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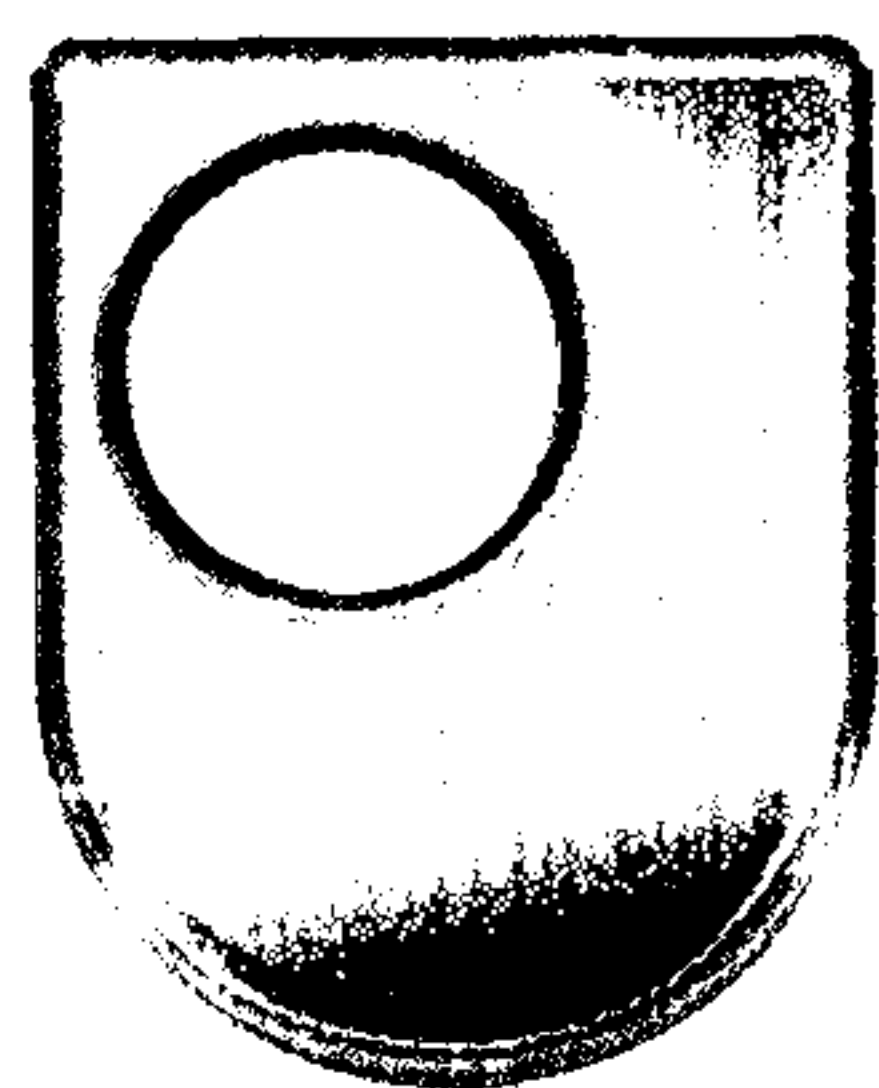
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**Understanding Change in the Deutsche Telekom Group:  
The Problem of Organisational Learning at  
Top Management Level**

**Beate Bungartz**

Submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy of The Open University  
Milton Keynes / United Kingdom



**The Open University**

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## **Declaration**

This thesis represented in accordance with the regulations for the degree of Doctor of Philosophy (Ph.D) of The Open University, Milton Keynes. The work described in this thesis is entirely original and my own, unless otherwise indicated. None of the material contained hereafter has been submitted for a degree at any other university. The interpretations in this thesis are the sole responsibility of the author, and do not in any way represent the views of the case company or The Open University.

# Abstract

Performance and sustainability of a company are often viewed as being strongly influenced by its top management. And yet, despite a rich literature in the field of organisational learning, little is known about how the top management of a company acquires and maintains the knowledge of “how to run the business”, especially in fast-changing environments. This study focuses on Deutsche Telekom as it sought to transform itself during a turbulent period from a traditional operator into an international, diverse business player.

This work seeks to extend the theory and understanding of organisational learning to this particular group of people at the apex of the organisation and contributes to the debate of top-level organisational learning (TLOL) as a dynamic capability. The study, which is based upon longitudinal, qualitative research, featuring separate cases embedded within a single, large organisation, explores the methods and outcomes of TLOL. Comparative cases in different organisational settings and business contexts, at corporate and at divisional level, were used in this diversified organisation to empirically investigate the deployed initiatives and methods as well as drivers of and barriers to TLOL.

The research contributes to and expands upon current theory by providing empirical evidence that the interplay between exogenous factors, strategy, the characteristics of the organisation and of the top management group shapes the methods used for TLOL. It provides evidence of the link between learning method and organisational outcomes. The study finds that in the turbulent environment described, the deployed methods for TLOL in the mature part of the organization differed substantially from the learning methods used in the young, fast-growing divisions. The learning methods used did, however, not produce exclusively positive results. Finally, by developing a new conceptual framework, the study allows researchers and management to systematically examine and shape top-level organisational learning within their own organisations.

# Abbreviations

AG	' <i>Aktien Gesellschaft</i> ' ; public limited company (plc)
AMP	Advanced Management Programme
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CMO	Chief Marketing Officer
COO	Chief Operating Officer
CoPs	Communities of Practice
CTO	Chief Technology Officer
CV	Curriculum Vitae
DT	Deutsche Telekom
DTAG	Deutsche Telekom Aktiengesellschaft (public limited company)
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
EVA	Economic Value Added
FMCG	Fast Moving Consumer Goods
HQ	Headquarters
HR	Human Resources
IPO	Initial Public Offering, Going Public
ISDN	Integrated Services Digital Network
IT	Information Technology
KAM	Key Account Management
LO	Learning Organisation
M&A	Merger & Acquisitions
MBA	Master of Business Administration
Mgrs.	Managers
Mgt.	Management
NDU	" <i>Nachdiplom in Unternehmensführung</i> "; a specific training course called „continuing studies in company management“
OD	Organisational Development
OE	Organisational Effectiveness
TC	Telecommunication
TEC	Top Executive Committee
TLOL	Top-Level Organisational Learning
TML	Top Management Learning
T-Com	DT business unit for fixed line business
T-Mobile	DT business unit for mobile business
T-Online	DT business unit for online business
T-Systems	DT business unit for Systems solutions business
vs.	versus

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# Chapter One - Setting the Scene

## 1.1 Introduction

Although one can read much in these times about companies that are undergoing fundamental change, hardly any other market is subjected to such an enormous dynamic as the telecommunications industry.

In Germany, for decades the telecommunications market was dominated by a state-owned and -governed monopolist, which operated under the constitutional requirement to provide an infrastructural service, and which was run predominantly by technically skilled civil servants. The liberalisation of the telecommunications market, globalisation, increasing customer expectations, cost competition and privatisation required fundamentally altering the overall orientation and alignment of Deutsche Telekom, the leading telecommunication company in Europe. This confronted the top management<sup>1</sup> with a series of challenges with particular constraints along the way.

Firstly, the shift from a domestically-oriented, 'stand-alone' traditional operator in a mature market to a player in the telecommunications industry of international reach and with subsidiaries in fast growing and highly competitive new markets. This presupposed the transfer of the company to a private stock-corporation, allowing Deutsche Telekom to engage in international joint ventures, from which it had been (partly) withheld by its constitutional mandate.

The second challenge consisted in the radical change of the cumbersome, bureaucratic, technical-oriented organisation towards a flexible, efficient and customer-oriented company. This raised particular questions, given that a very significant share of employees<sup>2</sup> remained 'Beamte' (civil servants) on 'permanent loan' to Deutsche Telekom, with their employment conditions still determined by parliamentary legislation, unrestricted

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<sup>1</sup> For the definition of the 'top management' it is referred to section 3.8.4.

<sup>2</sup> In 2002 still ca. 50% of all employees in Germany.

employment security and their status retained for life<sup>3</sup>. And finally, it was sought to achieve a fundamental cultural change from sovereign to customer- and shareholder-oriented behaviour.

But how to do what a former member of Deutsche Telekom's supervisory board called "*leading the elephant*" ? (Glutz 2001, p. 96) How should the top management tackle the problem of transforming Deutsche Telekom during a turbulent period into a private competitive, globally acting stock-corporation? And how should the top management themselves acquire and maintain the knowledge of 'how to run such a business'?

Inspired by existing theories in the field of top-level organisational learning (TLOL), the position advanced in this thesis is that adapting to such radical change, as at Deutsche Telekom, requires learning by and facilitated by the top management which is reflected in observable actions and changes of behaviour of the top management and its organisational environment.

## **1.2 Scope of the Thesis and the Need for New Empirical Work**

The vast, partly confusing and little-integrated organisational learning literature consisting of a prescriptive and an analytical or descriptive stream shows that the subject of 'how to deal with strategic change' has been a central research topic for several decades.

Although, the prescriptive branch of literature on the 'learning organisation' (Senge 1990) aims at improving organisational performance by means of showing how organisations *should* learn, no veridical knowledge about organisational learning has been produced so

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<sup>3</sup> In Germany from the day of their appointment, Beamte (civil servants) cannot be dismissed except for very serious disciplinary offences. The legal determination of their employment also includes training, the structure of career progression, and their (at least theoretically) functional and geographic mobility.

far. This can be attributed to the fact that it is based primarily on practical experience and knowledge of consultants and practitioners instead of theoretical and empirical research.

In contrast to that, most of the debates in the analytical stream of organisational learning literature centre on the different concepts and opinions concerning the players, processes, outcomes and interdependencies between different learning levels of organisational learning, but fail to come to a common agreement on the very definition of the concept of organisational learning itself (see e.g. Fiol and Lyles 1985, Tsang 1997). And although it can be assumed that the concepts of strategic change, organisational learning and top managers must be a central part of any explanatory theory, if scholars wish to understand why organisations behave and perform the way they do, this area remains relatively unexplored.

Based upon two streams of literature of the elitist approach of organisational learning (e.g. Hambrick 1994, Finkelstein and Hambrick 1996, Richter 1999), which fired the interest in this research and the search for an integrated approach, this study seeks to contribute to fill this salient gap.

The first of these two streams of literature comprehends the top managers as ‘actors’ or agents of learning who undertake actions. It is not surprising that existing theories assign a key role and task to top managers with regard to the management of strategic change. *Richter* (1999) finds, however, based upon the research on the nature of executive work (Mintzberg 1973), that most learning of top managers was unintended or accidental and a by-product of the executives’ work. An understanding of the nature of executive work has been produced (see Barnard 1938, Mintzberg 1973) but apart from the fact “.. *that the bulk of managers’ learning takes place in the work place, as a result of their work and role activities*” (Antonacopoulou 2002, p. 5), and that the top management and the organisation form an inseparable learning community that can mutually support or hinder

each other (Klimecki 1997), still little is known about the interplay between top management and its learning environment and the creative and interactive process of top-level organisational learning. Due to that and in the absence of standardised responses to strategic change, numerous authors such as *Richter* (1999) or *Kammel* (2000, p. 337) express concern about the lack of specific empirical research on methods and outcomes of top-level organisational learning.

In the mentioned second stream of literature that is derived from the upper echelons-/strategic leadership theory (Hambrick and Mason 1984, Finkelstein and Hambrick 1996), top managers are rather comprehended as resources and the literature and research investigates if executives matter and what effects top executives, including the wide set of experiences they bring to their positions, have on organisations, especially those that undergo strategic change. *Hambrick and Mason* (1984), as two of the most influential proponents of that literature, come to the conclusion that strategies and effectiveness are reflections of the cognitive bases of powerful actors in the organisation. So if the actors change, so do the organisational strategies and outcomes. Also academic scholars of other disciplines (e.g. dynamic capabilities and absorptive capacity: Eisenhardt and Martin 2000, Zollo and Winter 2002, Zahra et al. 2006, Zahra and George 2002) view the role of the top management and the influence exercised by top managers to be key in understanding the way organisations adapt to their environment.

However, executive actions—and thus learning—are only reflected in organisational outcomes when there is high managerial discretion (Finkelstein and Hambrick 1996), which is in turn strongly influenced by the interplay between the top management and its external and organisational learning environment. This again is still a less explored area, which requires further empirical investigation.

The objective of this study is to contribute to fill this gap and to render a contribution towards a better understanding of methods and outcomes of TLOL. Based upon *Berends et al.'s* (2003) suggestion to abandon consideration of individuals and the organisation as two separate subjects of learning and to replace it by two ways of considering the social phenomenon of organisational learning, which differentiates between the agents of learning and organisational references for analytic reasons only, this study attempts to contribute to the integration of the different streams of literature in this field.

### **1.3 Structure of the Thesis**

Before the relevant literature is reviewed, it is necessary to gain an understanding of the environment underlying the research. The remainder of this thesis is structured as follows:

Chapter two highlights the current debates in the literature that are relevant to the proposed research. Likewise, issues essential to the inquiry of TLOL will be examined. Based upon that, a conceptual framework will be derived from the literature review, and knowledge gaps in the literature as well as researchable questions to be explored in this research will be identified.

Chapter three systematically derives the research design and methodology utilised to explore the research phenomenon. Beyond general methodological debates on the philosophical stance, research paradigm, design and corresponding strengths and limitations, an attempt is made to tie the methodological concerns and dilemmas related to the concrete research questions and the role of the researcher together. Having discussed some specific methodological issues resulting from doing research on top-level organisational learning, research methods and the strategy and process for data analysis are considered in order to demonstrate the trail of evidence.

Chapter four outlines the four cases of the study consisting of one corporate (i.e. DT Headquarters) and three business organisations (i.e. Fixed network, Mobile/Online- and Systems businesses). After a short look at each case organisation's history and characteristics, the case-specific findings are provided and finally summarised at the end.

In chapter five, based upon the analysis of data collected from the four case studies, it is sought to find explanations for these patterns. Comparisons are drawn with existing literature and theories outlined in chapter two.

Finally, chapter six concludes the thesis. Theoretical, practical and methodological contributions and implications are addressed as well as research limitations. Future research directions and opportunities for further investigation are elaborated.

# Chapter Two – Existing Literature and Theory

## 2.1 Introduction

As mentioned in the introductory chapter and as can be taken from *Harvey and Denton's* (1999) empirical study on the emergence of the prescriptive and analytical theories of organisational learning, a series of challenges inspired by strategic change and fundamental changes in the nature and intensity of competition triggered the broad scientific and practical interest in the concept. Although there is relatively little dedicated literature on organisational learning at top management level, it will be shown in this chapter that there are strong links between the vast and little-integrated different streams of literature on organisational learning and the top management. Hence, the concept of top-level organisational learning is seen in this study as a valid and logical response to the ever more rapid pace of change in the business environment and the increasing importance of capabilities and knowledge at top management level as a primary source of competitive advantage.

The objective of the following chapter is to present and discuss the current debates of top-level organisational learning (TLOL) in the literature and to show how this study relates to other work in the field. It is the thesis writer's version of the literature and is directed at summarising, evaluating, clarifying and/or integrating the content of primary reports in the fields of organisational learning with a particular view on the top management (following Cooper 1988, p. 107).

The literature review starts after a quick glance at the historical development of the concept of organisational learning with a comprehensive consideration of conceptual issues and the definition of the concept of top-level organisational learning as it will be used in this study. As will be shown, this is a basic precondition for understanding the nature of TLOL and so is of particular importance when doing research in this field. It will



also contribute to the identification of starting points as well as potential outcomes of organisational learning at top management level. The conceptual issues will be followed by a critical review and discussion of the writing of relevance on TLOL. This will lead to a series of research questions which will be investigated in more detail in the empirical part of this study.

## **2.2 Organisational Learning at Top Management Level – Conceptual Issues**

### **2.2.1 Roots of the Literature on Top-Level Organisational Learning (TLOL)**

The concept of TLOL is composed of two basic building blocks, i.e. the ‘top management’ and ‘organisational learning’. Although, as will be shown below, they often do not refer to each other in an explicit way, they are characterised by a salient parallel historical development which deserves attention.

The concept of organisational learning thus refers to the notion of organisations as learning systems, which can be traced to *Taylor* (1911), who believed that when management ‘truths’ were articulated and measured, this learning could be transferred to other employees and thus improve the efficiency of the organisation. The concept of organisational learning itself was first mentioned in the early 1950s—against the background of this study interestingly in reference to the birth and death of public administrations (Simon 1953)—and was further refined by *March* and *Simon* in the late 1950s (March and Simon 1958). Some researchers and theorists became attracted by the idea (e.g. Argyris 1957; Argyris 1964; Cyert and March 1963; Cangelosi and Dill 1965), but it took some time until a regular stream of articles and books became to flow. It needed several influential works (e.g. Argyris and Schoen 1978; Hedberg 1981; Fiol and Lyles 1985) until the attention of scholars from disparate disciplines, from theorists and practitioners was attracted, and a flood of publications, of academic and applied articles and books has been released in the past 20 years in the field (e.g. Levitt and March

1988; Senge 1990; Epple et al. 1991, Cook and Yanow 1993; Levinthal and March 1993; Schein 1993, Nonaka 1994; Pedler 1994; Tsang 1997; Berthoin Antal et al. 2001b; Friedman et al. 2001).

Academic interest in top management, with the most important percentage of literature and research concentrating on CEOs and top management teams of a very limited size, underwent a similar development. After first remarkable work in the 1950s and 1960s (e.g. Barnard 1938; Selznick 1957; Chandler 1962), some of the most inspiring articles and studies were published in the 1970s and 1980s (e.g. Child 1972; Mintzberg 1973; Kotter 1982; Hambrick and Mason 1984) and brought about a rise in the prominence of top management literature (see e.g. Wiersema and Bantel 1992; Hambrick 1994; Finkelstein and Hambrick 1996; Miller et al. 1998).

Although one might find that this historical development happened by happenstance, today's organisational learning literature and research rather indicates that the concepts of 'organisational learning' and the 'top management' are somehow interrelated. Although this will be considered in greater detail in section 2.2.2.2 it is also confirmed by the current organisational learning literature and research which is anchored in an increasing number of scientific scholarships and disciplines such as strategy, top management learning, strategic leadership, organisation and management development, knowledge management, organisation studies and organisational behaviour research that places a particular emphasis on the meaning or role of the top management.

Against that background it might be no surprise that there is no agreement in the literature as regards a common definition of the concept of top-level organisational learning. Hence, a more in-depth consideration is required, which will now follow in the next sections.

## 2.2.2 Top-Level Organisational Learning – Conceptual Differentiation

There is a particular need for defining the concept of TLOL which will be used for the purpose of this study as it is symptomatic of the dynamics of the development of the field that the one element on which there is no agreement in the literature is the definition of organisational learning itself. The very definition of organisational learning is subject to controversy and flux (Berthoin Antal et al. 2001b, p. 921). *Tsang* even stated: “... definitions are as many as there are writers on the subject.” (Tsang 1997, p. 75) and so the conclusion that *Fiol and Lyles* drew in 1985 is still valid:

*“Although there exists widespread acceptance of the notion of organizational learning and its importance to strategic performance, no theory or model of organizational learning is widely accepted”* (Fiol and Lyles 1985, p. 803).

The heterogeneous definitions result on the one hand from a fundamental dichotomy between prescriptive approaches brought in by practitioners and consultants and the descriptive and analytic theories of scientists. On the other hand, this variety of definitions is emanating from different concepts and opinions concerning the players in organisational learning, relationships and interdependencies between different learning levels<sup>4</sup> (i.e. ‘who learns?’), different opinions concerning processes and learning mechanisms (i.e. ‘how do organisations learn?’) and their efficiency as well as learning results (i.e. ‘when do organisations learn and with what results?’). Hence, it will not be possible here to provide a comprehensive review of the different approaches to organisational learning. And so the table below can just provide a faint idea of the large variety of definitions of the concept of organisational learning.

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<sup>4</sup> Learning levels correspond to individual, team, organisation, environment.

