organisatie bij de omgeving te waarborgen moeten besluitvormers in banken kennisnemen van de ontwikkelingen en aldus ontstane overtuigingen omtrent de industrie omzetten in beslissingen en acties. Dit maakt deze industrie bij uitstek een interessante context voor het bestuderen van de rol van cognitie in adaptatie.

Theoretisch domein

De drie theorieën die gezamenlijk het theoretisch domein vormen, behoeven enige verdere uitleg. *Strategic choice* theorie is ontstaan in het begin van de jaren ’70 als reactie op de overheersende deterministische opvatting van organisaties en van het gedrag van de mensen binnen deze organisaties. Uitgangspunt van deze theorie is dat managers in staat zijn de resultaten van hun organisaties te beïnvloeden door middel van strategische beslissingen en acties. In *structuration* theorie staat de relatie tussen structuur en actie

[3] Eerste-orde adaptaties behelsen een aanpassing van regels *binnen* een systeem.

centraal. Om tot actie te komen, wordt gesteld dat managers gebruik maken van structuren. De structuurelementen die gemobiliseerd worden, worden tegelijkertijd geacht bevestigd te worden in deze acties en worden hiermee dus in stand gehouden. In andere woorden, structuur is zowel medium als uitkomst van actie. Structuur kan actie ook bemoeilijken. Dit is bijvoorbeeld het geval als voor een bepaalde actie een bestaande structuur niet voldoet. In *structuration* theorie worden managers in principe in staat geacht om bewust die structurele elementen te ontwikkelen en aan te wenden die de gewenste acties mogelijk maken.

Hoewel het samenbrengen van *strategic choice* en *structuration* theorie een duidelijke stap is in de richting van een perspectief op adaptatie waarin zowel deterministische als voluntaristische elementen een plaats hebben, ontbreken er nog factoren die van belang worden geacht voor een dergelijk perspectief. Cognitieve theorie is in het onderzoek toegevoegd aan het theoretisch domein om invulling te geven aan drie specifieke factoren. Ten eerste brengt cognitieve theorie een bredere opvatting van cognitie in adaptatie met zich mee. *Strategic choice* en *structuration* theorie zijn met name gericht op besluitvormers binnen organisaties. Cognitieve theorie geeft ook inzicht in het belang van cognitie op organisatieniveau in veranderingsprocessen. Een tweede bijdrage is de kennis op het gebied van verandering van cognitie. Tenslotte draagt cognitieve theorie bij aan inzicht in beperkingen voortkomend uit cognitie zelf.

De verschillende uitgangspunten van *strategic choice*, *structuration*, en cognitieve theorie zijn geïntegreerd in een raamwerk dat als basis dient voor het empirisch onderzoek (zie Figuur 1).

In het empirisch onderzoek wordt een aantal proposities onderzocht. De eerste betreft de relatie tussen omgevingsverandering en percepties van de omgeving op besluitvormersniveau. De verwachting bestond dat percepties van de omgeving op dit niveau veranderen als de omgeving verandert (P1). Een verandering in percepties zou vervolgens leiden tot een verandering in de basisovertuigingen van de besluitvormers betreffende de omgeving (P2). Uitgaande van de behoefte van besluitvormers om een nieuw beeld van de industrie en de consequenties hiervan voor de organisatie in te brengen in de organisatie, werd het waarschijnlijk geacht dat een verandering in de basisovertuigingen van besluitvormers verandering op gang brengt in middelen (P3) en basisovertuigingen (P4) op organisatieniveau. Tenslotte zullen deze aanpassingen in middelen en basisovertuigingen gezamenlijk resulteren in een werkelijke verandering in het gedrag van leden van de organisatie. Het raamwerk en de proposities geven aanleiding tot een integratief perspectief op de rol van cognitie in adaptatie dat stoelt op meerdere niveaus van analyse en analyse over tijd.

Methodologie

Het onderzoeksontwerp is afgestemd op het raamwerk en het bijbehorende type analyse. Voortbouwend op bestaand onderzoek is gekozen voor case studies als de methode van onderzoek. Hoewel het raamwerk en de proposities richting geven aan de studies is er ook expliciet ruimte gelaten voor bevindingen die niet binnen het gestelde kader vallen.

Zoals gezegd is de bankenindustrie geselecteerd als context voor het onderzoek. De keuze voor één enkele industrie komt voort uit de wens om een zekere mate van homogeniteit te creëren. Om dezelfde reden zijn Nederland en Amerika geselecteerd als de nationale contexten in de studie. Nederlandse banken en hun Amerikaanse tegenhangers zijn in de literatuur bestempeld als relatief innovatieve organisaties. In de jaren '90 hebben omgevingsveranderingen ervoor gezorgd dat de managers van veel van deze banken hun strategie en organisatiestructuur drastisch hebben aangepast. Om de rol van cognitie in adaptatie beter te kunnen begrijpen, zijn twee van deze trajecten bestudeerd; het ene traject heeft plaatsgevonden binnen een Nederlandse financiële dienstverlener, ING, en het andere is het Amerikaanse financieel conglomeraat Citicorp. Beide organisaties behoren tot de top financiële dienstverleners in de wereld; Citicorp –nu opererend onder naam Citigroup- is zelfs de grootste leverancier van financiële produkten en diensten ter wereld. Beide organisaties werden in het midden van de jaren '90 –de tijd waarin de processen zich voltrokken- al gezien als voorlopers in hun industrie.

In de case studies zijn drie typen factoren onderzocht: cognitieve elementen, gedragsfactoren en contextuele factoren. Interviews and kerndocumenten (bijvoorbeeld: formele actieplannen, notulen, evaluatierapporten) waren de belangrijkste bron van informatie over percepties en basisovertuigingen op besluitvormers- en organisatieniveau. Voor het onderzoeken van gedrag –strategische en wederkerende acties- werd met name voortgangsdocumentatie gebruikt als bron. Tenslotte waren interviews en secundaire bronnen met name van belang voor het in kaart brengen van de contextuele factoren. Het feit dat kennisprocessen zich afspelen in de hoofden van mensen, en dus niet direct te observeren zijn, maakt het onderzoeken van cognitie een complexe aangelegenheid. In het voorliggende onderzoek is een aantal specifieke stappen genomen om de validiteit van de data betreffende cognitie te vergroten: (1) het systematisch vergelijken van informatie uit interviews met informatie uit kerndocumenten; (2) het stellen van follow-up vragen in interviews; en (3) het laten verifiëren van de procesbeschrijvingen door sleutelinformanten.

Vier analyses vormden de kern van elke case studie. De eerste betreft de analyse van de belangrijkste percepties en basisovertuigingen op het besluitvormersniveau over tijd. Daarnaast is een reconstructie gemaakt van de strategische acties. De derde analyse betrof algehele veranderingen in organisatiegedrag (wederkerende acties). Tenslotte heeft een analyse plaatsgevonden van relevante organisationele en omgevingsfactoren. Patronen binnen een tussen cases zijn beide meegenomen in het onderzoek.

Empirische resultaten

Het adaptatietraject binnen ING Bank Nederland leverde een aantal interessante bevindingen op met betrekking tot de rol van cognitie in adaptatie. Percepties en basisovertuigingen op besluitvormersniveau hadden elk een specifieke rol maar waren tegelijkertijd sterk met elkaar verbonden over tijd en niveaus van analyse. Terwijl adaptatie werd geïnitieerd op besluitvormingsniveau binnen ING Bank Nederland, was het veranderingsproces niet puur een top-down process. De consensus-cultuur binnen de divisie werd gereflecteerd in de sterke betrokkenheid van middenmanagement. Terwijl sommige middenmanagers een bron van vernieuwing vormden, was er op dit niveau binnen de divisie ook weerstand. De verschillen tussen deze twee groepen managers waren in principe terug te leiden tot de structuren die zij aanwendden in acties. Het onderzoeken van de relatie tussen cognitie en actie bracht een complexiteit aan het licht van interacties tussen onderliggende cognitieve structuren, middelen, en uitkomsten in de vorm van strategische en wederkerende acties. Dit was eveneens het geval in de Citibank case. In sommige gevallen kwamen de dynamieken tussen de case studies overeen, terwijl in andere gevallen sprake was van afwijkende patronen. De mate van fit tussen basisovertuigingen en middelen kwam naar voren uit de studies als een belangrijke determinant in adaptatie. Een goede fit tussen beide structuurelementen bleek een impuls voor adaptatieprocessen van de tweede orde. De consequenties van een minder goede fit tussen cognitie en middelen verschilden. Gedreven door nieuwe basisovertuigingen bleken managers in staat om acties te initiëren in lijn met deze cognitieve structuur ondanks het ontbreken van passende middelen. Echter, wanneer nieuwe middelen ter beschikking stonden maar passende basisovertuigingen ontbraken, kwamen strategische acties en nieuwe wederkerende acties niet of nauwelijks tot stand.