Author	Definition of organisational learning
Argyris and Schön (1996)	<p><i>“Organizational learning occurs when individuals within an organization experience a problematic situation and inquire into it on the organization’s behalf. They experience a surprising mismatch between expected and actual results of action and respond to the mismatch through a process of thought and further action that leads them to modify their images of organization or their understandings of organizational phenomena and to restructure their activities so as to bring outcomes and expectations into line, thereby changing organizational theory-in-use. In order to become organizational, the learning that results from organizational inquiry must become embedded in the images of organization held in its members’ minds and/or in the epistemological artefacts (the maps, memories, and programs) embedded in the organizational environment”</i> (Argyris and Schön 1996, p. 16).</p>
Hedberg (1981)	<p><i>“Learning takes place when organizations interact with their environment: organizations increase their understanding of reality by observing the results of their action”</i> (Hedberg 1981, p.3).</p>
Fiol and Lyles (1985)	<p><i>“Organizational learning means the process of improving actions through better knowledge and understanding”</i> (Fiol and Lyles 1985, p.803).</p>
Huber (1991)	<p><i>“An entity learns if, through its processing of information, the range of its potential behaviours is changed”</i> (Huber 1991, p. 89).</p>
March and Olsen (1976)	<p><i>“Organizations ... learn from experience. They act, observe, and draw implications for future action”</i> (March and Olsen 1976, p. 67).</p>
Dodgson (1993)	<p><i>“Learning .... can be described as the ways firms build, supplement and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces”</i> (Dodgson 1993, p. 377).</p>
Levitt and March (1988)	<p><i>“.... Organizations are seen as learning by encoding inferences from history into routines that guide behaviour”</i> (Levitt and March 1988, p. 320).</p>
Duncan and Weiss (1979)	<p><i>“The dominant coalition represents those organizational members who at any point in time have the power to influence the strategies, goals, and design of the organization... Organizational learning thus becomes that process in the organization through which members of the dominant coalition develop, over time, the ability to discover, when organizational changes are required and what changes can be undertaken which they believe will succeed...”</i> (Duncan and Weiss 1979, p. 77-78).</p> <p><i>“Organizational learning can be understood as the process within the organization by which knowledge about action-outcome relationships and the effect of the environment of these relationships is developed”</i> (Duncan and Weiss 1979, p.84).</p>

Berends et al. (2003)	<i>"...we... define learning as the process of changing the range of an entity's (potential) behaviour based on the development of its knowledge"</i> (Berends et al. 2003, p.12).
Friedman et al. (2001)	<i>"... is a process of inquiry (often in response to errors or anomalies) through which members of an organization develop shared values and knowledge based on past experience of themselves and of others"</i> (Friedman et al. 2001, p.757).
Tannenbaum (1997)	<i>"A change in an organization's capacity for doing something new"</i> (Tannenbaum 1997, p. 438).
Cook and Yanow (1993)	<i>"... when a group acquires the know-how which enables it to carry out its collective activities"</i> (Cook and Yanow 1993, p. 13).

Table 1: Concepts of Organisational Learning

For further definitions of the concept of organisational learning, reference is made to numerous authors who have attempted to map and cluster the rich organisational learning literature in many ways (e.g., Shrivastava 1983; Fiol and Lyles 1985; Levitt and March 1988; Huber 1991; Dodgson 1993; Levitt and March 1988; Cohen and Sproull 1996; Easterby-Smith et al. 1997, 2008c; Huysman 1999). But also none of these reviews is able provide an exhaustive view on the concept of organisational learning.

The reasons for that will become clear in the following sections on the concept of TLOL where the views held in the literature that shaped the concept of TLOL as it is used for the purpose of this study will be considered in greater detail.

### 2.2.2.1 Triggers of Organisational Learning at Top Management Level

As already described in the introductory section of the literature review about the historical development of TLOL, the concept of organisational learning is above all viewed as a response to the accelerated rate of change and so to exogenous influences. The founding fathers of the concept (Cyert and March 1963; March and Olsen 1975; Argyris and Schoen 1978) considered organisational learning as an adaptive behaviour of organisations over time. *Cyert and March (1963)* comprehended organisational learning as the response to changes in the environment of the organisation and described

organisational learning as a result of decision making processes in which decision makers learn by trial and error what can be done. *Argyris and Schön* (1978) considered organisational learning as a consequence of the detection of organisational errors and anomalies and distinguished—according with the way to detect and correct errors—three types of organisational learning (i.e. single loop-, double loop- and deuterio-learning).

Those authors claiming that organisational learning was a way to adapt to environmental demands (e.g. Cyert and March 1963; Lawrence and Lorsch 1967; Argyris and Schoen 1978; Duncan and Weiss 1979; Shrivastava 1983; Fiol and Lyles 1985; Levitt and March 1988) neglect, however, an active approach to organisational learning. They were therefore criticised by a another group of contributors in the field for their passive approach to organisational learning which makes learning of organisations and their members completely dependent upon forces operating in the external world or a defective function and the wish to stay aligned with the environment. According to proponents of the strategic management literature, the passive approach to organisational learning ignores the possibilities of individuals—and above all powerful individuals such as top managers—constructing their own environments (Berger and Luckmann 1966; Weick 1995; Huysman 1996; Finkelstein and Hambrick 1996) and ignores the role that power and politics play in organisations (Lawrence et al. 2005).

Even if *Brown and Duguid* (1991) did not differentiate between more or less powerful individuals, they introduced a social dimension as an internal trigger for learning processes. They argued that organisations learn from the stories organisational members tell each other. Telling stories would help to diagnose a problem, to construct their own account and “*to develop a causal map out of their experience to replace the impoverished directive route*” (Brown and Duguid 1996, p. 65). As well *Nonaka and Takeuchi* who framed organisational learning in terms of knowledge creation which occurs out of an

ongoing process of conversion between tacit and explicit knowledge contributed a central role to teams and the sharing of their mental models (Nonaka and Takeuchi 1995, p. 25 and p. 73). And likewise *Dodgson* (1993) enlarged the list of triggers of organisational learning by arguing that organisational learning at all levels of the organisation can be triggered by leaders and managers who seek adventure or need to make a difference. He criticised that

*“... the role of human agency and individual goals such as the drive for self-actualisation are almost completely ignored in many accounts of organizational adaptability. Organizational learning is stimulated both by environmental changes and internal factors in a complex and iterative manner” (Dodgson 1993, p.387).*

As can be taken from the above discussion, top-level organisational learning can be considered as a response to environmental change but can also be evoked by individual top managers themselves. This leads directly to a further central discussion in the organisational learning literature and research, which follows in the next section.

#### **2.2.2.2 The Top Management as Subjects of Organisational Learning**

Since the beginning of the concept of organisational learning, there has been a very controversial debate about the subjects of organisational learning, i.e. about ‘can organisations learn?’, ‘who learns?’ and ‘what is the difference between individual and organisational learning?’. Furthermore, when doing research on top-level organisational learning it has to be discussed whether there are groups within the organisation which are of particular importance with regard to organisational learning.

The first central question of this debate in the literature is about the capability of organisations to learn in general. Many scholars treat organisational learning at the level of individuals and teams (micro perspective) and position the members of the

organisation, and so individuals, as the primary players in the learning process (e.g., Cangelosi and Dill 1965; March and Olsen 1976; Argyris and Schoen 1978; Duncan and Weiss 1979; Dodgson 1993; Kim 1993; Nonaka and Takeuchi 1995). Only very few scholars (e.g. Jones 1995) consider organisational learning as completely independent of individuals (macro perspective). *Morgan* (1986), a cybernetics theorist, conceived organisations as self-organising systems, and some proponents from artificial intelligence argued that organisations have a sort of collective mind or that the capacity to learn can be embedded in expert systems (Huber 1991). Irrespective of this little, less considerable group of contributors, there is a wide consensus that individuals are the principle and active agents of organisational learning. Although in agreement with the prevailing opinion in organisational learning literature, a further differentiation as regards the importance of selected groups of individuals is certainly required.

This is in accordance with some approaches in organisational learning literature—particularly in strategic leadership literature—which pursued the notion of the primary positioning of learning at individual level even further. They identified certain groups of individuals within the organisation which were considered as having particular importance with regard to the adaptation of the entire organisation.

However, there is disagreement in the literature on precisely which groups of people play a particular role for organisational learning. Thus *Huysman* (1999, p. 65) and *Levitt and March* (1988, p. 333) argued that although organisational learning is influenced by activities of active agents at all levels of the organisation, it is at the same time above all a top-down process. For the same reason, and in order to avoid the trap that organisational learning becomes ‘all things to all people’—*Yeung* introduced the notion of “organisational learning capability” as the word capability would emphasise specific management initiatives and practices and by that what managers actually do (*Yeung et al.* 1999, p. 11). *Argyris and Schön* (1996) proposed a kind of job-sharing by means of the creation of



clusters of individual members of the organisation as agents of learning who yield learning results for the entire organisation. Others in turn highlighted the importance of labour unions (Drinkuth et al. 2001), consultants (Berthoin Antal and Krebsbach-Gnath 2001), boards (Tainio et al. 2001) or groups of all kinds (Schopler 1987; Brooks 1994) who might exert a major influence on decision-making and learning of the entire organisation.

Finally, it is agreed with *Kammel* who emphasised that it depends on the influence of the corresponding groups or clusters of individual members of the organisation if and in how far the learning results will spread out in the entire organisation and become of strategic relevance (Kammel 2000, p. 336). This elitist approach to organisational learning is also supported by *Geißler* 1991, p. 95), who claimed that for the rise of the controllability of an organisation, partially already minimal learning efforts of a few organisational members are sufficient if these members of the organisation hold strategically important posts. This position is reinforced by an abundant stream of literature and research in the field of strategic leadership where scientists examined and found significant associations between executive attributes or succession and organisational performance<sup>5</sup> (see for instance, Hage and Dewar 1973; Gupta and Govindarajan 1984; Virany and Tushman 1986; Murray 1989; Haleblan and Finkelstein 1993; Sadler 2001).

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<sup>5</sup> E.g. *Hage and Dewar* (1973) found that the values held by top management teams affected their organisations' subsequent degree of innovation. *Gupta and Govindarajan* (1984) stated an association between different types of general manager expertise and business performance. *Virany and Tushman* (1986) found that senior managers of better-performing microcomputer firms had significant previous experience in the industry and tended to include the firm's founder. *Murray* (1989) identified from a sample of twenty-six oil companies, that top management teams composed of members of diverse tenures outperformed those with more homogeneous tenures. *Haleblan and Finkelstein* (1993) found in their study of computer and natural gas companies that the size of the top management team was positively associated with company performance.

The limitation on learning efforts of top managers was criticised by another strand in the strategic leadership literature<sup>6</sup> and likewise by proponents of the “involvement discussion” (for further references cf. Miller and Monge 1986; Griffin 1988; Cotton et al. 1988). They argued that by virtue of the enormous complexity of the environment and the organisation and due to limited cognitive capabilities of individuals as well as communication problems excessive demands would be more likely with regard to the mastery of difficult strategic challenges. And even though top managers were considered to play an important role as facilitators of learning processes of the entire organisation, the pure focus on top managers as subjects of organisational learning would neglect the fact that they are not the only ones who learn within the organisation and that there might be other groups of individuals which might be important with regard to the learning of the entire organisation. Despite these points of criticism, we agree with Yukl who came to the following sobering conclusion concerning participative leadership:

*“In summary, after more than forty years of research on participation, we are left with the conclusion that participative leadership sometimes results in higher satisfaction, effort, and performance, and at other times it does not”* (Yukl 1994, p. 161).

And likewise corresponding to Staehle the importance and real spread of participation<sup>7</sup> in practice is “generally overestimated” (Staehle 1994, p. 581).

When following this argument, in accordance with Klimecki (1997), two general comprehensive trends can be identified in organisational learning—and leadership literature concerning the role of the (top) management for organisational learning:

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<sup>6</sup> Population ecologists particularly have argued that organisations and their top managers – are largely inertial, hemmed in by environmental and organisational constraints (Hannan and Freeman 1977). But later work by population ecologists also envisioned a more significant role for top executives in influencing organisational outcomes (e.g. Carrol 1984; Haveman 1993). The most commonly cited evidence of negligible managerial effects is Lieberman and O’Connor’s (1972) study of top executives in large corporations using a sample of 167 companies over a twenty-year period and Salancik and Pfeffer’s study of city mayors (1977). However, both studies have been criticised due to several methodological and analytic problems (e.g. Hambrick and Mason 1984; Romanelli and Tushman 1988).

*First*, the top management as a facilitator<sup>8</sup> (i.e. 'controlling and helping function'). In this strand of literature, an outstanding role as initiators and facilitators of collective learning processes is attributed to the top management. The top management is viewed as responsible for the creation of an environment that fosters learning and minimises barriers to and constraints on learning.

Secondly, the top management as a representative of learning (i.e. 'bearer function')<sup>9</sup>. From this point of view, the management is considered as a 'learning avant-garde' or learning agent who yields learning results for the benefit of the entire organisation. Thereby the learning of this elite represents or—if possible at all—takes the place of the learning of the entire organisation. In doing so, top managers provide an example or model that could provide alignment and orientation for (new) collective learning processes.

Although this justifies paying particular attention to top-level organisational learning, there is so far very sparse empirical work on both roles and a limited understanding of the dynamic interrelationships between the top management as a facilitator and representative of organisational learning. This can e.g. be attributed to methodological problems such as the problem of researchers getting access to top managers (for further details see methodology chapter, e.g. section 3.10.2). Although these roles can presumably be separated from each other for analytic reasons only, the exploration of the interrelationships would contribute to a better understanding of the kind of things the top management does in order to learn and foster learning as well as the outcomes of TLOL. However—as will be shown in the Methodology Chapter—such research places particular

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<sup>7</sup> Besides there is little consensus in the literature concerning the definition of the concept of participation. (see Hollander and Offermann 1990, p. 183).

<sup>8</sup> see also: Berthoin-Antal (2002).

<sup>9</sup> Particularly in the very origins of the organisational learning literature in the US top managers were proposed to be the only ones to learn and to manage and control learning within the organisation.

demands on the research design and has to put a strong emphasis on the top management and its organisational learning context.

### **2.2.2.3 Individual versus Organisational Learning**

Even if after the previous discussion it can be stated that individuals—and among those particularly top managers—play an important role for organisational learning, the question remains what makes the difference between learning of individual top managers and TLOL. This discussion is important in order to better understand starting points and outcomes of TLOL and how they can be captured.

Although most inspiration in the theory of organisational learning emanated from theories of individual learning and several authors tried to connect organisation theory and psychology in order to apply concepts developed for individuals to organisations as well as to discuss the learning of individuals in an organisational context it is agreed with *Berends et al.* (2003) that...

*“Theories of individual learning are relevant, for individuals play a role in organizational learning, but they are unable to capture the social nature of organizational learning.”* (p. 7)

For this reason, theories on individual learning cannot explain the differences between individual and organisational learning and so will not be discussed here in further detail<sup>10</sup>.

This corresponds to the predominant view in organisational learning literature where authors tend to agree that organisational learning is more than a simple aggregation and more than simply the sum of individual learning (Argyris and Schoen 1978; Duncan and Weiss 1979; Fiol and Lyles 1985; Crossan et al. 1999). The pure focus on the individuals of an organisation and herewith the reduction of organisational learning to individual

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<sup>10</sup> An overview about the heterogenous learning literature and research is provided by Bower et al. (1983); Wippich (1984); Lefrancois (1994); Edelmann (1996).

learning risks failing to see or to neglect deterministic forces on learning and by that important immanent factors of the organisation which exert a lasting influence on the agents of learning, their behaviour and actions.

Corresponding to *Fiol and Lyles (1985)*, at least an implicit consensus has been reached in the literature that organisational learning is distinct from individual learning. Current literature provides a large variety of answers to the question how organisational learning relates to individual learning even if not specifically for the target group top management. So is one position followed in the literature that the results of individual learning have to be embodied, embedded or incorporated in the organisational memory (see *Argyris and Schoen 1978; Hedberg 1981; Kim 1993*). *Hedberg* as a proponent of that view put it this way:

*“Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members’ learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations’ memories preserve certain behaviours, mental maps, norms, and values over time.”* (Hedberg 1981, p. 6).

Others argue that an organisation has learned if new knowledge has been acquired and is shared (see *Duncan and Weiss 1979; Shrivastava 1983; Huber 1991*). *Levitt and March (1988)* put a particular emphasis on routines as a result of organisational learning processes<sup>11</sup>. They argued that learning by individuals and groups becomes organisational when inferences drawn from their experiences are encoded into routines (e.g. rules, standard operating procedures, policies, structures). Likewise the March school of research (*March and Olsen 1976*) as well as *Kieser et al. (2001)* and *Crossan et al. (1999)* considered organisational features as vehicles of organisational learning and

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<sup>11</sup> In accordance with *Blackler (1993)* routines are „encoded knowledge“.

suggested that individual learning should be institutionalised and embedded in systems, structures, strategy, routines and practices of the organisation. Other authors considered the decision-making processes (Cangelosi and Dill 1965), organisational theories-in-use<sup>12</sup> (Argyris and Schoen 1978), culture, (Cook and Yanow 1993; Schein 1993), or other aspects as important factors which exert a positive or negative influence on the learning process of the agents of learning. In that connection, particular importance was attached to the notion of interaction—not only with the formal but as well with the informal organisation (e.g. “networks” Kaplan (1984), “communities-of-practice” (Lave and Wenger 1991; Brown and Duguid 1991) and its sphere which makes that organisational learning is not restricted to legal bodies or formal structures and processes of the organisation.

All things considered it can be stated that a large number of authors and researchers suggest that one or more extra conditions have to be fulfilled for individual learning to turn into organisational learning. Others, such as *Antonacopoulou* (2006) emphasise that the relationship between individual and organisational learning is much more complex and not reciprocal. However, the corresponding discussion in the literature leaves the researcher with a considerable degree of confusion about the conditions which have to be fulfilled as well as about common points and differences between individual and organisational learning (see Friedlander 1983; Kim 1993; Antonacopoulou 1998; Friedman 2001). Following *Richter* (1998) as a proponent of the executive learning literature, there is little or no in-depth dedicated research in this area; there is also a very poor understanding of the characteristics of the inter-relationship between the learning of individual top managers and top-level organisational learning. A potential way out of this situation is discussed in the following section.

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<sup>12</sup> As to Argyris and Schoen (1978) organisational learning takes place when the members of the organisation critically reflect and finally change the applied “organisational theories-in-use”. This will be done when the members of the organisation realise that the results expected and desired will not occur. The revision and correction of existing “theories in use” is defined as a “learning loop”.

#### 2.2.2.4 A Dual Approach to Organisational Learning at Top Management Level

Meanwhile a very promising suggestion towards a better understanding of the concept of TLOL comes from *Berends* who inspired by *Giddens'* (1976, 1979, 1984) structuration theory developed a more comprehensive account of the social phenomenon of organisational learning. Based on that the dichotomy between individual learning and organisational learning and the consideration of individuals and organisations as separated subjects of learning is abandoned. It is replaced by a dual point of view which differentiates between the agents of learning (i.e. here the top management) and organisational references only for analytic reasons. For *Berends*, individuals and the organisation are not two separate concepts or constructs, but are simply two ways of considering social action. There is a so-called 'duality of structures' so that on one side it is composed of powerful actors who undertake actions and interact. At the same time, it is composed of resources (Barney 1991), dynamic capabilities (Teece et al. 1997, Wang and Ahmed 2005, Prieto and Easterby-Smith 2006, Helfat et al. 2007, Teece 2007) which represent an extension of the resource-based view (Easterby-Smith and Prieto 2008), rules and social relationships that are produced and reproduced in social interaction. The latter comprises learning experiences of the past and provide a starting point for new organisational learning. These resources that are embodied in structures which influence what *Cohen and Levinthal* (1989, 1990, 1994) and *Van den Bosch et al.* (1999) or *Jansen et al.* (2005) called 'absorptive capacity' could likewise foster or limit learning of the learning agents. However, they do not determine organisational learning processes which means that certain conditions do not necessarily result in certain learning results (i.e. the so-called "caveat actor"). The learning process is rather influenced—as likewise proposed by *Finkelstein and Hambrick* (1996)—by the agents of learning, by their motivation, selective perception, their capabilities and herewith by their construed reality (compare *Berger and Luckmann* 1966). This means that the learning agents have a certain

discretion to decide which parts of their learning environment and structures they consider as important and how they intend to respond to that (Whittington 1990, 1992).