Uit het case-onderzoek komen drie thema's naar voren met betrekking tot de rol van cognitie in adaptatie. Het eerste thema betreft de wijze waarop cognitie verandert in adaptatieprocessen. Binnen dit thema zijn twee kernpatronen geïdentificeerd: (1) de wederkerige relatie tussen percepties en basisovertuigingen over besluitvormersniveau; en (2) de wijze waarop nieuwe basisovertuigingen zich ontwikkelen en onderdeel uit gaan maken van de organisatierealiteit. Met betrekking tot het eerste patroon was het interessant te zien dat percepties invloed hebben op de manier waarop basisovertuigingen zich ontwikkelen binnen een organisatie. Het type perceptie speelt hierbij een specifieke rol. Percepties gebaseerd op opgedane ervaringen (en daarmee op *bestaande* basisovertuigingen) hebben een bevestigend effect, terwijl percepties gebaseerd op informatie direct genomen uit de omgeving een potentieel vernieuwende invloed hebben. Daarnaast blijkt uit de cases dat percepties ook dienen ter bevestiging van opkomende basisovertuigingen. Basisovertuigingen worden niet alleen beïnvloed door percepties; inzicht in de rol van basisovertuigingen in adaptatie was van belang voor het begrijpen hoe en waarom bepaalde percepties opkwamen op besluitvormingsniveau.

Het tweede patroon betreft vier typen activiteiten in de vernieuwing van basisovertuigen die uit de cases naar voren zijn gekomen: reflecteren op bestaande basisovertuigingen, recreëren van basisovertuigingen, implementeren van nieuwe basisovertuigingen, en behouden van de nieuwe 'organisatierealiteit'. Deze typen zijn tot op bepaalde hoogte terug te vinden in andere organisatiestudies maar het verbinden van de activiteiten aan elkaar in de context van veranderende cognitie is een bijdrage van dit onderzoek.

Een tweede thema dat is opgekomen in de case studies is de interactie van structuur en actie over tijd en op verschillende niveaus van analyse als de kern van adaptatie. Structuur refereert naar de basisovertuigen en middelen die actoren aanwenden in acties. Er is een onderscheid gemaakt naar twee typen acties in dit onderzoek: strategische en wederkerende acties. Twee patronen zijn beschreven in het kader van het tweede thema: (1) het effect van structuur op actie; en (2) het effect van actie op structuur. In de case studies zijn er twee effecten van structuur op actie die zich herhalen. Ten eerste geeft het onderzoek inzicht in de wijze waarop structuur het ondernemen van actie bemoeilijkt. Daarentegen maakt structuur actie juist ook vaak mogelijk. Of er sprake is van het eerste of het tweede effect blijkt veelal afhankelijk te zijn van de fit tussen basisovertuigingen en middelen. Uit het onderzoek komt voren dat het managen van middelen makkelijker aandacht krijgt in adaptatieprocessen dan het managen van basisovertuigingen. Anders gezegd, besluitvormers richten zich in het algemeen eerder op uitkomsten dan op de regels die ten grondslag liggen aan deze uitkomsten. Naast de effecten van structuur op actie zijn er ook twee basiseffecten van actie op structuur. Enerzijds kan actie een onderliggende structuur bevestigen, anderzijds kan het zo'n structuur ook ter discussie stellen. In het tweede thema komt middenmanagement op als een niveau van belang in adaptatie. Om nieuwe basisovertuigingen deel te kunnen maken van de organisatierealiteit lijkt het voor besluitvormers essentieel om middenmanagers actief te betrekken in dit proces. Strategische acties gericht op de middelen en basisovertuigingen op dit niveau kunnen de bijdragen van middenmanagement sterk beïnvloeden.