Hence, it can be concluded that following *Berends et al.* (2003) learning processes are triggered by the top management as agents of learning and result in structures. These structures in turn have an impact on the agents of organisational learning and their learning so that learning processes are never completed and highly interrelated. Structures<sup>13</sup> resulting from learning —e.g. organisational structures and routines, communities, decision-making processes ... etc., continue to exist—independent of single individual learning agents. This is why *Kim* concludes that organisations can learn independent of a specific individual, but not independent of all individuals (Kim 1993, p.37). This means that changes of the structures are possible if—e.g. due to fluctuation or personnel turnover—the majority of learning agents have the will and sufficient resources to change them.

This dual perspective on top-level organisational learning is likewise supported by *Klimecki and Gmür* (1997) who introduced the point that the top management and the organisation form an inevitable ‘learning community’ which can mutually support or hinder each other. Analogous to *Bateson* (1972, 1983) he considers interactions between different learning levels as a fundamental element of organisational learning. However, again there is very little or no dedicated research which makes use of a systems approach to organisational learning (see *Bateson* 1972, 1983)— even less with regard to the top management. So claimed *Klimecki and Gmür* (1997) that in the organisational learning literature and research *Bateson’s* view of a learning unit as an active “*unit-in-its-environment*” (*Bateson* 1972, 1983) has scarcely been applied<sup>14</sup>. And likewise *Hedberg*

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<sup>13</sup> It has to be noted that this definition of structures is different from *Giddens’* definition (*Giddens* 1984).

<sup>14</sup> Already *Cangelosi and Dill* (*Cangelosi and Dill* 1965) described organisational learning as a complex, multi-dimensional process consisting of a series of interactions between adaptation at the individual, or subgroup level and the adaptation at organisational level.



confirmed that *“the interplay between individual, group and organisational levels has been poorly described in the literature, and research into the interactions between learning individuals and learning organizations is badly needed”* (Hedberg 1981, p.7).

Instead, it can be observed that the literature concentrates predominantly on the learning unit ‘organisation’ (annotation: it is meant here the organisation as a whole) which is mostly described as an open system and—at least implicitly—defined in a formal way or in legal terms. In doing so it is neglected—as presented above—that organisational learning has rather to be understood as the learning of different social systems<sup>15</sup> which make part of a larger organisation and who continuously influence each other. Furthermore it neglects that some social systems, such as the top management, might be of particular importance with regard to the learning of the organisation, of which it is a constituent part. Consequently it can be assumed that a contribution to a better understanding of organisational learning at top management level could be made by applying a methodology for this study (see Methodology Chapter) which puts a strong emphasis on both: the top management and its organisational learning context. This could be achieved through the simultaneous consideration of the evolution of the organisation (here: DT group) and the ‘sub-system’ top management. In that connection parallel lines of developments as regards the structuring of the company and the top management could potentially be observed which can be seen as an indicator for the interactions between different levels of learning.

### **2.2.3 Definition of the Concept of Top-Level Organisational Learning**

It was stated at the beginning of this section that the large variety of definitions of the concept of organisational learning results from different opinions and assumptions about

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<sup>15</sup> These social systems are „sub-systems“ or „sub-organisations“ of the entire organisation which are located at different levels of the organisation.

the subjects and the nature of organisational learning. Derived from the reviewed literature and research and with reference to *Berends et al.* (2003, p. 12), the following definition of TLOL will be applied for the purpose of this study:

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*Top-level organisational learning is the process of changing the range of the top management's (potential) behaviour based on the development of its knowledge.*

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Figure 1 : Definition of Top-Level Organisational Learning (TLOL) for this study

This definition of TLOL assumes furthermore that:

- Organisations can be regarded as social systems in which a dominant coalition emerges and the learning by this elite rules the organisation.
- Learning and power are perceived as being closely related which means that the knowledge of the most powerful actors of the organisation which are above all the top managers has the greatest chance of determining organisational decisions and changes. Consequently the learning of the social system top management—even if they are not viewed as the only ones to learn—is regarded as crucial with regard to the adaptation of the entire organisation to change as they have sufficient power to impose their will and ideas on the entire organisation.
- Learning efforts of (top) managers cannot be isolated from the learning context and the learning of the rest of the organisation. (Klimecki 1997; Kammel 2000, p. 337).
- Organisational learning is different from individual learning although the primary agents of organisational learning are individuals. 'Structures' composed of actors and resources provide starting point and result of organisational learning.

If this approach is adapted here several implications concerning the design of this study are resulting from this definition of the concept of organisational learning. These will be considered and discussed in greater detail within the scope of the methodology chapter.

### **2.3 The Learning Organisation – Definition and Conceptual Differentiation**

In using the term top-level organisational learning which is the key concept of this thesis, almost by definition that construct is about some kind of collective learning. For the sake of completeness a further influential school that deals with collective learning has to be mentioned here which has attracted in these times of accelerated change also the attention of many top managers: It is the learning organisation discussion (Garret 1987; Senge 1990; Garvin 1993; Pedler 1994).

Corresponding to *Tsang* there is a simple relationship between the twin ideas of organisational learning and the learning organisation:

*“... a learning organization is one which is good at organizational learning”*  
(*Tsang* 1997, p. 75)<sup>16</sup>.

This means that a learning organisation can be understood as an outcome of organisational learning and so also of TLOL.

Just as for the of concept organisational learning, there are numerous definitions of the concept ‘learning organisation’ in the relevant literature (cf. Garret 1990; Senge 1990; Quinn Mills and Friesen 1992; Pedler 1994; Kilman 1996), which however in general focus on companies or firms instead of selected groups of individuals. Probably the most cited definitions are those of *Pedler et al.* and *Senge*:

*“The learning company is an organization which facilitates the learning of all of its members and continuously transforms itself”* (*Pedler et al.* 1991, p. 1).

Senge described the learning organisation as an organisation

*“... where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together”* (Senge 1990, p.31).

Corresponding to *Kammel* (2000, pp. 382) despite the variety of definitions some further common points can be stated in the learning organisation literature as the prescriptive branch of the organisational learning literature:

- Learning organisations represent a practice-related elaborated conceptual framework. This is probably due to the fact that the majority of authors in this field are consultants and practitioners which might explain the strong practical interest of many top managers in the concept (see also Harvey and Denton 1999).
- All organisations and their sub-organisations learn at different stages of their development with different intensity and velocity. This raises the question how organisational learning can be aligned in the desired direction and how the success of an organisation can be developed continuously. Particular importance is attributed in this regard to the structural component of the organisation.
- A central parameter for the establishment of a learning organisation are formal structures<sup>17</sup> which are considered as a lever and tool for the targeted steering and controlling of behaviour as well as learning. The formal organisation determines the individual spectrum of behaviour of its members by presetting demands, constraints and choices. In doing so it fosters or inhibits learning. Managers and especially those

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<sup>16</sup> see also, Lundberg (1995, p. 10).

<sup>17</sup> Formal structures represent a system of rules which arranges activities and processes of the organisation as well as rights and duties of its members and so provides a lasting framework for the members of the organisation.

at the very top play a particular role in this regard and are viewed as facilitators of organisational learning (similar: the top management as facilitators; Klimecki 1997). They make constitutive organisational decisions which bring about that job -and role requirements and herewith requirements concerning the behaviour of the members of the organisation are reformulated. Each reconfiguration of the structuring of an organisation has implications concerning the learning of the members of the organisation.

- Learning organisations are open systems which are in permanent interaction with its environment. Within a learning organisation learning takes place at different levels of the organisation (i.e. individuals, teams, organisation).
- In learning organisations change is the normal case.

As mentioned earlier, the body of literature on the learning organisation makes part of the prescriptive branch of publications in this field which is especially adressed to practitioners (e.g., Lewin 1947; de Geus 1988; Stata 1989; Senge 1990; Judson 1991; Kim 1993; Kotter 1995; Galpin 1996). This literature—which aims at improving organisational performance by means of showing how organisations *should* learn or postulating enablers for the improvement of learning—is based primarily on practical experience and knowledge of consultants instead of theoretical and empirical research. Together with the preference of top managers to work with consultants (Richter 1998) this might explain the broad interest of top managers in the concept.

In spite of that, the literature on the learning organisation will not be reviewed here as simply referring to what should be done in order to foster organisational learning does not

produce veridical knowledge about the learning mechanisms as such.<sup>18</sup> Beyond that point the proponents of the learning organisation literature tend too much to simplify, i.e. it is assumed that generalisations—even if developed on a very abstract level—could be applied to all organisations and learning would always have a positive impact on organisational performance (see for instance, Whittington 1993, p. 128)<sup>19</sup>.

However, an interesting point in the learning organisation literature is that it puts again an emphasis on the meaning of structures for organisational learning to take place. This suggests again to link the concept of top-level organisational learning with the structural dimension and to apply a corresponding methodology for this study.

## **2.4 Specific Characteristics of Executive Work and Learning**

### **2.4.1 Introduction**

Having clarified the conceptual issues in the previous sections and introduced a dual approach to TLOL (see section 2.2.2.4) in order to try to overcome the limited understanding of the interrelationships between the learning of individual top managers and top-level organisational learning (see section 2.2.2.3), the following section will concentrate on TLOL from the perspective of top managers as powerful actors and learners.

One could say that executives might not be significantly different from anyone else in terms of their need and capacity to learn. However, due to the positional status, power, and authority, the specific features and nature of executive work and learning merit particular attention (similar: Richter 1998). Therefore the corresponding literature and research will be reviewed in the now following section.

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<sup>18</sup> Similar to Argyris and Schön (1996).

<sup>19</sup> For these reasons *Grieves* (2008) proposes abandoning the concept of the learning organisation.

## 2.4.2 The Nature of Executive Work

Research into the nature of (top) managers' learning (Burgoyne and Stuart 1976; Stuart 1984; Burgoyne and Hodgson 1983; Davies and Easterby-Smith 1984; Mumford 1986)—in particular whether managers learn “on-the-job” or “off-the-job”—has shown, in accordance with *Antonacopoulou* (Antonacopoulou 2002, p. 5), “...that the bulk of managers' learning takes place in the work place, as a result of their work and role activities” (similar: Casey 1980; Hague 1979; Rewans 1977). Likewise a series of other authors argue that managerial learning cannot be separated from current practical experience in the day-to-day business (Kammel 2000; Braddick 1988) and that “...managers develop primarily through confrontations with novel situations and problems where their existing repertoire of behaviours are inadequate and where they have to develop new ways of dealing with these situations” (Davies and Easterby-Smith 1984, p. 180). This means that the top manager's learning is an integral part of managerial work (see also: Kammel 2000, p. 318), which therefore requires a more in-depth discussion.

There is a large body of literature and research on managerial behaviour and managerial activity which consists particularly in the US, France and UK of a variety of studies on work habits of managers<sup>20</sup>. These contribute to a better understanding of under what circumstances and which conditions top management's learning has to take place. The most influential work done in this field is the studies conducted by *Barnard* (1938), *Mintzberg* (1973) and *Kotter* (1982) who described the core executive functions. A fundamental finding of *Mintzberg's* research was that the typical managerial work environment has been depicted as consisting of very fragmented activities that occur at an unrelenting pace (Mintzberg 1973) and as a stream of disjointed activities and interruptions throughout the workday (compare also: Carlson 1951; Stewart 1967;

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<sup>20</sup> For a review and critical analysis of the literature and research cf. Hales 1986; Lauvergeon and Delpuech 1986; Stewart 1989; Martinko and Gardner 1990; Schirmer 1991.

Kammel 2000, p. 318). This was most recently confirmed again by a corresponding French study on top managers (Cahen 2008). Senior management jobs would be open-ended and top managers would become conditioned by workload. Scheduled meetings, business trips, telephone interruptions, drop-in visitors and urgent operative requirements would eat up top managerial time, mainly at the expense of time for creativity, reflection or in-depth analysis as *Cahen* (2008) identified in his recent empirical study. *Mintzberg* (1973) drew the conclusion that managers control little of what they do and so are somehow guided by their working environment. This leads in turn to the suggestion that top managers likewise control little of what they learn, that they even might not always be aware of what they are learning and that also their learning is somehow guided by their working environment.

This would also explain why the incremental “learning-by-doing” and “on-the-job” approaches are criticised in many ways in the literature. *Baldwin and Lawson* for instance point out that “... simply facing real problems is not sufficient for development to occur. Action must be accompanied by reflection on action... “. (Baldwin and Lawson 1995, p. 513). He therefore claims that in order to be effective ‘learning-by-doing’ presupposes a learning intention, a planned learning process as well as some competencies. *Schreyögg* (1984) emphasises that learning-by-doing tends to be too reactive, is too much past-oriented and promotes familiar but sometimes obsolete behaviour. For the latter reason *Ansoff* (1991) and *Hamel and Prahalad* (1996) even reject incremental approaches and draw the conclusion that learning-by-doing is no appropriate approach when substantial and fast change or adaptation has to occur.

### **2.4.3 Specific Features of Executive Learning**

Current literature and research confirms that executive work and executive learning have a series of things in common. *Richter* (1999) found in her study, which involved seven executives working at six different companies located in three countries “... that executive



*learning is accomplished in a solitary, piecemeal way, and that group-based sensemaking processes are even more unusual than one-to-one-processes” (Richter 1999).*

*Richter’s (1999) findings mirror the point that executive learning is strongly influenced by the executive’s working environment, which leaves little room for reflection on action. The findings also suggest that communities-of-practice (see: Brown and Duguid 1991) in the classical sense (i.e. informal communities) and also one-to-one informal relationships play a secondary role for executive learning. Richter found in her empirical study on individual and organisational learning at the executive level that top managers tended to be extremely cautious with regard to interactions with others. She identified three implicitly held rules why communities-of-practice at top level were poor and why top managers rather concentrated on ‘formal communities-of-practice’, such as management meetings, task forces etc. <sup>21</sup>:*

*First, deeply held rules about power and influence would not allow top managers to talk about uncertainties or knowledge gaps and make top managers feel that participating in anything other than “formal communities-of-practice” carries risks for personal reputation. Secondly, it would get increasingly difficult as one gets promoted to a higher hierarchical level to maintain long-term trusting relationships. And finally, due to competitive boundaries, sharing conversations about challenging situations with colleagues outside the organisation—particularly with those within the same industry would be considered as a high risk and therefore as taboo.*

*Richter’s findings flatly contradict the work of Ghoshal et al. (Ghoshal et al. 1994) and Kaplan (1984) who did, however, not predominantly focus on top managers, but stated that informal management networks would make an important contribution to the coordination of the company and help to disseminate information and to create a shared*

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<sup>21</sup> A series of authors, e.g. Wenger (1998), would not consider task-forces or other formal communities as ‘communities-of-practice’.

meaning system. So *Richter's* work suggests that there might be a difference here between top managers and other managers. Despite the small scale of *Richter's* study, that can be criticised but is no rare phenomenon in the field<sup>22</sup>, *Richter's* study suggests that communities-of-practice in the classical sense—i.e. as informal communities and networks emerging from the social context and comprising an explicit as well as implicit dimension—are no appropriate method for TLOL. This leads to the point that research on TLOL should mainly concentrate on formal communities.

The lack of 'informal' communities-of-practice bears certain risks, but opportunities as well (see: Kammel 2000, p. 377). On the one hand, the exploitation of implicit or tacit managerial knowledge<sup>23</sup> which is, corresponding to *Becker* (1970), in most cases held by managers with a long tenure and professional experience within the organisation, is more difficult. Newcomers risk not having an overview of the overall situation and interactions; they risk getting lost in complexity and re-inventing the wheel. On the other hand, not having this in-depth knowledge about the organisation can, according to *Sternberg and Lubart* (1993), also be an advantage when fundamental change has to occur (see also section 2.5 on the need for unlearning).

Apart from that, review of the relevant literature reveals that "*little or no in-depth research has been dedicated to understanding the day-to-day dimensions of executive learning...*" (*Richter* 1998, p. 300). In his reviews of management development literature, *Storey* (1989, 1990) came to similar conclusions when stating that the vast bulk of this literature is related to the means question, i.e. to the instruments of management development and learning such as recruitment, training, coaching, mentoring, teamwork, secondments and so on. At the same time he found that surprisingly little is known about under what

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<sup>22</sup> *Mintzberg's* study on managerial work (*Mintzberg* 1973) based on the direct observation of five CEOs, the study of behavior and work of top level managers done by *Kotter* (1982) comprised 15 top managers.

<sup>23</sup> For the definition of implicit or tacit knowledge it is referred to e.g. *Polanyi* (1967); *Nonaka and Takeuchi* (1995).

individual and organisational circumstances managers acquire the competencies to be successful.

However, some critical success factors were defined in the current literature as regards the learning of top managers. Thus, all existing research has established that individuals cannot be forced to learn against their will (see Mumford 1971; Honey and Mumford 1982; Sutcliffe 1988). According to *Rosenstiel* (1995), this is particularly valid for (top) managers, who in the sense of learning do not represent a homogeneous group of people. He pointed out that the top manager's formal education, professional socialisation as well as the evolution of societal values would bring about that managers think in an independent way, critically question objectives and guidelines and actively seek information. *Rosenstiel* continued by stating that managers are therefore not ready from the outset to follow or hold a certain organisational ideology or opinion. They would also have their own individual convictions and objectives. This is why, according to *Humble* (1973), *Lloyd* (1990) and *Stewart and Stewart*<sup>24</sup> (1981), a real learning process can only be triggered and the learning process can only be effective when managers themselves recognise a learning need and decide to engage in this process.

This is in accordance with the general tendency in the learning theory and research which moved from notions of conditioning and indoctrination towards autonomy and self-direction, i.e. the individual is perceived to have the "power" to choose whether or not to learn (for further references see: *Antonacopoulou* 2002).

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<sup>24</sup> According to *Stewart and Stewart* (1981) there are four preconditions for managerial learning to take place: Firstly, the learner must see a connection between the learning task and the potential consequences. Secondly, there must be a feedback on performance if it is to improve. Thirdly, the opportunity to practice is very important, and fourthly the provision of help where people's analytical capabilities are impoverished is important. However, *Stewart and Stewart* did not explain how these preconditions for managerial learning could be embedded in the day-to-day dimension of executive learning and how managerial learning could be channelled.

*Hoeksema et al.* (1997) gave proof within the framework of their empirical study with 127 managers working in three different organisations that the pursuit of a ‘deep learning strategy’, i.e. the internalisation of the learning need and the understanding of the meaning of the learning challenge is key with regard to the effectiveness of the learning process<sup>25</sup>. With regard to this study—and assuming that top managers are somehow guided in their learning by their working environment (see above)—this suggests that top managers have to explicitly or at least implicitly agree with that guidance if they want to learn in an effective way.

A further interesting point on executive learning is raised by *Mumford* (1988). He argued that once the decision has been made to engage in a strategic process or project learning becomes a secondary purpose. He explained:

*“A manager’s willingness to learn is most often specific rather than general, related to a performance requirement rather than to a detached interest in a piece of knowledge. That willingness is increased or diminished by various influences, the most identifiable being those centred on the job itself and on people important to the manager”* (Mumford 1988, p. 192).

This means, in accordance with *Baldwin and Lawson* (1995), that from the perspective of the manager there are no “learning” problems per se (likewise see: Antonacopoulou 1999; Richter 1999). The manager’s primary concern would be to manage a business problem with success. Consequently, once he has agreed to engage in this problem-solving process he has likewise agreed to learn and might not even want to be perceived as a learner:

*“... managers want to be effective, but they do not necessarily want to be learners”* (Baldwin and Lawson 1995, p. 513).

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<sup>25</sup> He found that this is at the same time a precondition for managerial i.e. career success.

For the researcher in the field of executive learning, this means that he/she has to investigate learning within the scope of the resolution of business problems which places particular demands on the research methodology and highlights again the need to put a strong emphasis on the top management's learning context.

## **2.5 The Need for Unlearning**

Apart from the manager's agreement with the learning needs and objectives a further basic precondition for TLOL to take place that is identified in the literature, is "unlearning" (Hedberg 1981; Hamel and Prahalad 1994, p. 65) or organisational forgetting (Blackler et al. 1999). Thus argued *Hedberg* (1981):

*"Knowledge grows, and simultaneously it becomes obsolete as reality changes. Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge. The discarding activity—unlearning—is as important a part of understanding as is adding new knowledge. In fact, it seems as if slow unlearning is a crucial weakness of many organizations"* (Hedberg 1981, p. 3).