De rol van middenmanagement in adaptatieprocessen is ook direct het derde thema dat is voortgekomen uit het onderzoek. Drie typen bijdragen van middenmanagers zijn onderkend: (1) weerstand bieden aan organisatieverandering; (2) bewaken van de continuiteit van de organisatie; en (3) vergemakkelijken van en voortbouwen op top-down adaptatieprocessen. De rollen die middenmanagers spelen in een veranderingstraject blijken onder meer af te hangen van de basisovertuigingen en middelen (structuur) die zij aanwenden –en waar zij dus in eerste instantie over moeten kunnen beschikken- om te komen tot strategische en wederkerende acties. Managers die zichzelf sterk associëren met de bestaande regels en systemen hebben veelal een type-1 of –2 rol, terwijl managers die zich sterk vereenzelvigen met de nieuwe conceptie van de business vooral een versterkende invloed zullen hebben.

Conclusies

Op basis van het onderzoek kan geconcludeerd worden dat cognitie op verschillende wijzen en over verschillende niveaus een belangrijke rol speelt in adaptatieprocessen binnen organisaties. Het toepassen van een integratief raamwerk, gebaseerd op inzichten uit strategic choice, structuration, en cognitieve theorie, op twee verschillende adaptatietrajecten leverde een aantal nieuwe inzichten op in de relatie tussen cognitie en adaptatie. Ten eerste heeft de interpretatie van percepties en basisovertuigingen als twee afzonderlijke maar nauw verbonden elementen van cognitie geholpen om de ontwikkeling van nieuwe cognitie in adaptatie beter in beeld te brengen en te begrijpen. Een tweede kernresultaat van de studie is de onderkenning van vier typen activiteiten in het eigenlijke vernieuwingsproces van cognitie. Met het in kaart brengen van deze activiteiten werd de duidelijk dat dit proces zowel een sterke strategische als organisatorische component bevat. Ten derde kwam uit het beeld van adaptatie als interacties van structuur en actie over tijd en niveaus van analyse naar voren dat een fit tussen basisovertuigingen en middelen van groot belang is voor de mate van effectiviteit van adaptatie. De rol van het middenmanagement bleek hierbij belangrijker dan in eerste instantie –op basis van literatuuronderzoek- verwacht. Niet alleen fungeerden middenmanagers als een bron van continuïteit in organisaties, ook hielpen zij actief mee aan het realiseren van de benodigde vernieuwingen. Alleen wanneer de basisovertuigingen van middenmanagers sterk afweken van het te implementeren business model ontstond weerstand tegen de beoogde verandering.

De studie geeft in verschillende opzichten een nieuw perspectief op de rol van cognitie in adaptatie. De bouwstenen van dit perspectief waren het onderscheid tussen verschillende typen cognitie, het beeld van adaptatie als interacties tussen structuur en actie, en van adaptatie als een cognitief proces over meerdere organisatieniveaus. Het managen van adaptatie is een proces waarin onderliggende cognitieve structuren, middelen, en uitkomsten een evenredig deel moeten innemen. Toekomstig onderzoek is nodig om de inzichten die dit perspectief heeft opgeleverd verder te verdiepen. Dit zal niet alleen de kennis van wetenschappers op dit gebied vergroten, maar vooral ook managers helpen om de adaptatieprocessen in hun organisaties op effectieve wijze te managen.

BIOGRAPHY

Marjolijn Dijksterhuis (Amstelveen, July 12, 1974) studied business administration from 1992 to 1997 at the Erasmus University Rotterdam, where she obtained her Master's Degree with a specialization in strategic management. From 1997 until 2001 she held a position as Research Associate at the Department of Strategy and Business Environment at the Rotterdam School of Management. From 2001 on, she continued to work at the same department as an Assistant Professor teaching various courses on strategy. Her research has been published in various journals and books, and has been presented at international conferences. In 2001, she published an article in *Organization Science* about how cognition influences the emergence of new organizational forms. Marjolijn is currently Assistant Director of the Executive MBA Program at the Rotterdam School of Management.