The literature shows that the issue of unlearning is a particularly crucial point for organisations with a long history and tradition. It is even more important for organisations such as former public authorities in Germany, which employ civil servants that for legal reasons cannot not be made redundant or sanctioned. For,...

*"... knowledge can be a double-edged sword. Knowledge can limit one's perspective and ability to have fresh ideas.... At a certain point, the costs of additional knowledge may outweigh the benefits"* (Sternberg and Lubart 1993, p.9).

Top-level organisational learning is therefore not only about new learning, but can also require the deployment of corresponding methods to achieve unlearning.

*Carley* found that in general (see: *Carley 1996*) in turbulent environments, studies have revealed that executive turnover is necessary if the organisation is to adapt to the changing environment (see also: *Pettigrew 1985a*). In this particular case, turnover enhances competency "... as old executives have often no training on the new task and hence may slow the rate of adaptation over hiring new executives trained in that task" (*Carley 1996*, p. 256). Likewise *Hedberg* suggests that dismissals can be necessary when unlearning (*Hedberg 1981*) does not occur or when strong cohesive structures lead to blind spots and distortions of reality. Similarly *Whittington* (1993, p. 122) and *Bleicher* (1991, p. 762) emphasise that in these situations only the replacement of managers in key positions by people coming from outside the organisation permit avoiding the strategic persistence that results from dysfunctional, past-oriented internalisations of insiders, to initiate strategic change or to achieve turnaround after a crisis. Moreover, according to *Kammell* (2000), lacking organisational socialisation and new configurations of power provide the unbiased external recruits—compared to internal candidates—with larger room for manoeuvre with regard to necessary changes of organisational structures and procedures. Thus, external newcomers with experiences in multiple contexts can open new perspectives for the organisation and even break up very cohesive organisational structures, which tend to lead to blind spots with regard to reality and the challenges the company has to face (*Kammell 2000*, p. 311).

However, according to *Schein* (1993, p. 87) unlearning is difficult. Often emotional barriers would stand in the way especially when there is what *Cavanaugh and Noe* (1999) or other authors (*Morrison and Robinson 1997*; *Antonacopoulou 2002*; or *Storey et al. 1997*) called a 'break of the psychological contract'. Furthermore, changing old behaviour can be difficult when the way a certain problem was solved previously is properly engraved in the mental maps of the members of the organisation. This is why new

cognitive perspectives and new ways of thinking can be an advantage when fundamental change has to occur.

## **2.6 Methods and Styles of Organisational Learning at Top Management Level**

### **2.6.1 Introduction**

Having reviewed the literature on TLOL from the perspective of top managers as powerful actors and learners, the following sections take a resources perspective in order to learn more about methods for TLOL, or what *Yeung et al.* (1999) called organisational learning styles, or *Shrivastava* (1983) 'principle learning systems' by which learning of the top management is perpetuated and institutionalised<sup>26</sup>.

Others have tried to do so before. *Shani and Docherty* (2003) for instance described in their study how e.g. a telecommunications company<sup>27</sup> struggled with its transformation from a public utility to a privately owned company and what was done to facilitate learning at the individual, team and organisational levels. However, it does not come from his study, which puts a strong emphasis on HR-related tools (e.g. coaching, competence models, trainings camps etc.), why certain learning tools or activities were applied in this period of massive change, if and if yes, what has been learnt and why it has been finally evaluated as a success. The mere description of the deployed learning tools would therefore not only go far beyond the scope of this study, but end up again in the aforementioned means-discussion (compare: Storey 1989; Storey 1990). Instead of detailed tools as such, the interest of this study rather lies on an enhanced understanding of the linkages between the top management, their learning environment and the choices

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<sup>26</sup> Corresponding to *Shrivastava* the task of organisational learning systems is to objectify subjective knowledge and to integrate it into the organisational knowledge base. Therefore, she considers the acquisition, communication and interpretation of decision-relevant knowledge as very relevant (*Shrivastava* 1983).

<sup>27</sup> *Shani's* study (*Shani and Docherty* 2003) presents 6 successful companies in different industries and national settings.

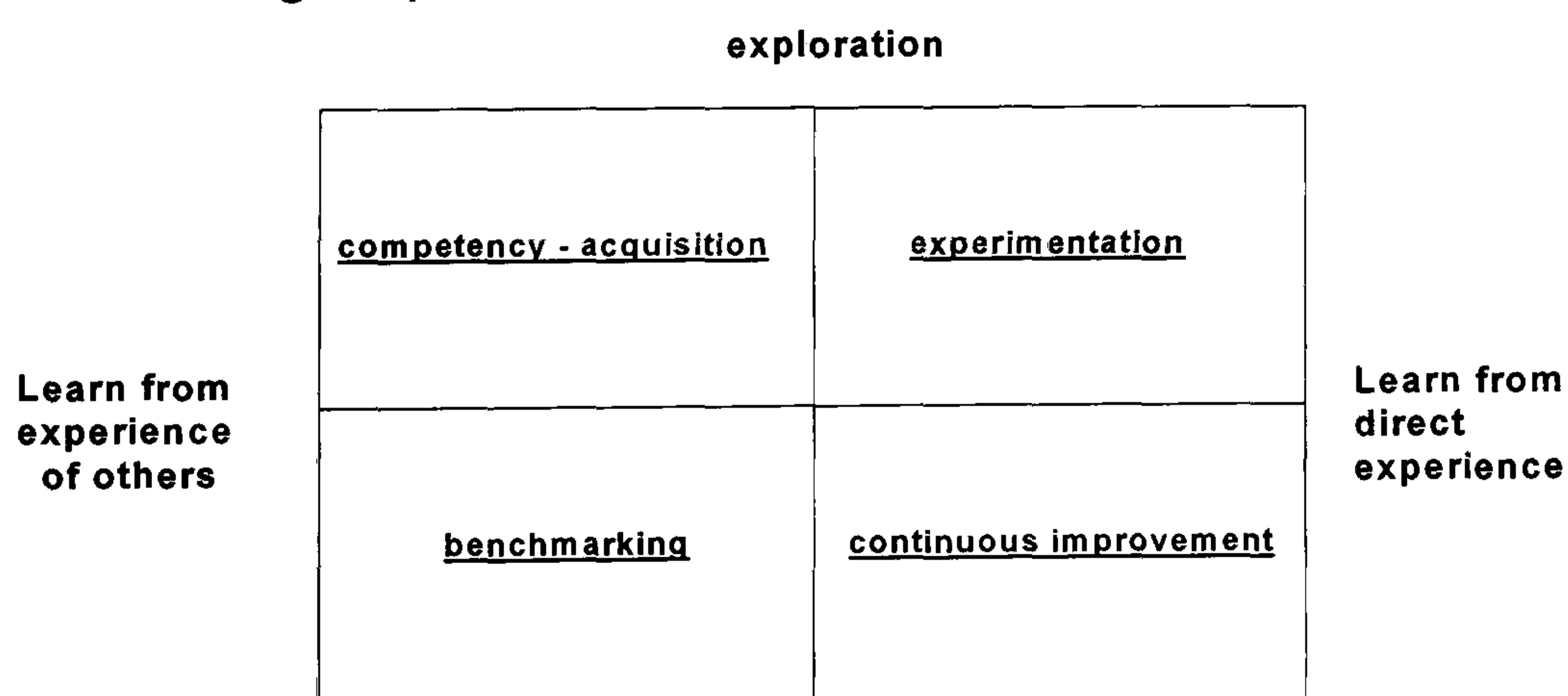
made around methods for TLOL and a better understanding of the deployed methods and outcomes of top-level organisational learning.

In that connection, it must also be mentioned that the intention here is not to investigate the organisational learning process as such. As *Kammel* explains, the concepts that are subsumed as learning are simply too complex, the underlying learning theories are partly incompatible and only able to explain singular aspects of learning (Kammel 2000, p. 507).

### 2.6.2 Organisational Learning Styles at Management Level

As there is, as elaborated earlier, little dedicated research on executive learning (see Richter 1998), it might be no surprise that there is also little empirical work on methods and organisational learning styles at top management level. With reference to *Hoeksema et al.* (1997), learning styles are defined as different combinations of methods.

However, *Yeung et al.* (1999, p. 34 ff.) carried out a comprehensive empirical study<sup>28</sup> with 1,500 managers—though most of them were middle managers—in this area. He found that just as individuals learn in different ways, there are different styles or types of organisational learning (see figure below). Moreover he found that the choice of ‘the right types of learning’ depends on contextual considerations.



Source: (Yeung et al. 1999, p. 36)

Figure 2 : Typology of Organisational Learning Styles

<sup>28</sup> The study comprised over 1,500 managers from 460 businesses in 411 companies and from more than 40 countries, mostly middle managers with a tenure > 16 years whereby the majority of them came from larger companies in mature businesses.



*Yeung et al.* (1999), whose learning styles go back to two basic sources of learning: direct experience and experience of others and—referring to the work of *March* (1991) to two basic purposes of organisational learning: the exploration of new, and/or the exploitation of existing capabilities, differentiated between four learning styles (see figure above). *Yeung et al.* identified a certain “ranking” with regard to the effectiveness of these four learning styles in certain contexts (*Yeung et al.* 1999, p.40) and found that in turbulent environments ‘controlled experimentation’ with new strategies, processes, structures etc. revealed as being way ahead the most effective learning style with regard to the improvement of business performance. Primary sources of learning are the members and customers of the organisation.

As a further, even if slightly less effective way of learning, *Yeung et al.* (1999) identified competency acquisition where organisational learning occurs by buying competency through recruitment or acquisitions, training or by borrowing competencies e.g. from universities, consulting firms.

Benchmarking<sup>29</sup> didn’t significantly correlate with any performance indicators, and continuous improvement<sup>30</sup> proved itself weak in such an environment. So suggests *Yeung et al.’s* (1999) model that targeted job assignments and job rotation are for instance no appropriate method for TLOL as they are based upon learning from direct experience and are related to existing resources and capabilities (see continuous improvement). This squares well with *Dalton* (1989) who found that the particular problem in planned ‘on-the-job’ assignments lies in the point that it is aligned to stability instead of change. Change would bring about that simply other, not controllable and sometimes even ‘dangerous’ things would be learned compared to what was planned at the beginning of the job rotation.

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<sup>29</sup> Learning occurs by “... *discovering how others operate and then trying to adopt and adapt this knowledge in their own organisation*” (*Yeung et al.* 1999, p. 38). Learning comes from other organisations who have demonstrated excellent performance in the past.

<sup>30</sup> Learning occurs “... *by constantly improving on what has been done before*” (*Yeung et al.* 1999, p. 38). Often a high degree of involvement is emphasised (such as through quality control circles).

This suggests that risk-averse, past-oriented and incremental types of learning (i.e. benchmarking plus continuous improvement), that lead only to marginal changes of existing practices are not appropriate and sufficient, if fundamental and significant change and adaptation of the top management and the organisation has to occur. Or to put it another way: Only radical (i.e. experimentation plus competency acquisition) organisational learning styles and corresponding methods for TLOL can lead to the desired learning results.

This limits the range of potential styles and methods for TLOL that can be used in rapidly changing environments, although it remains to be empirically verified whether the results of this promising study can unrestrictedly be applied for top managers. The two potentially most relevant organisational learning styles, namely learning by “*controlled experimentation*” (Yeung et al. 1999, p. 37) as well as ‘*competency acquisition*’ and corresponding methods for TLOL will now be further investigated in the following sections.

### **2.6.3 Controlled Experimentation with Structures and Strategies**

#### **2.6.3.1 Structures and Top-Level Organisational Learning**

In the previous section “controlled experimentation”—among other things with structures and processes—was identified as an effective organisational learning style at top management level (Yeung et al. 1999).

The important role of structures and the structuring of the organisation for organisational learning is supported by numerous authors (e.g. *Dodgson* 1993<sup>31</sup>; *DiBella* et al. 1996) in the organisational learning literature who argue, like *Friedman et al.* (2001), that “... *structures represent the relatively tangible ‘hardware’ of organisational learning*”

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<sup>31</sup> *Dodgson* defined learning organisations as firms that purposefully adopt structures and strategies to encourage learning (*Dodgson* 1993).

(Friedman et al. 2001, p. 760). Likewise *Kammel* (2000, p. 389) confirmed that structures stimulate, control and document TLOL and that executive action and learning were directly and inseparably linked with each other. He points out that processes of strategic or organisational change and learning are parallel processes that are strongly interrelated and continuously influence and control each other (similar: Fischer and Röben 2002).

In principle, the structure of an organisation which *Mabey et al.* (2001) describe as the pattern of relationships between roles in an organisation and its different parts, consist of a hard, formal and a soft, informal component (see: Wang and Ahmed 2002). Whereas formal descriptions are abstracted from actual practice, neglect the implicit or tacit dimension<sup>32</sup> and so inevitably and intentionally omit the details, informal structures such as communities-of-practice (Lave and Wenger 1991; Brown and Duguid 1991; Wenger 1998; Wenger and Snyder 2000) refer to cross-functional, interpersonal, and inter-organisational interaction that is often not explicitly demonstrated in the organisational chart, formal procedures or job descriptions. But, as already elaborated earlier in section 2.4.3, *Richter's* (1999) study found that communities-of-practice, which by definition are informal, emerging from the social context and serve as a platform for sharing explicit and implicit knowledge inherent in the practice<sup>33</sup>, have a limited impact on TLOL. Although some methodological concerns have to be raised<sup>34</sup>, her study, which is one of the rare studies on the relationship between executive learning and organisational learning at top management level, shows that in times of rapid change managerial work is restricted to 'functionally or formally established' communities<sup>35</sup> (e.g. management teams, task forces, steering committees, project teams, ... etc.).

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<sup>32</sup> *Spender* (1996) argues in this connection that managerial work also has a tacit dimension.

<sup>33</sup> Traditionally studies in the field of communities-of-practice focused on well-defined professions (*Richter* 1998) and so *Richter's* empirical study (*Richter* 1999) was different as it focused on executives.

<sup>34</sup> The study involved a small sample of seven executives. Although communities-of-practice are informal and so difficult to research, the study was only based upon interviews and so is totally depended on the espoused theory of the interviewed top managers. Additional research in that field would be desirable.

<sup>35</sup> *Wenger* (1998) would not consider these groups as communities-of-practice.

This raised the question which methods can be derived from controlled experimentation with formal structures. *Kammel* (2000, pp. 382), who highlights the importance of 'formal communities', emphasises the impact of structures as both, starting point and result of TLOL<sup>36</sup>.

First, top managers learn as part of formal communities<sup>37</sup> from each other and through the design of new structures. Though their empirical study generally concentrated on project groups involved in important corporate initiatives and not only on top managers, this is supported by *McGrath et al.*'s (1995) research. They found that organisations or parts of it develop new competitive advantages through the pursuit of new initiatives and the corresponding two emerging processes: 'Comprehension', which means that a common and precise understanding is developed what combinations of resources will allow the achievement of the objectives. And 'deftness', which captures the extent to which a group of people possesses a developed collective mind<sup>38</sup>. However, they did not further specify what initiatives were pursued. On top of that *McGrath et al.* (1995, p. 253) themselves admit that the problem that arises from their approach in fast-changing environments is that decisions and actions must be pursued in the face of ambiguity and uncertainty. As a result, its returns are uncertain and the team managing a project is likely to experience gaps between the initially defined objectives and the actually achieved results (similar: March 1991, p. 85). Sometimes the newly-generated competences and knowledge would even not be known at the outset. This even raises more questions what initiatives for TLOL can be deployed in turbulent environments.

On the other hand, from a different perspective, structures mark the framework for the top management's 'structural leadership', as *Kammel* (2000) called it. This means that formal

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<sup>36</sup> A similar approach is applied by *Klimecki* (1997) who described the top management as facilitators and at the same time as representatives of learning.

<sup>37</sup> Annotation: Such communities can also comprise e.g. (internal) customers or consultants.

structures enlarge or limit top management's repertoire of possible actions and behaviour by means of inherent demands, constraints and choices (see also: Stewart 1982). Structures so circumscribe the top management's necessities, capacity, willingness and opportunities to learn and each restructuring, each reconfiguration and resulting change of the job has implications for the learning of the concerned top managers (Kammel 2000, p. 382). Hence, the formal structuring and restructuring of an organisation cannot only be interpreted as a means of targeted controlling of behaviour (similar: see Schanz 1994), but also as a means to 'channel' TLOL (Kammel 2000). This raised the question which structural elements are important for TLOL and have to be changed in order to trigger or foster new learning.

Although *Kammel* (2000) neither specified the corresponding methods for TLOL in fast-changing environments, nor provided empirical evidence, there are a series of suggestions from other academics in the field, even if their work in most cases did not concentrate explicitly on top managers.

*Mintzberg's* work on the structuring of organisations (Mintzberg 1992, p. 329) thus shows that co-ordination can be achieved by establishing a system of common supervision, by obliging units to share common resources and knowledge, by establishing assessments on common measures of performance or by putting members of an organisation into close physical proximity with one another in order to foster communication and mutual adjustment. This suggests that organization development initiatives that aim to change the mentioned components of the structuring of the organisation could serve as a method for TLOL. However, there is no empirical evidence for that so far.

Nearly the same is valid from a knowledge perspective. When considering the firm as a knowledge-integrating system (Grant 1996), the internal structure of the firm and the top management has implications for the role of the hierarchy and the location of decision-

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<sup>38</sup> This means that the team has an effective team organisation and the relationships in the team can be characterised by interpersonal trust and predictability.

making. Whereas decentralised structures help to integrate tacit or idiosyncratic knowledge in decision-making and related learning, a centralised location of decision-making is following *Grant's* suggestion feasible if the knowledge relevant to a particular decision can be concentrated at one point in the organisation (Grant 1996). Both approaches have strong and weak points. According to *Mintzberg* (1992), centralisation ensures the very tightest form of coordination. In contrast to that, "... *decentralization allows the organization to respond quickly to local conditions in many different places, and it can serve as a stimulus for motivation ...*" (Mintzberg 1992, p. 335). However, there is a dilemma if decisions and deriving actions require many types of knowledge that is resident in many individuals. Then team-based structures are necessary. If, however, these individuals are too numerous to be coordinated, their team membership has to be made fluid or they have to "*occupy multiple organizational roles involving membership of multiple teams*". (Grant 1996, p. 119).

What this means for TLOL remains unanswered in the current literature, which is due to the fact that, according to *Hambrick* (1994), despite the great significance to any complete theory on top managers, the structure of top management groups has gone almost totally without attention in research to date. *Hambrick* (1994) himself points out that depending on the degree of task interdependence, the structure of the top management group, as it can often be found in diversified firms, creates a tension regarding group identities and can lead to role ambiguities and conflicts. However, little is known so far about the impact of the structure of the top management group and its change on TLOL, either at divisional or at corporate level.

All things considered, it can be summed up that despite the prevailing opinion in the organisational learning literature that structures play an important role for organisational learning, there is still a limited understanding of such methods for TLOL and of the

interrelationships between the change of the structuring of the top management and/or the organisation and TLOL. For that reason, corresponding empirical research is absolutely needed (Kammel 2000, p. 337 and pp. 382, 389). After all, the structuring of the organisation and the top management is no trivial issue, particularly not in complex organisations with different businesses, in fast changing-environments, when idiosyncratic or tacit knowledge is concerned and simultaneously new knowledge is required, or when it conflicts with other organisational models (e.g. the bureaucratic approach; Grant 1996). This available study should attempt to contribute to filling this gap.

### **2.6.3.2 Strategy and TLOL**

Andrews (1998) considers the formulation and implementation of strategy as an organisation process that is in many ways inseparable from structure and other organisational aspects and again supports the importance of 'formal' communities of practice and structures for TLOL. It is widely accepted in the strategic management literature that "... *strategy reflects a pattern of conscious managerial decisions ... aimed at ensuring organizational adaptation*" (Thomas and Pruett 1993). Whereas corporate strategies usually apply to the whole enterprise and define the businesses in which a company will compete, business strategies apply only to an individual business within the firm and determine how the company positions itself among its competitors in a given business (Andrews 1998).

According to Mintzberg (1995), learning processes play a key role in the development of strategies and new competitive advantages, if not the key role. This leads to the assumption that certain methods and initiatives for TLOL are linked to strategy development and implementation, and that on the other hand the outcomes of strategy

implementation can be seen as an indicator for the quality of strategy development and the related learning processes of the top management.

Following *Mintzberg* (ibid) the learning implication of strategy development for the top management derives not simply from the formalised process by which decisions are planned and prepared, different strategic options are developed and evaluated with regard to their risks and opportunities and strategic and operative decisions are made and co-ordinated<sup>39</sup>. Organisational learning of the top management is rather perpetuated and institutionalised by the fact that the top management is asked to think in a systematic and continuous way about the future of the company.

In contrast to that, *Quinn* (1980) emphasises the importance of the quality of the strategy development process. He argued that learning processes can be triggered and the quality of strategic decisions can be improved “... *by systematically involving those with most specific knowledge, by obtaining the participation of those who must carry out the decisions, and by avoiding premature momenta or closure which could lead the decisions in improper directions*” (Quinn 1980)<sup>40</sup>. Hence, according to *Quinn* (ibid), the formal strategy development process is less important than the right compilation of the group of top managers who are charged with the development of the strategy. This suggests that, depending on the knowledge requirements and the expected effects of strategy implementation, this group of top managers should be more or less extensive. In some organisations, strategy development will be limited to the CEO and the small group of top managers who report directly to him or her, i.e. the top management team. In diversified, divisionalised, large companies also business unit heads will probably have to be included who do not have the same scope of responsibility than the CEO or a member of

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<sup>39</sup> It has been shown that formalised planning does not necessarily correspond to effective planning (Armstrong 1982; Rhyne 1986).

<sup>40</sup> Likewise *Steiner* emphasises that involvement and common reflection are crucial for strategy development (see also: Steiner 1969, p. 95).



the top management team, but partially oversee very large organisations (Finkelstein and Hambrick 1996, p. 8).

Following *Hambrick* (1994) and *Finkelstein and Hambrick* (1996) for these formal communities to work effectively on strategy, continuous encouragement by the CEO is required. *Eisenhardt et al.* (1998, p. 31) pointed out that regular and/or frequent interaction between the top managers is needed. Following the findings of *Richter's* (1999) study this interaction should mainly happen as face-to-face talks or meetings<sup>41</sup>. Otherwise top managers would fail to engage in the learning process and fail to have sharp views of their own opinions and those of their colleagues.

However, apart from the quantity of top managers to be involved in the strategy process, the literature leaves unanswered whether different kinds or which kinds of top managers should be involved in the development of corporate and business strategies from a learning perspective. Likewise, the interplay between the development and implementation of corporate as well as business strategies and their meaning for TLOL remain unclear in the current literature. This, although according to e.g. *Campbell et al.* (1995), a poor co-ordination of corporate and business strategies, can lead to wasteful investments. This suggests applying a research design for this study that allows considering both, corporate as well as divisional top management groups.

#### **2.6.4 Competency-Acquisition and TLOL**

As already shown, *Yeung et al.* (1999) identified competency acquisition as a further effective style of organisational learning at management level in fast-changing environments.

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<sup>41</sup> *Richter* (1999) found that top managers have despite a challenging travel agenda and means of electronic communications a strong preference for face-to-face contact especially if the issue is sensitive in some regard.

Among other things, it involves, according to *Yeung et al.* (1999), ‘borrowing’ competences from e.g. consultants, external experts or peers. This conflicts, however, with *Richter’s* (1999) empirical study on executive learning, which found that due to competitive boundaries top managers considered as a taboo, sharing conversations about challenging situations with colleagues outside the organisation—particularly with those within the same industry. As in *Yeung et al.’s* (1999) study mainly middle managers were involved, this derivation between the two empirical studies can be attributed to the specific characteristics of top managers. So can, according to *Richter* (1999), the high preference of top managers to seek advice on a fee-for-service or expert-by-expert basis from an “expert” such as a management consultant, coach or an independent expert (see: *Berthoin Antal and Krebsbach-Gnath*, 2001) be attributed to positional solitudes that are created by the dynamics related to positional power and status.

More important for organisational learning than borrowing competences is, however, ‘buying competences’ and the use of corresponding (combinations of) methods such as external recruiting, acquisitions etc. This confirms *Simon*, who stated that learning can also take place by “.... *ingesting new members who have knowledge the organization didn’t previously have*” (*Simon* 1991, p. 125). It is likewise supported by *Virany et al.* (1996) and *Kammel* (2000), who highlight the role of executive succession and ‘newcomers’ at top level for organisational learning. Hence, TLOL can also be triggered by changing not only the size and the structure, but also the composition of the top management.

#### **2.6.4.1 Changing the Composition of the Top Management**

Against that background, *Hambrick and Mason* (1984), as proponents of the upper-echelons theory, further elaborate the previous discussion (see section 2.6.2.2) on strategy and the related learning processes. They argue that the quality of strategy is

highly affected by the top management and consider strategies and effectiveness “... as reflections of the values and cognitive bases of powerful actors in the organisation” (Hambrick and Mason 1984, p. 193). Strategic choices are influenced by executive experiences, so that organisational outcomes can be partially predicted from managerial backgrounds, which in turn result from learning from previous experience. According to Hambrick and Mason (1984), it is even possible to control TLOL to a certain extent by modifying the composition of the top management. According to Miles and Snow (1978), these strategies are self-reinforcing over time, which means that executives with competencies in the required areas come to have great power and be more present in the organisation (a similar point is made by Cho and Hambrick 2006, p. 456).

The reflection of managerial backgrounds in strategies and organisational outcomes is attributed to a filtering process (see: Finkelstein and Hambrick 1996, p. 42) that top executives use to construct their reality of the strategic situation. Hence, the complex decisions made within the scope of strategy development and implementation are largely the outcome of behavioural factors and top management characteristics.

However, based on the limited existing<sup>42</sup> and partly inconsistent research that has been done in this area, only some associations between managerial characteristics and organisational strategies/outcomes could be identified (see table 2 below).

Managerial characteristics	Linkages to organisational strategies/outcomes <sup>43</sup>
Age	<ul style="list-style-type: none"> <li>- Low age of top managers seems to be associated with volatility of sales and earnings as well as growth even though it is not possible to disentangle the extent to which growth leads to youth and vice versa (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> <li>- High conflict top management teams that include large age spreads outperform other teams (Eisenhardt et al. 1998; Wagner et al. 1984, p. 88).</li> </ul>

<sup>42</sup> Hambrick and Mason (1984) highlighted a strong need for further empirical research.

<sup>43</sup> Due to different industry vitality and the important impact of industry characteristics Hambrick and Mason (1984) recommended to compare managerial characteristics within an industry.

<b>Functional track</b>	<ul style="list-style-type: none"> <li>- The functional orientation that usually has developed from experience in some primary functional areas is likely to develop distinctly different orientations to the firm and its environment. A positive association is identified between the degree of output-function experience of top managers and the extent to which the firm emphasises outputs in its strategy (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> </ul>
<b>Other career experiences</b>	<ul style="list-style-type: none"> <li>- Chief executives brought in from the outside tend to make more changes in structure, procedures, and people than do chief executives promoted from within. Executives who have spent their entire careers in one industry or even one organisation can be assumed to have relatively limited perspectives. On the other hand tested working relationships might serve the organisation well in periods of stability (Hambrick and Mason 1984).</li> </ul>
<b>Tenure</b>	<ul style="list-style-type: none"> <li>- Executive tenure is highly positively related to strategic persistence or absence of strategic change. Every increase of tenure brings an even higher level of strategic persistence. A further positive association has been found between executive tenure and performance conformity to industry averages, i.e. the longer the tenures of the top executives, the more the performance of their companies aligned with the average performance of their industries (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> <li>- <i>Gabarro's</i> research (Gabarro 1987) suggests that all the actions taken by new executives occur in the first 2.5 years in office. After that is a period of "refinement".</li> <li>- Change follows succession. The nature of this change varies depending on successor characteristics and contextual factors (Kesner and Seboria 1994, p. 357)</li> <li>- Top management groups with extensive tenure build specific firm and industry knowledge which is useful when the firm requires efficiency or past experiences have to be used to predict future events. It is less useful in times of uncertainty and change (Becker 1970).</li> </ul>
<b>Formal education</b>	<ul style="list-style-type: none"> <li>- The level of education (not the type) is positively related to receptivity to innovation. Furthermore studies suggest that an executive's amount of formal education is associated with intellectual dexterity (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> <li>- Moreover, research revealed that in some countries (e.g. UK) a background in a particular socioeconomic group (e.g. Oxford, Cambridge) is important for establishing interorganisational ties (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> </ul>
<b>Group Heterogeneity</b>	<ul style="list-style-type: none"> <li>- Routine problem solving is best handled by a homogeneous managerial group, and ill-defined, novel problem solving is best handled by a heterogeneous diverse group of top managers (Hambrick and Mason 1984; Finkelstein and Hambrick 1996).</li> <li>- Heterogeneous top management teams outperform other teams due to a more in-depth analysis of available information and the avoidance of blind spots, the development of a variety of creative and possible options and a stronger commitment of those who are in charge of the implementation (Jackson 1992, p. 354; Ginsberg 1994, p. 162).</li> </ul>
<b>Combination of managerial characteristics</b>	<ul style="list-style-type: none"> <li>- <i>"Firms most likely to undergo changes in corporate strategy had top management teams characterized by lower average age, shorter organizational tenure, higher team tenure, higher educational level, higher educational specialization heterogeneity, and higher academic training in the sciences than other teams"</i> (Wiersema and Bantel 1992, p. 91). The receptivity to change and the willingness to take risks is affected by demographic traits of the top management team.</li> </ul>

Source: depicted by author

Table 2: Link Managerial Characteristics and Organisational Outcomes/Strategies

*Hambrick and Mason* (1984) and other authors were criticised by *Jackson* (1992). Based on *Murray's* work<sup>44</sup> (1989) she claimed that processes through which the composition of the top management team exert an influence on organisational performance are not yet understood and that

*“... a priori specification of empirical relationships between top management team composition and organizational outcomes is difficult”* (*Jackson* 1992, p. 348).

This is reflected in e.g. the inconsistent results of empirical research on the linkages between demographic homogeneity, or diversity of the top management team and firm performance (e.g. *Murray* 1989; *Wiersema and Bantel* 1992; *Glick et al.* 1993), (*O'Reilly et al.* 1993; *West and Schwenk* 1996), which can partly be attributed to methodological problems. The definition of firm performance thus varied or was reduced to published financial data or self-report performance measures (compare also section 3.7.4.2 on the effectiveness of organisational learning). A second problem can be seen in the fact that researchers have focused on demographic diversity instead of cognitive diversity and that demographic diversity is only indirectly linked to organisational outcomes (for further details see: *Miller et al.* 1998).

Against the background that empirical research on these linkages is still very weak, it seems not to be justified to draw simple conclusions. The research design should therefore allow considering how the composition of the top management changed in the course of time (e.g. as regards age, tenure, knowledge that came in and that got lost etc.) and how it related to strategic and organisational change of the whole enterprise. The revised literature furthermore brings up the question what triggered changes in the composition of the top management.

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<sup>44</sup> Corresponding to *Murray* (1989) there are a variety of factors that have an impact on financial performance indicators. Among those the composition of the top team, the industry studied, the performance measures used, the length of time assumed to be necessary for effects to appear and the definition of the top management team.

Apart from that the discussion raises the question why apart from methodological problems the ‘ingestion’ of new members at top level leads to inconsistent research results. This will be considered in greater detail in section 2.7 on drivers and barriers of top-level organisational learning.

#### **2.6.4.2 Top Management Training**

Learning by competency-acquisition goes beyond external recruiting, external acquisitions and a resulting changed composition of the top management group. Corresponding to *Yeung et al's* (1999) model likewise training can be seen as an appropriate method to get hold of new competences in fast-changing environments.

This conflicts with *Kammel* (2000, p. 659), who confirmed that management development incl. training can initiate and support learning processes at top level. But, he came to the conclusion that irrespective of if ‘off-the-job’-learning is culturally accepted or not (see: *Antonacopoulou* 2002), and despite important investments in training programmes for (top) managers, training cannot guarantee strategic change and the alignment of learning processes<sup>45</sup>. Training could rather only increase the probability and efficiency of strategic change and TLOL. And likewise, *Beer et al.* (1990) claim that the relevance of training for organisational learning remains indirect at best. The concern is that...

*“...training programs, regardless of how personally powerful, do not change organizational behaviour ... [because] these programs simply do not affect enough elements in the system—roles and responsibilities at work, the boss, rewards, and structure, for example—to change organizational behaviour”*  
(*Beer et al.* 1990, p. 33).

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<sup>45</sup> Apart from the fact that top managers have a certain aversion with regard to “institutionalised” off-the-job training, a series of management researchers (*Rewans* 1977; *Hague* 1979; *Casey* 1980) argue that much off-the-job learning tends to be far removed from the ‘real world of managers’ and presents the manager with major difficulties in transferring knowledge back to the work environment (for further details on transfer problems cf. *Belling et al.* (2004)).

For that reason *Salaman and Butler* (1994) argued that sometimes off-the-job training can even be counterproductive or frustrating for the top managers concerned. Particularly when organisational structures, organisational culture and micropolitical configurations are not changed. So new ways of thinking and acting could not be applied, would not be fostered or rewarded and therefore would remain without positive effects (*Salaman and Butler* 1994).

This suggests that in fast-changing environments, top management training will presumably play a subordinate role for TLOL, but rather serve other purposes (see e.g. *Kammel* (2000, p. 72). This will have to be verified within the scope of this study.

In the following section, the drivers and barriers of top management learning will be analysed.

## **2.7 Drivers, Barriers and Disturbances of TLOL**

### **2.7.1 Introduction**

In the previous sections, the literature on TLOL in organisations that undergo massive change was reviewed. However, TLOL, like learning in general, does not automatically result in performance, organisational efficiency and sustainability, i.e. in positive results (*Dodgson* 1993; *Levinthal and March* 1993). Besides, not all improvements can be attributed to learning but emanate from external or other influences. Depending on the absence or presence of such factors the quality of learning processes can turn out differently which is why in this section the literature on drivers and barriers of TLOL will be reviewed.

In general it can be stated that there is a very rich, sometimes confusing literature in this field, which is why a discussion of all potential factors that foster or inhibit organisational

learning would go far beyond the scope of this study<sup>46</sup>. However, most of the literature on drivers and barriers is not related to the organisational learning of that particular group of people at the top of the organisation.

In general, there are different, only partly consistent findings on drivers and barriers of TLOL in the current literature and research. As will be shown, these findings suggest that some aspects can have, depending on the specific context, both a driving or an inhibiting effect, which highlights the need to take a differentiated view on the organisational and external environment. As factors that foster or impede TLOL can be observed at different levels of the organisation, they will now be considered in greater detail in the following separate sections.

### **2.7.2 Exogeneous Drivers and Barriers of TLOL**

In the executive learning literature change was identified as an important driver of TLOL. *Richter* (1999) differentiated within the scope of her empirical study on executive learning and situated learning at top level between different levels of change. She argued that TLOL is fostered e.g. by adjusting to (macro) change that arises from organisation's decisions to take strategic courses of action (e.g. a merger decision). Moreover, TLOL is triggered by producing or directing change, by responding to micro or local work challenges, or by life-cycle change as a result of changing age/stage interests. This is similar to the findings of *Antonacopoulou's* research (1999) on management learning in the retailing banking sector, which establishes a close connection between a series of external forces such as trends in the world economy, changes in the market, the intensification of competition and the need for learning.

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<sup>46</sup> Annotation: further references are available from some overviews about the literature on drivers and barriers (e.g. Argyris 1980; Levitt and March 1988; Senge 1990; Kim 1993; ILOI 1997; Berthoin Antal et al. 2001).



A series of other authors complement the list of potential exogenous drivers and barriers of organisational learning but not with a particular view on the top management<sup>47</sup>.

In spite of that, overall the literature does not clearly specify the exogenous factors that exert an influence on TLOL. Likewise, no differentiation is made between different top management groups (e.g. corporate versus divisional top management groups) on which these factors can have a different impact. As, according to *Kammel* (2000, p. 104), the array of potential change forces is wide, a differentiation and additional empirical research is absolutely required. This study should contribute to that.

### **2.7.3 Factors that Foster or Hinder TLOL at Organisational Level**

At organisational level, *Antonacopoulou* (2002) identified in her empirical study the perceived encouragement by the organisation as an important driver for TLOL. The encouragement by the organisation would 'authorise' the learners to throw institutionalised norms, practices and policies within the organisation into question. She furthermore identified a strong relationship between the attitude of the senior management, structures and mechanisms in place to support learning, which are in turn influenced by the historical approach and the tradition in the sector (e.g. public vs. private organisations, *Finger and Bürgin-Brand* 1999, *LaPalombara* 2001)

In contrast to that, *Tainio* (*Tainio et al.* 2001) particularly emphasises the role of (supervisory) boards for TLOL, which can contribute to a turnaround in a performance crisis by replacing the current management. *Finkelstein and Hambrick* (1996) and *Hannan and Freeman* (1984) point out that the organisational size and inertial forces can exert an important influence on (top-level) organisational learning.

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<sup>47</sup> e.g. ambiguity/ uncertainty (*March and Olsen* 1975; *Klimecki and Gmür* 1997; *Blutner* 1996); influence of politics in public sector organisations (*Finger and Bürgin-Brand* 1999) and the normative idea (*LaPalombara* 2001); orientation on short-term results (*Senge* 1990); time (*Weber and Berthoin Antal* 2001; *Bleicher* 1985); Speed of environmental change (*Bourgeois* 1988).

Just as for exogenous factors, a series of authors identified further potential drivers of and barriers to organisational learning at organisational level, but not with a particular view on the top management<sup>48</sup>. However, as the top management and its organisation form an inevitable learning community (Klimecki 1997), some of them will briefly be described here. *Friedman et al.* (2001) suggest, for instance (similar cf. Yanow 2000), complementing the structural element of the organisation by “...the elements of an organisation’s culture that facilitate or inhibit learning” (Friedman et al. 2001, p. 760). *Sennet* (1998) and *Lounamaa and March* (1987) identified too many changes in the organisation as a barrier to organisational learning. A high frequency of organisational change may produce chaos and instability. The individual and the organisation would not be able to stand still and reflect on its past. In other words, changes that are too frequent inhibit learning. Likewise *March* (1991) identified competition among managers for internal resources and hierarchical promotion as a barrier to organisational learning which should be particularly strong in times of staff reduction etc.

Altogether, the literature again does not clearly specify the factors that exert an influence on TLOL, which is why further research is required.

#### **2.7.4 Drivers and Barriers to TLOL at Top Management Level**

Numerous further drivers of and barriers to TLOL were identified at top management level. One of these factors, which has already been mentioned in connection with the composition of the top management, is diversity or heterogeneity of the top management. Diversity can foster and inhibit TLOL, which is why *Hambrick* (1994, p. 200) describes diversity as no means and no ends in itself.

Corresponding to *Wiersema and Bantel’s* (1992, p. 89) empirical study, outsiders are more likely to bring new beliefs into the top management. On the other hand, however,

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<sup>48</sup> e.g. Psychological contract: *Cavanaugh and Noe* (1999); *Morrison*, (1997); *Antonacopoulou* (2002); *Storey*, (1997), Incentive systems: *Ginsberg* (1994), slack resources: *Dutton and Freedman* (1985), History/ Path dependency: *Fear* (2001).

external recruits have to invest considerably in the internalisation of the prevailing thinking and procedures in the group (“learning the ropes”) (Kammel 2000, p. 495) as well as the establishment of new contacts and management networking. In spite of that, mental maps, values and opinions of the managers on the lower hierarchical levels can turn out to be incompatible with the ideas and proceeding of the newcomer at the top and cause important resistances and barriers to change. As a result new external hires often bring with them collaborators who enjoy their trust and who should help them to establish their power in the new organisation. This enhances internal competition among managers, causes ‘domino effects’ and a further increase in diversity in the organisation (Forbes and Wertheim 1995).