ERASMUS **R**ESEARCH **I**NSTITUTE OF **M**ANAGEMENT (ERIM)

ERIM PH.D. SERIES

RESEARCH IN MANAGEMENT

ERIM Electronic Series Portal: http://hdl.handle.net/1765/1

Title:	**Operational Control of Internal Transport**
Author:	J. Robert van der Meer
Promotor(es):	Prof.dr. M.B.M. de Koster, Prof.dr.ir. R. Dekker
Defended:	September 28, 2000
Series number:	1
ISBN:	90-5892-004-6

Title:	**Quantitative Models for Reverse Logistics**
Author:	Moritz Fleischmann
Promotor(es):	Prof.dr.ir. J.A.E.E. van Nunen, Prof.dr.ir. R. Dekker
Defended:	October 5, 2000
Series number:	2
Published:	Lecture Notes in Economics and Mathematical Systems, Volume 501, 2001, Springer Verlag, Berlin,
ISBN:	3540 417 117

Title:	**Optimization Problems in Supply Chain Management**
Author:	Dolores Romero Morales
Promotor(es):	Prof.dr.ir. J.A.E.E. van Nunen, dr. H.E. Romeijn
Defended:	October 12, 2000
Series number:	3
ISBN:	90-9014078-6

Title:	**Layout and Routing Methods for Warehouses**
Author:	Kees Jan Roodbergen
Promotor(es):	Prof.dr. M.B.M. de Koster, Prof.dr.ir. J.A.E.E. van Nunen
Defended:	May 10, 2001
Series number:	4
ISBN:	90-5892-005-4

Title:	**Rethinking Risk in International Financial Markets**
Author:	Rachel Campbell
Promotor(es):	Prof.dr. C.G. Koedijk
Defended:	September 7, 2001
Series number:	5
ISBN:	90-5892-008-9

Title:	**Labour flexibility in China's companies: an empirical study**
Author:	Yongping Chen
Promotor(es):	Prof.dr. A. Buitendam, Prof.dr. B. Krug
Defended:	October 4, 2001
Series number:	6
ISBN:	90-5892-012-7

Title:	**Strategic Issues Management:** **Implications for Corporate Performance**
Author:	Pursey P. M. A. R. Heugens
Promotor(es):	Prof.dr.ing. F.A.J. van den Bosch, Prof.dr. C.B.M. van Riel
Defended:	October 19, 2001
Series number:	7
ISBN:	90-5892-009-7

Title:	**Beyond Generics;** **A closer look at Hybrid and Hierarchical Governance**
Author:	Roland F. Speklé
Promotor(es):	Prof.dr. M.A. van Hoepen RA
Defended:	October 25, 2001
Series number:	8
ISBN:	90-5892-011-9

Title:	**Interorganizational Trust in Business to Business** **E-Commerce**
Author:	Pauline Puvanasvari Ratnasingam
Promotor(es):	Prof.dr. K. Kumar, Prof.dr. H.G. van Dissel
Defended:	November 22, 2001
Series number:	9
ISBN:	90-5892-017-8

Title: **Outsourcing, Supplier-relations and Internationalisation: Global Source Strategy as a Chinese puzzle**
Author: Michael M. Mol
Promotor(es): Prof.dr. R.J.M. van Tulder
Defended: December 13, 2001
Series number: 10
ISBN: 90-5892-014-3

Title: **The Business of Modularity and the Modularity of Business**
Author: Matthijs J.J. Wolters
Promotor(es): Prof. mr. dr. P.H.M. Vervest, Prof. dr. ir. H.W.G.M. van Heck
Defended: February 8, 2002
Series number: 11
ISBN: 90-5892-020-8

Title: **The Quest for Legitimacy; On Authority and Responsibility in Governance**
Author: J. van Oosterhout
Promotor(es): Prof.dr. T. van Willigenburg, Prof.mr. H.R. van Gunsteren
Defended: May 2, 2002
Series number: 12
ISBN: 90-5892-022-4

Title: **Information Architecture and Electronic Market Performance**
Author: Otto R. Koppius
Promotor(es): Prof.dr. P.H.M. Vervest, Prof.dr.ir. H.W.G.M. van Heck
Defended: May 16, 2002
Series number: 13
ISBN: 90-5892-023 - 2

Title: **Planning and Control Concepts for Material Handling Systems**
Author: Iris F.A. Vis
Promotor(es): Prof.dr. M.B.M. de Koster, Prof. dr. ir. R. Dekker
Defended: May 17, 2002
Series number: 14
ISBN: 90-5892-021-6

Title:	**Essays on Agricultural Co-operatives; Governance Structure in Fruit and Vegetable Chains**
Author:	Jos Bijman
Promotor(es):	Prof.dr. G.W.J. Hendrikse
Defended:	June 13, 2002
Series number:	15
ISBN:	90-5892-024-0

Title:	**Analysis of Sales Promotion Effects on Household Purchase Behavior**
Author:	Linda H. Teunter
Promotor(es):	Prof.dr. ir. B. Wierenga, Prof.dr. T. Kloek
Defended:	September 19, 2002
Series number:	16
ISBN:	90-5892-029-1

Title:	**Incongruity between Ads and Consumer Expectations of Advertising**
Author:	Joost Loef
Promotor(es):	Prof.dr. W.F. van Raaij, prof. dr. G. Antonides
Defended:	September 26, 2002
Series number:	17
ISBN:	90-5892-028-3

Title:	**Creating Trust between Local and Global Systems**
Author:	Andrea Ganzaroli
Promotor(es):	Prof.dr. K. Kumar, Prof.dr. R.M. Lee
Defended:	October 10, 2002
Series number:	18
ISBN:	90-5892-031-3

Title:	**Coordination and Control of Globally Distributed Software Projects**
Author:	Paul C. van Fenema
Promotor(es):	Prof.dr. K. Kumar
Defended:	October 10, 2002
Series number:	19
ISBN:	90-5892-030-5

Title: **Improving the flexibility and profitability of ICT-enabled business networks: an assessment method and tool.**
Author: Dominique J.E. Delporte- Vermeiren
Promotor(es): Prof.mr.dr. P.H.M. Vervest, Prof.dr.ir. H.W.G.M. van Heck
Defended: May 9, 2003
Series number: 20
ISBN: 90-5892-040-2

Title: **Organizing Knowledge in Internal Networks. A Multilevel Study**
Author: Raymond van Wijk
Promotor(es): Prof.dr.ing. F.A.J. van den Bosch
Defended: May 22, 2003
Series number: 21
ISBN: 90-5892-039-9

Title: **Cyclic Railway Timetable Optimization**
Author: Leon W.P. Peeters
Promotor(es): Prof. Dr. L.G. Kroon, Prof.dr.ir. J.A.E.E. van Nunen
Defended: June 6, 2003
Series number: 22
ISBN: 90-5892-042-9

Title: **Dealing with Derivatives: Studies on the role, informational content and pricing of financial derivatives**
Author: Cyriel de Jong
Promotor(es): Prof.dr. C.G. Koedijk
Defended: June 19, 2003
Series number: 23
ISBN: 90-5892-043-7

Title: **Processing of Erroneous and Unsafe Data**
Author: Ton de Waal
Promotor(es): Prof.dr.ir. R. Dekker
Defended: June 19, 2003
Series number: 24
ISBN: 90-5892-045-3

Intelligent Adaptation: Organizational dynamics of cognition and action in the changing Dutch and U.S. banking industries

The ability to anticipate environmental developments is crucial for firms to survive in the long run. Despite a ubiquity of research into how adaptation takes place, there is still a lot to be understood. This study applies a cognitive perspective to explore the dynamics of adaptation within two large financial services providers in different national contexts. From the cases emerge a number of patterns concerning the link between perceptions and business beliefs of decision-makers, interrelations between structure and action, and the role of middle managers in top-down organizational adaptation processes. The study suggests that the explicit multi-level consideration of both surface-level actions and underlying cognitive dynamics can help managers adapt their organizations effectively to changing environments.

ERIM

The Erasmus Research Institute of Management (ERIM) is the Research School (Onderzoekschool) in the field of management of the Erasmus University Rotterdam. The founding participants of ERIM are the Rotterdam School of Management and the Rotterdam School of Economics. ERIM was founded in 1999 and is officially accredited by the Royal Netherlands Academy of Arts and Sciences (KNAW). The research undertaken by ERIM is focussed on the management of the firm in its environment, its intra- and inter-firm relations, and its business processes in their interdependent connections. The objective of ERIM is to carry out first rate research in management, and to offer an advanced graduate program in Research in Management. Within ERIM, over two hundred senior researchers and Ph.D. candidates are active in the different research programs. From a variety of academic backgrounds and expertises, the ERIM community is united in striving for excellence and working at the forefront of creating new business knowledge.

The ERIM PhD Series contains Dissertations in the field of Research in Management defended at Erasmus University Rotterdam. The Dissertations in the Series are available in two ways, printed and electronical. ERIM Electronic Series Portal: http://hdl.handle.net/1765/1.

ERIM
ERASMUS RESEARCH INSTITUTE OF MANAGEMENT

www.research-in-management.nl/

ISBN 90-5892-048-8