The literature and research suggests, however, that the significance of diversity for TLOL goes back rather to the tension between conflict—as a result of heterogeneity—and cohesion—as result of homogeneity or similarity. According to *Eisenhardt et al.* (1998), a constructive conflict “... reflects a continuously evolving understanding of the world that is gained through interaction with others around alternative viewpoints. Moreover, conflict is highly emotional in that it requires both the confidence and motivation to engage in a process that many executives dislike and avoid” (Eisenhardt et al. 1998, p. 38).

So conflicts trigger learning processes. Groups without conflict lose their effectiveness. This is why “*too little conflict can be disastrous*” (Eisenhardt et al. 1998, p. 28). *Eisenhardt et al.* (1998) found that age differences are particularly powerful with regard to conflicts. High-conflict top management teams would often include executives with age spreads of twenty or more years. This squares well with the findings of *Wagner et al.*’s (1984) study on organisational demography and turnover in top management groups. They identified a link between diversity and conflict and found that “*People who are most likely to leave are*

*those who are most different in terms of these individual-level values and orientations, and these are age-based at the individual level of analysis*” (Wagner et al. 1984, p. 88)<sup>49</sup>.

Apart from the fact that executives find conflict unpleasant because of their emotional dimension and of fear that endless debate will lead to slow decision making, constructive conflict resolution presupposes a certain degree of cohesion, i.e. that people know each other, that they have sufficient trust in each other and the will to solve the conflicts. *Wagner et al’s* (1984) study shows that top managers are likely to communicate more readily with persons presumed to be similar—similar with regard to beliefs and values which change at different stages of life and individual experience. This has in turn a direct impact on team cohesion and integration<sup>50</sup>. This is likewise confirmed by *Hambrick* (1994), who considers behavioural integration as a driver for TLOL and highlights that behavioural integration leads to a higher number of team-based and so more effective decisions<sup>51</sup>. *Hambrick* (1994) furthermore emphasised the role of the CEO for behavioural integration. A CEO could either enhance or diminish the behavioural integration of the top group and could also alter its configuration. This can be achieved e.g. by means of reward systems which emphasise teamwork or through the CEO’s own behaviour. The latter point corresponds to *Richter’s* (1999) findings, which confirmed that the model of the CEO or colleagues fostered TLOL and encouraged top managers to experiment with new behaviours<sup>52</sup>.

The discussion shows that cohesion or behavioural integration presupposes learning as well—even if different knowledge is required. According to *Miller et al.* (1998), lacking

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<sup>49</sup> *Wagner* pointed out that this is not the only factor for turnover to occur. Other factors, such as career plateauing are also associated with turnover (Wagner et al. 1984, p. 89).

<sup>50</sup> Further references are available from ((Wagner et al. 1984, p. 77).

<sup>51</sup> *Hambrick* (1994) argues that in the absence of behavioural integration the CEO would have to make some major decisions.

<sup>52</sup> *Scherer and Tran* (2001, p. 380) point out that prestige and perceived success of the model play an important role for “imitation learning”.

cohesion causes problems with respect to communication, integration and political behaviour which overwhelm any positive effects of diversity and conflicts in top management groups. This has to be taken into consideration when corresponding methods for TLOL such as external recruiting, acquisitions etc. are used.

*Jackson* (1992) described the emanating challenge as following:

*“The dilemma arises because cohesiveness and conflict appear to be incompatible, yet the evidence indicates that both can be beneficial”*

(*Jackson* 1992, p. 367).

This means that a balance has to be found between “useful conflict<sup>53</sup> potential”—as a result of heterogeneity and corresponding diverse and alternative viewpoints with regard to organisational goals, values, and beliefs about the connections between actions and outcomes—and “necessary cohesion” of the team—as a result of a homogeneous team that underwent socialisation and group processes which led to confidence and a common language among the team. The current literature and research in the field of organisational learning however leaves unanswered when more or less diversity is required and appropriate.

### **2.7.5 Individual Drivers and Barriers of TLOL**

A final set of factors that drive or hinder TLOL are identified in the literature that result from specific characteristics of top managers.

Following *Culley* (1989) and *Senge* (1990) top managers are action-oriented and lack self-reflective competence, which can impede TLOL. Beyond that *Richter* (1999) identified deeply held norms about power and influence as an important barrier to TLOL.

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<sup>53</sup> For further details and references see *Eisenhardt et al.* (1998).

These would, as elaborated earlier, impede top managers engaging in anything else than formal forms of communities-of-practice.

She identified within the scope of her fieldwork a lack of personal trust and confidence in former colleagues as another barrier to TLOL as well as competitive boundaries with colleagues outside organisational boundaries. *Richter* (1999) emphasised that top managers themselves are reluctant with regard to one-to-one discussions with other executives. Frank conversations are only viewed as possible when the top manager worked enough with the person, e.g. within the scope of shared working experiences, and/or when he knows that that he will give good advice. Apart from the trust issue, top managers are according to *Richter* (ibid), also concerned whether the person worked enough on this issue in or for this company to know how things are going on in this particular organisational context. As a result, top managers often deal largely on their own with their own problems which supports *Antonacopoulou* (2002) who identified the personal motivation of managers in her empirical study on top management learning as a crucial point for TLOL.

As there is still little known about the relevance of individual drivers and barriers for learning on TLOL this study might contribute to fill this gap.

### **2.7.6 Overarching Drivers and Barriers of TLOL**

Finally, factors that foster or hinder learning can obviously be located at different levels of the organisation.

In this regard, *Finkelstein and Hambrick's* (1996) model of managerial discretion refers to three main forces affecting executive/managerial discretion:

- *task environment* (i.e. the product differentiability, market growth, industry structure, demand instability, quasi-legal constraints, powerful outside forces, capital intensity),

- *internal organisation* (i.e. inertial forces [size, age, culture, capital intensity], resource availability, powerful inside forces), and
- *managerial characteristics* (e.g. aspiration level, commitment, tolerance for ambiguity, cognitive complexity, internal locus of control, power base, political acumen).

It thus sums up factors at different levels of the organisation as well as of the external environment. According to *Finkelstein and Hambrick* (1996) but also *Whittington* (1990; 1992), the top managers as learning agents have a certain discretion to decide which parts of their learning environment they consider as important and how they intend to respond to that.

Following *Finkelstein and Hambrick's* (1996) suggestion, managerial discretion is derived from these three sets of factors that greatly affect how much influence top managers have on organisational outcomes. Only when high discretion exists and top managers are aware of and have multiple possible courses of action are executive actions and learning reflected in organisational outcomes. *Finkelstein and Hambrick's* (1996) work and model of managerial discretion considers executive actions in general. As executive learning is however an integral part of managerial work (see sections 2.4.2 and 2.4.3) it is suggested by this research that *Finkelstein and Hambrick's* model can likewise be applied for TLOL. It will have to be investigated in this study whether this promising attempt contributes to a better understanding of the concept of TLOL and the interrelationships between the top management and its organisational and external learning context.

## **2.8 Conceptual Framework and Research Questions**

### **2.8.1 Introduction**

The above review has scrutinised the literature on top-level organisational learning. A large amount of contributing literature has also been touched on but is not the main focus

of this research. In this section, the key issues identified in the literature review are summarised and synthesised in a conceptual framework that specifies the analytic strategy of the research. Furthermore the research questions that will be explored in this study will be derived from the literature.

Due to the strong theoretical fragmentation of the concept of organisational learning, it has to be stressed here that not all theoretical gaps can be covered in this single study. In addition, it is found that not all the theoretical gaps identified can be researched. This study accordingly chooses to select researchable questions that are of broad significance for a better understanding of the problem of organisational learning at top management level in an environment of change.

### **2.8.2 Conceptual Framework**

The objective of the conceptual framework, which is based upon the conceptual building blocks of the literature on TLOL, is to specify the analytic strategy of the research. The purpose of this strategy is to contribute to making the researcher's map of the territory under investigation and the researcher's understanding of how s/he is construing theory explicit. This is important because it—consciously or not—inevitably exerts an influence on the approach to data analysis (Miles and Huberman 1994, p. 434). The analytic strategy or conceptual framework, which interacts with and is operationalised by the research questions that were derived from the literature review, will provide the reader with a clear understanding of the central theme under investigation and its boundaries<sup>54</sup>, and will explain the structure around which the analysis chapter is organised. For further details on the approach to data analysis of this study, reference is made to section 3.9 on data analysis in the methodology chapter.

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<sup>54</sup> i.e. of what was and of what was not studied.



The present framework for examining top-level organisational learning in fast changing environments is composed of four key components that are highly interrelated. Each of these key components will now be briefly outlined.

The first constituent part, *exogenous factors*, is derived from the discussion of organisational learning as a response to environmental change (Cyert and March 1963), which was further elaborated with regard to TLOL by *Richter* (1999) and *Antonacopoulou* (1999). It comprises all factors of the external environment that generate or impede a pressing need for action and that expand or narrow the top management's options to learn.

The *strategy* component describes the objectives of the organisation and the strategic choices that are made by the top management, in order to orient the organisation accordingly over all hierarchical levels. These choices and the development and implementation of strategies for which learning processes of the top management play a key role (Mintzberg and Quinn 1991) are influenced by exogenous factors, the firm's resources and capabilities as well as the top management itself. Depending on the top management's field of activity, one must differentiate between corporate and business strategies (compare: Andrews 1998).

The parameter *organisation* is synonymous with the organisational learning environment of the top management. Specific characteristics of the organisation of which the top management is a constituent part influence the development and implementation of strategies and related learning processes.

The organisation and the last constituent, the *top management*, i.e. a defined group of top managers at the hierarchical pinnacle of the organisation<sup>55</sup>, form an inseparable learning

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<sup>55</sup> The focus of appraisal in this context is not on the individual top managers themselves but rather on the top management as a whole.

community (Klimecki 1997). The top management is derived from the notion of the 'duality of structures' (see Berends et al. 2003; Kammel 2000), not only composed of "actors" who undertake actions and interact. Top management and its organisational environment are likewise comprehended as "resources" that mark the framework for top-level organisational learning by shaping top managerial roles and by defining the capacity, willingness, opportunities or necessities to learn.

### **2.8.3 Theoretical Gaps and Research Questions**

Having briefly outlined the conceptual framework, the theoretical gaps that were identified in the literature review will now be summed up. The research questions that will operationalise the conceptual framework will be derived from that.

Overall, the review of the existing literature and research revealed that empirical research on organisational learning styles at top management level or methods for TLOL is still very sparse, and it remains to be empirically verified whether the results of *Yeung et al's* (1999) promising study on organisational learning styles, which was carried out with mainly middle managers, can unrestrictedly be applied for top managers.

Irrespective of that, it is little understood what determines the methods for TLOL. They also need to be specified and require further empirical evidence. It could, for instance, thus be found that, despite the prevailing opinion in the organisational learning literature that structures play an important role for organisational learning (e.g. Friedman et al. 2001; Kammel 2000), there is still a limited understanding of such methods for TLOL and of the interrelationships between the change of the structuring of the top management and/or the organisation and TLOL (Kammel 2000, p. 337 and pp. 382, 389).

The same is valid for other methods for TLOL. Although, according to *Simon* (1991), TLOL can take place by ingesting new members with knowledge the top management did

not previously have (similar: Hambrick and Mason 1984; Virany et al. 1996), there is also limited existing and partly inconsistent research on the associations between managerial characteristics and organisational strategies/outcomes. This leads to the first fundamental research question:

- What initiatives and methods for top-level organisational learning were deployed?  
And why?

The review of the literature likewise showed that most existing research on top managers concentrated on CEOs and a very small group of top managers that directly reports to him. As a result no differentiation is made between corporate and business top management groups as they can be found in diversified firms. Little is known about the interplay between the development and implementation of corporate as well as business strategies and their meaning for TLOL. This although it is known that learning processes play a key role for strategy development (see Mintzberg and Quinn 1991) and that the involvement of the right people in the strategy process is a crucial aspect for learning (see Quinn 1980; Grant 1996). A second research question is derived from that:

- How and why does top-level organisational learning differ at corporate and divisional level?

Just like organisational learning (Cyert and March 1963), top-level organisational learning (Richter 1999; Antonacopoulou 1999) is above all viewed in the literature as a response to change. Although reference is made to a series of external forces (Antonacopoulou 1999), and the literature suggests that exogenous factors influence the choices made around top-level organisational learning styles and methods (Yeung et al. 1999), and the extent to which TLOL is reflected in organisational outcomes (see Finkelstein and Hambrick 1996), the current literature and research still provides an indeterminate idea

and understanding of the elements of the external environment that exert an influence on TLOL.

Apart from that it could be found that, despite a vast literature on drivers of and barriers to organisational learning, there is little corresponding literature and research that is related to top management (e.g. Richter 1999; Finkelstein and Hambrick 1996). The findings of the literature suggest, that some aspects such as diversity (Hambrick 1994; Wiersema and Bantel 1992) can have depending on the specific context both, a driving or an inhibiting effect on TLOL. The literature likewise suggests that managerial discretion (Finkelstein and Hambrick 1996) plays a crucial role for TLOL, which highlights the need to take a differentiated view on the organisational and external environment.

This leads to the following third research question that will be explored in this study:

- What factors foster or hinder top-level organisational learning, and why?

Overall, it can be stated that TLOL is not yet well understood (Richter 1999). The pursuit of a dual approach to TLOL (Berends et al. 2003) (see section 2.2.2.4), which regards top managers as actors and the organization and the top management as resources, aims at contributing to an enhanced understanding of the concept of TLOL and the interrelationships between the top management and its learning context.

Before moving on to the methodology chapter the table below finally sums up the research questions and relates them to the components of the conceptual framework.

Components of Conceptual Framework Research Questions (RQ)	Exogenous Factors	Strategy	Organisation	Top Management
RQ 1: What initiatives and methods for TLOL were deployed? And why?		X	X	X
RQ 2: How and why does top-level organisational learning differ at corporate and divisional level?	X	X		
RQ 3: What factors foster or hinder TLOL, and why?	X	X	X	X

Table 3: Correlation Map - Research Questions and Conceptual Framework

# **Chapter Three – Research Methodology**

## **3.1 Introduction**

The literature review revealed a series of research questions in the field of top-level organisational learning that deserved further investigation. This raised the question, how to research it. And more precisely what this means for the design of the study and the applied research methods, and which limitations of the study will result from that.

The main purpose of this chapter is to present and discuss the choices made around the methodological approach of this study.

The identification and definition of an appropriate research design that addresses the aims of the research presupposed the consideration of some fundamental issues influencing the research design. The following sections will highlight some of them. Above all the philosophical stance, different research approaches, and strategies. Likewise the selection of an appropriate research design and methodology will be derived in a systematic way, and it will be explained how the data were collected. In addition the boundaries of research design and methods as well as some specific issues with regard to research in the field of organisational learning will be considered. One section is dedicated to data analysis. On top of that one section will critically examine the role of the researcher as an internal, the strong and weak points, potential biases and ethical issues.

## **3.2 Scientific Frame of Reference**

Science is composed of different disciplines. In principle formal and real or behavioral sciences are differentiated (cf. Raffée 1993; Staehle 1994). Whereas formal sciences

such as mathematics or philosophy deal with the construction of languages and an adequate set of rules and regulations for their application, real sciences examine and design 'perceptible realities' (Ulrich 1982). Thus, real or behavioral sciences represent a part of the social sciences and comprise in the widest sense all disciplines that deal preferably with the human dimension. Real sciences can again be differentiated in pure and applied research (Ulrich 1982).

The key feature of pure research is that it aims at leading to theoretical developments. A practical orientation is not mandatorily necessary. The discussion and setting up of hypotheses and theories are rather of decisive importance (Easterby-Smith et al. 1997, 2008c). In contrast to that, the objective of applied research is pragmatic and should lead to the solution of specific problems. Starting point are problems that occur in practice or refer to a practical problem. Therefore the results of applied research have an essential connection with the practical application of constructs and rules in practice.

Based on this understanding of sciences and against the background of the objectives of this study this research project can principally be assigned to applied sciences. This is also underlined by the interest of Deutsche Telekom in the results—and the sponsorship of this study. Nonetheless this assignment is not unequivocally for every aspect of the objectives of the research. Particularly with regard to some sub-objectives this study contains some elements of pure research as well. This is especially founded in the intention of this research project to gain a more in-depth understanding of organisational learning at top management level in a context of change.

However, it has to be pointed out that organisational learning is, just the same as organisational behavior<sup>56</sup>, not a scientific discipline in itself but rather an interdisciplinary approach. As shown in the literature review there is a complex literature and research on organisational learning anchored in an increasing number of disparate scientific scholarships, such as e.g. social, (strategic) management or organisational sciences, so that it is nearly impossible to reduce organisational learning either to pure economics, pure sociology, or pure psychology, etc.

As a result the researcher in the field of organisational learning was confronted with a dilemma: He could either try to undertake this study within one discipline—which would help to gain respectability from academic peers but which could be very limiting, or could adopt a multi- or cross-disciplinary, pluralistic approach to research. The latter “... *is more likely to produce results that are of use to practicing managers*” (Easterby-Smith et al. 1997, p. 5), expands the models of collective action (Hatchuel 2005), but risks to be criticised as eclectic. *Chmielewicz* (1979) even views a risk of ‘dilettantism’ when completely dropping the separation of disciplines. The primary disciplines which are involved would be many and varied: thus it would probably not be possible for any person to be thoroughly versed in theory building and construction in more than one of the primary disciplines. It was decided to agree with *Egner* (1984), who argues that the advantages of overcoming the isolation of separate disciplines clearly prevail and that the risk of dilettantism should not be overestimated because even if an interdisciplinary research approach were formulated, it would not be necessary to deal with the entire psychology, sociology, ... etc. in order to deal with this research question. Rather only very limited parts of these sciences would be needed. This view is likewise supported by

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<sup>56</sup> „Organisational behavior is concerned with the study of the organization’s and group’s effects on the workers perceptions, feelings, and actions, the environment’s effects on the organization and its human resources and goals, and the effect of the workers on the organization and its effectiveness“ (Szilagyi and Wallace 1987, p. 3).

*Giddens* (1995) who reported that he deliberately referred to ideas and concepts of diverse sources when he formulated the theory of structuration. He argues that the claim for a focus on just one discipline could also serve as a mantle for intellectual sluggishness<sup>57</sup>. Following and encouraged by *Giddens* and due to the cross-disciplinary nature of the literature and research on organisational learning it was decided to try to turn the resulting eclectic use of theories and concepts in this study into a virtue in order to gain new insights into the learning of this influential group of managers at the apex of the organisation.

### **3.3 Philosophical Stance**

Before entering into the details about the research design and methods a further section of this chapter is dedicated to the discussion of the main philosophical choices underlying this study.

According to *Easterby-Smith* (Easterby-Smith et al. 1997, p. 21), an understanding of philosophical issues is useful for at least three reasons. Firstly, it can help to clarify research designs. Secondly, it aids to recognise which research designs will—or will not—work and thirdly, it helps to identify or create new or improved research designs that go beyond past experience.

There are a number of philosophical issues that guided the debate about approaches to research in the past. These included such questions as how to define science, what is good science or bad science, what is truth and can absolute truth claims be made, what

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<sup>57</sup> “When formulating my presentation of the theory of structuration, I hesitated to refer to concepts from widely different sources. Some may consider this unacceptable eclecticism, but I myself did not see the force of this objection. Certainly, working within a clearly defined tradition of thinking offers some conveniences—and perhaps even more if you consider the large range of approaches you are confronted with today that belong to no tradition. Nevertheless, the conveniences of established views can easily become a mantle for intellectual sluggishness.”(Giddens 1995, p. 35).



is useful research as well as a series of epistemological<sup>58</sup>, ontological<sup>59</sup>, ethical, and other issues (for further references cf. Miles and Huberman 1994; Baldwin and Lawson 1995; Zucker 1996; Easterby-Smith et al. 1997; Denzin and Lincoln 1998; Denzin and Lincoln 2004).

A central debate concerns the most appropriate philosophical positioning from which research designs and methods should be derived (see. table below):

- the positivist—and
- the phenomenological paradigm.

	<b><i>Positivist paradigm</i></b>	<b><i>Phenomenological paradigm</i></b>
<b><i>Basic beliefs:</i></b>	The world is external and objective.  Observer is independent.  Science is value-free.	The world is socially constructed and subjective  Observer is part of what observed  Science is driven by human interests
<b><i>Researcher should:</i></b>	focus on facts  look for causality and fundamental laws  reduce phenomena to simplest elements  formulate hypotheses and then test them	focus on meanings  try to understand what is happening  look at the totality of each situation  develop ideas through induction from data
<b><i>Preferred methods include:</i></b>	operationalising concepts so that they can be measured  taking large samples	using multiple methods to establish different views of phenoma  small samples investigated in depth or over time.

Source: (Easterby-Smith et al. 1997, p. 27)

Table 4: Key Features of Positivist and Phenomenological Paradigms

<sup>58</sup> Epistemology is the theory or science of the method or grounds of knowledge (Blaikie 1993).

<sup>59</sup> Ontology is the science or study of being (Blaikie 1993).

The positivist paradigm is associated with quantitative methods whereas the phenomenological paradigm is associated with qualitative methods (Easterby-Smith et al. 1997, 2008c).

The triumph of Newton's mechanics in the 18<sup>th</sup> and 19<sup>th</sup> century strengthened the role of positivism—and the associated quantitative methodology—and physics as a prototype and benchmark of “hard” or “good” science. The more scientists of other disciplines succeeded in imitating or emulating the methodology of physics, the more they corresponded to the requirements of that discipline, the higher was their reputation in the scientific or academic community (Capra 1989)<sup>60</sup>.

However, in the course of time this tendency became a real handicap particularly in social sciences and economics, which deal with “living systems” of human beings, which are in continuous interaction with each other and their environment. Increasing occurrences of anomalies caused scientists to question the established logical positivism that seeks the causes of social phenomena with little regard for the subjectivity of individuals (Kuhn 1962). Changes in the philosophy of science occurred as a result of *Kuhn's* (1962) presentation and discussion of paradigm (worldview) shifts. This gave way from a Cartesian reductionist thinking toward a more holistic model that was more complex but necessary in order to better understand and explain the peculiarities of human or social sciences (Miles and Huberman 1994).

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<sup>60</sup> Also *Secretan* (1997) notes in his discussion of organizations, how some organizations are „mechanistic“ and traces this model to Newton.

Derived from a phenomenological stance, this thesis has been influenced by the work of the social constructionists (Berger and Luckmann 1966)<sup>61</sup>. From this perspective, meanings emerge through the verbal and social interaction of actors (Berger and Luckmann 1966), which lead to the main epistemological concern of the social constructionist approach, i.e. to analyse and understand such meanings. As this study focusses on a detailed understanding of certain situations, on explanations rather than predictions the phenomenological paradigm and the notion of reality as socially constructed shaped the underlying logic of the research design and research methodology. This implied to pursue a qualitative research approach (see Easterby-Smith et al. 1997, 2008c).

### **3.4 Quantitative versus Qualitative Research**

Resulting from the “scientific revolution” (Kuhn 1962) (see previous section) a considerable growth of interest in a qualitative research approach could be stated in the early 70s. In spite of the increasing interest in qualitative research and the claims about its potential influence, however, *Bryman* (Bryman 2004; Bryman 1995) observed that overall qualitative research is still not as pervasive in journals and elsewhere.

Qualitative approaches differ from quantitative approaches in that they put—based on a social constructivist approach to reality—a strong emphasis on the perspectives of those being studied and on the interpretation of observations in accordance with the subjects’ own understandings<sup>62</sup>. On top of that, qualitative research gives a strong sense of context and process, i.e. on the unfolding of events in time. Further common features of qualitative research are the proximity of the researcher to the phenomenon observed,

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<sup>61</sup> Reality is seen to be a social construct rather than objectively constructed.

<sup>62</sup> In contrast to that and based on the ontological assumption that social reality is independent of human minds, the role of the quantitative researcher is to obtain scientific knowledge through observing and measuring objective reality (Philipps 1987).

flexibility and the use of different sources of data (Bryman 1995). So the aim of qualitative research, such as this study, is not to measure the studied phenomenon, but to interpret the social actor's perception of the meanings embedded within social settings.

In any case, the quantitative as well as the qualitative approach have both, strong and weak points. Corresponding to *Easterby et al.* (1997, 2008c) the main strengths of the quantitative methods and positivist approach are that:

*“... they can provide wide coverage of the range of situations; they can be fast and economical; and, particularly when statistics are aggregated from large samples, they may be of considerable relevance to policy decisions. On the debit side, these methods tend to be rather inflexible and artificial; they are not very effective in understanding processes or the significance that people attach to actions; they are not very helpful in generating theories; and because they focus on what is or what has been recently, they make it hard for the policy-maker to infer what changes and actions should take place in the future<sup>63</sup>. ..... The strengths and weaknesses of the phenomenological paradigm and associated qualitative methods are fairly complementary”* (Easterby-Smith et al. 1997, p. 32).

Qualitative approaches can thus tell us a lot about the dynamics of organisations and change processes over time, on subjects' perspective on certain issues and so contribute to the evolution of new theories. They can likewise provide deeper insights what causes the outcome of interest, and not just what is correlated with it (Carlile and Christensen 2005). Even though qualitative studies can also be quite consuming in terms of time and resources, and the analysis and interpretation of data may be difficult (Bryman 1995; Easterby-Smith et al. 1997, 2008c) a qualitative research approach seemed in the view of the formulated objectives and research questions of this study justified and the most appropriate and promising.

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<sup>63</sup> In original highlighted in italics.

### 3.5 Theory Building versus Theory Testing

As in any research design, a further choice to be made was whether data or theory should come first (Philipps and Pugh 1987; Easterby-Smith et al. 1997, 2008c). Theory<sup>64</sup> must come before data, if the purpose of the research is to test or expand an existing theory. The data must come first if the researcher seeks to build theory that is particularly reflected in the concept of grounded theory (Glaser and Strauss 1967). A theory-building approach is more advisable if the problem is not well researched or understood and especially if the phenomena under investigation cannot be understood apart from their social context. The orientation towards theory is again linked to corresponding research logic, i.e. theory testing to a deductive approach (= a generalisation is applied to new specific cases). or theory-building to an inductive approach (= specific case leads to generalisation). Whereas theory-testing relies mainly on questionnaires, surveys, or simulations (Snow and Thomas 1994), the case study is in accordance with *Eisenhardt* (1989) the main research tool for building theories.

It has already been stated as a result of the literature review that very little is known about the organisational learning of the top management. Reference has also been made to lacking theories, gaps in the literature and lacking empirical evidence capable of depicting the methods, outcomes, drivers and barriers or other aspects of the organisational learning of the top management. Accordingly, for the purpose of this research the aim was to make an effort to generate a theory capable of filling a gap in the literature.

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<sup>64</sup> Theory building and theory testing correspond to an inductive or deductive research approach.

### **3.6 Selection of the Research Design**

The next decision that had to be made was the selection of an appropriate research design. The discussion in the previous section on theory-building versus theory-testing suggested applying a case study approach.

This is likewise supported by *Yin* (1994). According to *Yin* (1994) the selection of an appropriate research strategy or design depends in principle on three basic conditions:

The type of research questions, the extent of control the researcher has over behavioral events, and the degree of focus on contemporary as opposed to historical events.

As formulated and derived from the literature review, this study addresses “what”, “how” and “why”-questions whereas the most important research questions are “what” and “why”-questions. Corresponding to *Yin* (1994) these questions are likely to favour the use of case studies, experiments or histories. Histories, however, were not applicable as this study focuses on contemporary events. And finally experiments were not an option, as the researcher had no control over behavioral events. Hence, for this study a case study approach was applied.

### **3.7 Doing Case Study Research**

#### **3.7.1 Introduction**

Having decided to apply a case study approach it was important to make further choices around the design of the case study. This required being aware of strong and weak points, the opportunities and threats of doing case study research in order to maximise the quality of the study.

In this section on doing case study research, the aim and features of case study research will be discussed in a first step. This will be followed by a discussion of the selection and design of a case study, and a consideration of the issues of validity, reliability and generalisability for qualitative case studies.

### 3.7.2 The Aim and Features of Case Study Research

The case study research design entails the detailed examination of either a single or multiple cases on numerous levels of analysis (e.g. industry and firm) (Yin 1994). The objectives of case study research are varied (cf. Eisenhardt 1989; Eisenhardt and Graebner 2007; Yin 1994; Bryman 1995): Case studies can be of descriptive, explanatory or exploratory nature. They can be used to explore new research areas and to provide an understanding of areas of organisational functioning that are not yet well-documented and not easy to access. They can likewise be used for theory testing or to allow findings from other studies to be confirmed. And finally case studies can be used to generate new insights that are useful for building theory. However, according to *Bryman* it is not the objective of case studies “... to infer the findings from the sample to a population, but to engender patterns and linkages of theoretical importance” (Bryman 1995, p. 173).

In general, an organisation or a department within an organisation is considered as constituting a case (Bryman 1995). A strong emphasis is put on context and process (→ time), which provides a frame of reference for the researcher and reader to interpret events. Whereas most qualitative research is in fact a form of case study<sup>65</sup>, not all case studies consist in qualitative research. They can also comprise quantitative elements.

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<sup>65</sup> In certain respects action research which is most frequently adopted in organisational development can likewise be understood as a special kind of single case study. In action research (annotation: approach developed by *Lewin* (1946) in order to respond to problems in social action and in order to bridge the lack of co-operation between practitioners and researchers) the researcher is seen as part of the change process itself. It is assumed that the best way to learn about the organisation is to try to change it. The role of the researcher contrasts with the usual client – consultant relationship in that those should be involved in the change initiative who will most likely be affected by it. For further references cf. *Dickens and Watkins* (1999).

Thus case studies can be based on either of two distinctive philosophical stances—positivism and phenomenology.

In this study, the use of a case study stems from a phenomenological, and more specifically a social constructionist perspective, linked to the goal of theory building. Analogous to the categorisation by *Snow and Thomas* (1994, p. 466) the main purpose of this thesis lies on the explanatory aspect by establishing relationships among constructs (such as top-level organisational learning and the structuring of the organisation) and providing theoretical rationales for observed relationships.

Further choices made around the selection and design of the case study will be presented and discussed in the following section.

### **3.7.3 Case Study Selection and Design**

Having decided to follow a case study approach a series of new questions were raised such as: How many cases to select?, How many levels of analysis?, Should a longitudinal study be carried out or should it focus on a short period of time? Which cases to select?, Why choosing a particular case? etc.

According to *Yin* (1994), a primary decision to be made with regard to the design of the case study was whether a single case or multiple cases should be used. A second decision concerned the unit of analysis.

With regard to the first question, there is a controversial and partly even emotional discussion in the literature (see Eisenhardt 1989; Dyer and Wilkins 1991; Eisenhardt



1991). In recent years the number of multi-case studies<sup>66</sup> has increased, which partly goes back to the criticism of a limited generalisability (see also section 3.7.5) of the results of studies of a single or small number of cases (Bryman and Bell 2003; Bryman 1995). *Eisenhardt* (1989) argues, for instance, that with fewer than four cases, it is often difficult to generate strong theory, and its empirical grounding would more likely to be unconvincing, unless the case has several mini-cases within it.

In contrast to that *Pettigrew* (1985b), argues that these disadvantages can be overcome by longitudinal studies of change processes with single or a small number of cases such as he did with his study on organisational change in ICI (*Pettigrew* 1985a)<sup>67</sup>. *Dyer* and *Wilkins* (1991) even consider single-case studies superior to multiple cases for creating high-quality theory and underline the strong points of the so-called 'classic studies' that are single case studies<sup>68</sup>. They argue that classical single-case studies lead researchers to see new theoretical relationships and to question old ones. Multi case studies would tend to neglect the more tacit and less obvious aspects of the setting under investigation. As a result they would more likely provide a distorted description of the underlying case and its dynamics. Within the scope of the selection of the case study design they consider the most critical trade-off for the researcher between the deep single case study with strong contextual insights in a particular social setting and surface, multi-case studies and their benefits of comparative insights.

Likewise, *Yin* (1994) considers a single-case study as an appropriate and justified design, if ...

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<sup>66</sup> It has to be noted that multi case studies can require extensive resources and time beyond the means of a single researcher (*Yin* 1994).

<sup>67</sup> This is why *Easterby-Smith et al.* (1997) points out that this is essentially the choice between cross-sectional and longitudinal design.

<sup>68</sup> They argue that the classic case study approach has been extremely powerful because these authors have described general phenomena so well that others have little difficulty seeing the same phenomena in their own experience and research.

- the case represents a critical case in testing, i.e. confirming, challenging, or extending a well-formulated theory,
- the case represents an extreme or unique case<sup>69</sup>.
- the case is the revelatory case. This is the case when a researcher gets the opportunity to investigate a phenomenon that was previously inaccessible to scientific research.

A second choice with regard to the design of the case study is whether one or more than one unit of analysis should be involved, i.e. whether the case study should follow a holistic or embedded approach (Yin 1994). Holistic means that only the global nature of an organisation will be examined; embedded means that within a single case also sub-units or different levels of the organisation will be considered. The latter approach can frequently be observed in classic case studies.

Again, there are advantages and disadvantages to both approaches (Yin 1994). The strong points of the holistic case studies are the weak points of the embedded ones and the other way round. A holistic case study is then favourable when the theory underlying the case study is itself holistic in nature or simply when no reasonable sub-units can be defined. A holistic approach risks, however, being conducted at an abstract level and overlooking unsuspected slippages that lead to changes, which cause the original research design to be no longer appropriate for the research questions. Embedded studies can also be unfavourable when the study focuses only on the sub-unit level and fails to return to the larger unit of analysis.

On top of this general discussion on case study design there were some particular issues in organisational learning research that had to be taken into account with regard to the

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<sup>69</sup> Just the same *Pettigrew* (1998).

selection of an appropriate case study design. These will now be presented and discussed in more detail.

#### **3.7.4 Specific Issues Concerning Research on Top-Level Organisational Learning**

*Antonacopoulou* already highlighted within the scope of her work in the field of managerial learning that there are—considering that learning is as much conscious as it is unconscious—a number of epistemological and ontological challenges to overcome (*Antonacopoulou* 2002). A comparable challenge was observed in the field of strategic management, which represents a further important source of research in the field of organisational learning. One recent development in the field of strategic management is the integration of the resource-based view of the firm (*Wernerfelt* 1984; *Barney* 1991), which is a difficult theory to research and test empirically. Just as learning is a conscious and unconscious process, it is difficult to measure resources that are unique, idiosyncratic, and sometimes even intangible or tacit. However, these intangible resources such as e.g. the firm's unique resource of strategic leaders (*Hoskisson et al.* 1999), management capabilities or certain knowledge of how to run a business are the primary source of sustainable competitive advantage (*Hitt et al.* 1998). This raised some methodological issues and questions, which will be dealt with successively in this section:

- . How—if at all—can organisational learning at top management level be observed or demonstrated? How can intangible capabilities/tacit knowledge be observed? And what are potential implications for the research design?
- How can the quality and effectiveness of learning be evaluated? And which consequences for the design of research in this field go along with that?

### 3.7.4.1 Doing Research on Organisational Learning

The first question addresses a fundamental problem of doing research in the field of organisational learning. It derives from the fact that the learning process<sup>70</sup> itself cannot be observed and that it is impossible to see cognition taking place in the actions of the organisations. On top of that the results of organisational learning are not always explicit but often implicit and embedded in the organisation. *Baumard* (1999) tried to tackle the problem how the 'non-expressed' could be investigated. He came to the conclusion that it is not possible and useful to force tacit knowledge into destructive explicitations and that every methodology will remain imperfect (*Baumard* 1999, p. 229). *Giddens* (1984) and *Layder* (1994) propose focussing on observable human action and to come back from that to agent and structure-related aspects. *Spender* (1989), however, contended that industries are idiosyncratic because the tacit knowledge they convey is not accessible from without, and that there is a danger in wanting to transpose to all industry what one has been able to observe in one. *Morin* (1986, p. 205) put it another way when arguing that the knowledge of physical things presupposes belonging to the physical world; knowledge of living phenomena presupposes belonging to the biological; knowledge of cultural phenomena presupposes belonging to a culture. When having to deal with intangible resources or tacit knowledge *Hitt et al.* (1998) therefore pleaded for a small sample study<sup>71</sup>:

*"[T]he idiosyncratic nature of management capabilities makes multi-industry studies difficult, because operationalization of resources must be specific to the industry or even the firm"* (*Hitt et al.* 1998, p. 13).

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<sup>70</sup> Processes can also be considered as „encoded knowledge“(Nelson and Winter 1982; Blackler 1995).

<sup>71</sup> Empirical testing of the resource-based view within the scope of large sample studies as they were often used in the field of strategic management before would therefore not be appropriate. For the same reasons also other disciplines in the field of organisational learning such as management research cannot put forward an universal repertoire of models of collective action (*Hatchuel* 2005).

On the basis of this discussion, despite the less encouraging view of *Baumard* (see above) and taking into account that it would not be possible to completely escape imperfection some methodological assumptions/decisions were made which should help to partly overcome the problem and which had an important impact on the design of the case study:

Following *Morin* (1986), it is necessary to belong to the world that should be observed. And *Spender* (1989) argued that the tacit dimension would not be accessible from without. Likewise *Dyer* and *Wilkins* (1991) underlined the strength of *Dalton's* approach in his classic case study who 'went native' to gather his data:

*"The aim [of the researcher] is to get as close as possible to the world of managers [the focus of Dalton's study] and to interpret this world and its problems from the inside... ....we wish to describe both unique and typical experiences and events as bases for theory that is developed and related to other studies (Dalton 1959)". (Dyer and Wilkins 1991, pp. 614-615)*

This led to the conclusion that a strong involvement of the researcher in the phenomena being observed, both in terms of of an active work role in the organisation as well as tenure in the organisation, would be indispensable.

It could be assumed that the proximity to the observed research subjects—either as a covert or full participant observer (Bryman 1995, p. 143)—, would be a definite advantage with regard to the unconscious or tacit dimension of learning and knowledge. At that time, the researcher had already worked for several years for Deutsche Telekom and it seemed promising that this long term involvement—based on her own 'socialisation' in the organisation—would be useful to better deal with the singularity of the industry, and with the 'non-expressed' (Baumard 1999) e.g. by a better understanding or by means of targeted questioning, confrontation, etc.. On the other hand, however, the required strong personal involvement in the organisation meant to remain modest with regard to the sampling of this study. This meant that under these conditions only one case company,

Deutsche Telekom, could be studied. At the same time it corresponded to *Spender* and *Hitt et al.* (see above) in being necessary to focus on the industry or even the firm due to and depending on the idiosyncratic nature of management capabilities. On top of that, the researcher considered that Deutsche Telekom is a unique, revelatory case in that it is the only telecommunications company in Germany that had to manage the transition from a former state-owned public authority managed by civil servants to a private competitive company<sup>72</sup>. Hence, it seemed not only an obligation but also a necessity to focus on a single case company, which is DT group and its preceding organisations.

Furthermore, the decision was made to cope with this tacit dimension of the learning process and results by adopting a common assertion in the literature that organisational learning has taken place when actions by organisationally key individuals such as top managers that are understood to entail learning are followed by observable changes in the organisation's patterns of behavior (Miles and Randolph 1981; Giddens 1984; Kammel 2000)<sup>73</sup>. Corresponding to the discussion in the literature review, these observable changes imply above all changes of the formal structuring of the organization or the top management. Consequently this single case study had to include different levels of analysis: the top management and its composition and observable changes of the structuring of the group.

#### **3.7.4.2 Effectiveness of Organisational Learning**

The second important methodological question that was raised above concerns the evaluation of the quality and effectiveness of organisational learning. This question lies in

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<sup>72</sup> In addition it has to be beared in mind that Germany was in comparison with e.g. other European countries or the United States relatively late with regard to the deregulation and liberalisation of the telecommunications market.

<sup>73</sup> *Miles and Randolph* (1981, p. 50) defines organisational learning as individuals' insights reflected "in the structural elements and outcomes of the organization itself".

the tradition of the studies of organisational effectiveness. Namely despite the tendency for organisational effectiveness (OE) to be one of the most central concepts in the field of organisation studies *Bryman* states “... an irritation with the fruits of decades of research which has led to calls for the abandonment of OE studies” (Bryman 1995, p. 233). Some of the chief sources of disillusionment with this research go back to the questions: Who evaluates? And what are the criteria of effectiveness? Or to put it in another way : there are obviously no objective but only social constructed measures for quality and effectiveness. *Bryman* (1995) argues that different stakeholders in the organisation, such as shareholders, top managers, customers, etc. may have different conceptions or models of an organisation’s goals and criteria for its effectiveness. What is considered effective by the top management, does not necessarily apply to shareholders, employees or another group.

On top of that these goals might be idiosyncratic for a specific industry or firm and therefore of limited generalisability. This means that there is in general no objective measure for effectiveness, but that it is socially constructed. This means in turn that the evaluation of the quality and effectiveness of organisational learning differs depending on the individual perspectives on—and subjective goals and criteria for effectiveness. So a series of general, industry- or firm-specific, group/team-specific and individual factors exert an influence on this evaluation process.

One observable special factor in the organisational learning literature is a widespread optimistic view on the results of organisational learning. Organisational learning is considered as positive, linked to improvement (Huysman 1999), as something that creates “useful” knowledge (Prange 1999)<sup>74</sup>. So it was sometimes neglected or even

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<sup>74</sup> The learning curve theory (Thurstone 1919; Wright 1936; Ascher 1965; Epple, Argote et al. 1991) as one of the first contributions to organisational learning, already assumed that learning results in improvement. Data on production costs or working hours are plotted against the cumulative output/performance and a decrease in costs was attributed to learning that takes place every time the worker repeats the task.

ignored that organisational learning does not produce necessarily positive outcomes (Dodgson 1993; Levinthal and March 1993) and that not all improvements are resulting from learning processes<sup>75</sup>. As to *March* (1990) organisational learning should therefore not be seen as „...*following a path of greater and greater elaboration, beauty, civility or fit with the environment. The essential element is not that development leads to higher and higher states but that it inexorably leads somewhere*“ (March 1990, p. 40).

Likewise learning through experience does not produce exclusively positive results. Experiences are a positive thing, if and when they contribute to the resolution of problems. However, there is also a risk of permanently repeating the same mistakes. The quantity or time of specific experiences does not mandatorily positively correlate with the quality of these experiences. In a strategic context experience is, according to *Levinthal and March*, „... *often a poor teacher, being typically quite meager relative to the complex and changing nature of the world in which learning is taking place. Many of the same cognitive limits that constrain rationality also constrain learning*“ (Levinthal and March 1993, p. 96).

Against this background *Locke and Jain* (1995) claim that researchers need to move away from a conception of organisational learning as an ‘efficient’ instrument of organisational change to an appreciation of its possible ‘inefficiencies’. And *Huysman* (1999) recommends to the contributors in the field of organisational learning to treat the phenomenon to a greater extent than at present as a process of which the outcomes can be either positive or equally negative<sup>76</sup>.

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<sup>75</sup> They can as well be attributed to e.g. external influences. On top of that not in all organisations a high learning capability, problem resolution skills, or the use of diverse sources of learning and knowledge bases can be assumed and taken for granted.

<sup>76</sup> The negative aspects and limits of learning can be observed in many ways. *Shaw and Perkins* (1994) give some examples: a general incompetence with regard to the critical reflection and analysis of cause-effects relationships, the transfer and dissemination of knowledge in the organisation, effective actions (i.e. lacking experimentation, unsuccessful establishment of projects). Often complexity and the dynamics of the ambiguous environment are made responsible for these problems of organisational learning.



Beyond that point it has to be taken into account—as already mentioned above—that the evaluation of learning results has to differ depending on different perspectives and interests. Managers for instance often “... seem to be able to reinterpret their objectives or the outcomes in such a way as to make themselves successful even when the shortfall seems quite large (Staw and Ross 1978)” (Levitt and March 1988, p. 522). Virany et al. (1996) identified the same phenomenon of self-serving attributions. Executives tend to take credit for favourable outcomes and blame external forces for unfavourable outcomes (Finkelstein and Hambrick 1996, p. 35). New organisational leaders often define previous outcomes more negatively than are leaders who preceded them (Hedberg 1981). This means that there is a risk in relying just on the espoused theory of managers.

A final important aspect in this regard is that there are in general two outcomes of organisational learning which can be differentiated but which are closely interrelated with each other. The first outcome concerns the organisation’s performance which is in general described by economic key performance indicators such as net revenue, net income, market share, ... etc.. A second outcome concerns the human resources and the development of crucial capabilities and competencies. Corresponding to *Porras and Robertson* these two outcomes affect each other and “... over the long run one cannot improve without the other, and that if an organization has placed great emphasis on one and virtually ignored the other, neither will occur” (Porras and Robertson 1992 p. 740).

With regard to the research design and methodology of the study this discussion illustrates again the need for a qualitative approach in order to grasp the subjects’ point of view. This led to the conclusion that the single case study had to comprise different levels of analysis—especially e.g. the entire top management vs. the top management of certain divisions of DT group—when it comes to the evaluation of the effectiveness of the learning of different groups of top managers (→ embedded single case-study). Here

again, in order to prompt questions or to compare or contrast views on certain issues it was assumed that it could be useful that the researcher worked during his professional career—either as a manager or a consultant—in different parts of DT group, i.e. in all divisions as well as at the headquarters. This permitted the researcher to develop at least a ‘feeling’ for the different ‘sub-cultures’ of the respective divisions. The discussion above illustrates likewise some potential traps, potential criticisms and concerns, which mainly concern the role of the researcher. He has to carry out the case study rigorously (Yin 1994) and to be aware of his own potential biases or the biases of some of the research subjects in order to avoid their exerting an influence on the direction of the research project. The strong involvement of the researcher in the organisation might on top of that raise some ethical issues, which will be discussed in a separate section.

Further concerns about case study research resulting from the quality of case study research will now be discussed in the following section.

### **3.7.5 Validity, Reliability, Generalisability and the Issue of Triangulation**

Having made a decision on the case study design it was important to identify potential risks with regard to the quality of the case study design and to possibly develop targeted strategies for this study to cope with them.

Potential risks could lie in the validity, reliability and/or generalisability of the case study.

First, it has to be pointed out that the use of reliability and validity is common in quantitative research, which goes back to the positivist research paradigm. In general, quantitative research “... leads us to regard the world as made up of observable, measurable facts” (Glesne and Peshkin 1992, p. 6). This raises the question of validity and reliability, i.e. the question if the measuring instrument measures what it is supposed

to measure (→ accuracy) and if the results can be reproduced under similar methodology<sup>77</sup> (→ replicability, repeatability).

However, due to the different nature of qualitative research (see table 5) qualitative researchers claim to reconsider the concepts of validity and reliability with regard to qualitative research (Golafshani 2003).

	<b>Quantitative Research</b>	<b>Qualitative Research</b>
<b>Philosophical nature of the paradigm</b>	Positivism:  “... leads us to regard the world as made up of observable, measurable facts” (Glesne and Peshkin 1992, p. 6).	Phenomenology:  Seeks to understand phenomena in context-specific settings
<b>Researchers seek...</b>	Causal determination, prediction and generalisation of findings	Illumination, understanding, and extrapolation to similar situations.
<b>Research methods like interviews and observations are...</b>	supplementary	dominant
<b>Role of the researcher</b>	distant	involved

Source: following Golafshani (2003)

Table 5: Differentiation Qualitative versus Quantitative Research

In agreement with *Golafshani* (2003), both, quantitative and qualitative researchers need to demonstrate that their studies are credible. While in quantitative research credibility depends on the instrument construction, in qualitative research “... *the researcher is the instrument*” (Patton 2001). Hence, validity and reliability cannot be viewed separately in qualitative research. They are rather “... *conceptualised as trustworthiness, rigor and quality in qualitative paradigm* “ (Golafshani 2003, p. 604). There is strong linkage between trustworthiness, rigour and quality and generalisability. If trustworthiness, rigour

<sup>77</sup> This means that the research design or instrument ensures replicability or repeatability of the results.

and quality can be maximised it may lead to 'high quality qualitative research' and so to generalisability (Stenbacka 2001). Generalisability can be described—corresponding to *Miles and Huberman* (1994, p. 279)—as transferability to other contexts or according to *Easterby-Smith et al.* (1997, 2008c), generalisability describes how likely it is that theories generated in one setting will also apply in another setting.

It was already mentioned before that limited generalisability represents one of the most important criticisms of single case studies (Eisenhardt 1989). A strategy that aims at overcoming the weakness of the problems that come from single method, single-observer, single-theory studies and intrinsic biases in theory-building research is triangulation. Corresponding to *Denzin and Lincoln* (1998) four basic types of triangulation can be differentiated. They can again be combined to multiple triangulation<sup>78</sup> (Patton 2001):

- Triangulation by data source, involving time, space, places and persons,
- Investigator triangulation, which consist of the use of multiple, rather than single researchers,
- Theory triangulation, which consists of using more than one theoretical scheme in the interpretation of the phenomenon,
- Methodological triangulation, which involves using more than one method and may consist of within-method or between-method strategies

Often the purpose of triangulation in specific contexts is to obtain confirmation of findings through convergence of different perspectives (Creswell and Miller 2000). The point at which the perspectives converge is seen to represent reality<sup>79</sup>. As far as research on

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<sup>78</sup> This means that the researcher combines in one investigation multiple observers, theoretical perspectives, sources of data, or methodologies.

<sup>79</sup> *Miles and Huberman* (1994) compare triangulation with the *modus operandi* approach used by detectives who amass different exhibits such as fingerprints, eyewitness accounts, ... etc. in order to find somebody guilty.

TLOL is concerned, this is particularly relevant. As the top managers themselves could be part of the problem and e.g. not be aware of learning needs etc., it would be dangerous to merely rely on the espoused theory of top managers (e.g. interviews). According to *Miles and Huberman* (1994), triangulation is most powerful when triangulation sources are picked that complement each other due to different biases and strong points. These different sources—for instance of data—should lead to the replication of the finding. In a constructivist approach triangulation, e.g. by the use of multiple methods, will lead to more valid and reliable multiple and diverse constructed realities (Johnson 1997). However, contradictory results can not only produce multiple context-related explanations but also bring up important problems e.g. question design, as well as fundamental issues surrounding researcher understanding of a topic.

A further way to increase the researcher's trustfulness of a proposition about some social phenomenon and to eliminate bias is by 'respondent validation'. In the latter case researchers ask research subjects for feedback on some of their findings (Bryman 1995; Bryman and Bell 2003) which can help to minimise the interpretation problem. This presupposes again the researcher is aware that the case study method is concerned basically with his interpretation of the management's signification of events.

With regard to this single case study this discussion had several implications: First, based on the argument that 'the researcher is the instrument' (Patton 2001), it was decided to include a separate section in the methodology chapter on doing research as an internal which comprises some information about the professional background of the researcher in and outside of DT. The objective is to provide the reader at least with an idea about the role of the researcher in the organisation and how the researcher tried to avoid or at least minimise bias and the risks when doing research as an internal. As mentioned before, understanding organisational reality means seeing through the eyes of one's subjects (i.e.

members of the organisation). However, it must be avoided—e.g. by means of respondent validation or verbatim quotations (Bryman 1995)—that this is—as argued by Bryman—“*..ironically a phrase frequently used by qualitative researchers to describe their point of orientation*” (Bryman 1995, p. 140). Secondly, this discussion had an important impact on the selection and use of concrete research methods. In the view of the single case study design the choice was made to use multiple triangulation—i.e. different sources of data and different research methods—as an appropriate and indispensable means to obtain ‘credibility’ and to deal with the problem of generalisability.

### **3.8 Data Collection**

#### **3.8.1 Introduction**

In this section data collection will be considered in more detail. The selection of research methods, the timing of data collection as well as the research methods will be outlined. Likewise the research cohort will be defined in this section.

#### **3.8.2 Selection of Research Methods**

As stated above, case studies can be based on either of two distinctive philosophical stances—positivism and phenomenology. So they can comprise qualitative as well quantitative elements and use the whole array of research methods such as questionnaires, surveys, unstructured and structured interviews, participant observation, simulation, documentation, archival sources of data, etc. Ultimately, however, the selection of the methods for data collection depends on the research focus and the defined research questions (Eisenhardt 1989; Yin 1994; Easterby-Smith et al. 1997, 2008c).

With regard to this qualitative study, a research method could then be considered as appropriate when it permitted coping with the still diffuse and complex concepts of managerial work and learning and its strong reference to context. The objective of data collection was to gather information about a series of different issues such as about the top managers themselves—about who is considered a top manager, their professional and demographic backgrounds, etc. Furthermore it was important to gain an understanding of the personal views of top managers on top-level organisational learning and their potentially different conceptions about, e.g. the deployed methods for TLOL, the outcomes or the effectiveness of TLOL. In doing so it had to be taken into consideration—as described in the literature review (see section 2.4.2)—that for top managers there are no learning problems per se but only business problems, that top managers do often not want to be considered as learners and prefer to talk about business problems which need to be solved (Baldwin and Lawson 1995). Hence, not all top managers will want to talk about their own learning or learning will be ‘hidden’ in stories they tell about business problems.

Derived from the research questions the research method had to approach organisational learning at top level as a phenomenon situated in executive actions and the resulting structuring of the organisation. So details about how the structuring or formal organisation of the group evolved including data on all large OD-initiatives were necessary.

When applying these qualitative research methods the researcher had in turn to be sensitive and skilled enough not only to understand how top managers construct the meaning and significance of certain situations or issues with regard to TLOL but also to help them to reflect upon or question their own practices and explore their own beliefs (Antonacopoulou 2002). So social interaction between the researcher and the research subjects was required.

Based on that it is not surprising that interviews and observation revealed as the prevalent research methods of qualitative studies on managerial or executive learning respectively (Richter 1999; Antonacopoulou 2002) or managerial work (Stewart 1982; Kotter 1982). Whereas the very early studies (Carlson 1951; Stewart 1967) mainly focused on “what” questions, the later studies concentrated more and more on “how” and “why” questions concerning executive work and learning and so made use of more flexible research methods (see table below) such as interviews and observation. Depending on the research questions—these studies were sometimes complemented by another research method.

<b>Author, year</b>	<b>Methods</b>
<i>Carlson</i> (1951)	Diaries <sup>80</sup>
<i>Stewart</i> (1967)	Diaries
<i>Mintzberg</i> (1973)	Observation, Interviews
<i>Stewart</i> (1982)	Observation, Interviews
<i>Kotter</i> (1982)	Questionnaires, observations, documentation (diaries), interviews
<i>Richter</i> (1999)	Interviews
<i>Antonacopoulou</i> (2002)	Interviews, observation, questionnaires, documentation
<i>Cahen</i> (2008)	Interviews

Table 6: Qualitative Studies: Research Methods on “Managerial Work and Learning”

This suggested again using interviews for the purpose of this study as the core element of the research methodology. However, it seemed indispensable not to focus only on interviews. As described in the previous section, theory-building researchers typically

<sup>80</sup> Managers observed their own behaviour over a longer period of time and wrote down details about their activities (content, location, duration, participants) in standardised forms (diaries).



have to combine and apply multiple research methodologies in the study of the same phenomenon in order to overcome the weakness, intrinsic biases and the problems that come from single case studies and to deal with potential problems of interpretation (→ triangulation). So, in order to further validate the data of the interviews and compensate for potential weak points of interviews as a research method (see table below) and to gather more information about DT's evolution it was decided to use documentation or archival sources and observation as further research methods. It was assumed that this would simultaneously contribute to a better understanding of the impact of the learning context on TLOL and vice versa. So those research methods were identified and used for this study that are, according to *Bryman (1995)*—typically associated with qualitative research.

<b>Source of Evidence</b>	<b>Strengths</b>	<b>Weaknesses</b>
<b>Documentation</b>	<ul style="list-style-type: none"> <li>• stable—can be reviewed repeatedly</li> <li>• unobstrusive—not created as a result of the case study</li> <li>• exact—contains exact names, references, and details of an event</li> <li>• broad coverage—long span of time, many events, and many settings</li> </ul>	<ul style="list-style-type: none"> <li>• retrievability—can be low</li> <li>• biased selectivity, if collection is incomplete</li> <li>• reporting bias—reflects (unknown) bias of author</li> <li>• access—may be deliberately blocked</li> </ul>
<b>Archival Records</b>	<ul style="list-style-type: none"> <li>• <i>(Same as above for documentation)</i></li> <li>• precise and quantitative</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(Same as above for documentation)</i></li> <li>• accessibility due to privacy reasons</li> </ul>
<b>Interviews</b>	<ul style="list-style-type: none"> <li>• targeted—focuses directly on case study topic</li> <li>• insightful—provides perceived causal inferences</li> </ul>	<ul style="list-style-type: none"> <li>• bias due to poorly constructed questions</li> <li>• response bias</li> <li>• inaccuracies due to poor recall</li> <li>• reflexivity—interviewee gives what interviewer wants to hear</li> </ul>

<b>Direct Observations</b>	<ul style="list-style-type: none"> <li>• reality—covers events in real time</li> </ul>	<ul style="list-style-type: none"> <li>• time-consuming</li> </ul>
<b>Participant Observation</b>	<ul style="list-style-type: none"> <li>• <i>(Same as above for direct observations)</i></li> <li>• insightful into interpersonal behavior and motives</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(Same as above for direct observations)</i></li> <li>• bias due to investigator's manipulation of events</li> </ul>
<b>Physical Artifacts</b>	<ul style="list-style-type: none"> <li>• insightful into cultural features</li> <li>• insightful into technical operations</li> </ul>	<ul style="list-style-type: none"> <li>• selectivity</li> <li>• availability</li> </ul>

Source: (Yin 1994, p. 80)

Table 7: Six Sources of Evidence: Strengths and Weaknesses

Following Yin's recommendation (1994), in preparation of the data collection and with a view to data analysis, a computer database was implemented.

Each method of data collection of this study as well as the precise application of the research method will be described in more detail in the following sections. It will be complemented by a section on the boundaries and limitations of the research methodology.

### 3.8.3 Timing of Data Collection

Having defined the research methods it will now be described in more detail how data were collected. Data were collected in four main phases over the entire duration of this study (1998 – 2003).

The first phase of data collection comprised of an analysis of the organisation using mainly documentation and archival sources. This review provided valuable insights into how DT was organised and managed before and after the privatisation of the group and liberalisation of the telecommunications market in Germany.

The second phase of data collection (1998 – 2000) consisted mainly of observation. The researcher was involved as a consultant in a series of group-wide OD-initiatives (here mainly the new alignment of customer divisions as well as sub-projects within the scope of the establishment of the 4-pillar strategy) which included a partly close co-operation with the top management and the participation in numerous management and steering committee meetings which consisted mainly of top managers. In this phase deeper insights could be gained into how strategies were developed and implemented and into how a new structuring of the organisation was developed and established by DT's top management.

In a third phase of data collection (from 2001 – 2002) the researcher undertook an analysis of DT group's top management development as well as DT's training and development offerings for the group's top managers using mainly documentation (incl. CVs of the top management), observation and a few interviews with HR managers and experts. At that time the researcher headed the top management development department of DT group, which was initially part of DT's corporate university (i.e. "Telekom Business Academy", cf. Storey and Bungartz 2005) and after a restructuring, of the Top Management Human Resources department. Based on this review, valuable insights could be gained into the "institutionalised" part of TLOL and particularly into the significance and meanings that were attributed, e.g. top management training, development tools, career management and succession planning, grading as well as individual learning offerings such as coaching. This phase of data collection was

complemented by a first series of interviews with 35 top managers, which were done between May and August 2002 within the scope of a top management development initiative which was managed by the researcher.

In the fourth and final phase of the data collection, 37 interviews with top managers were conducted between January and March 2003. These interviews provided important data about the significance and meanings DT's top managers attributed to the development and implementation of strategies and DT's organisation and how it evolved over time in relation to the learning of the top management.

These primary data that were collected in four phases were complemented by secondary data that resulted from semi structured interviews. A study on the effectiveness of the group's organisation development initiatives, which was based on 25 interviews with senior managers and members of the corporate board of management and 150 interviews with employees, was carried out by DT group's auditing unit between July and September 2002. This study, which aimed at the evaluation of the effectiveness of past organisation development initiatives and the identification of critical success factors, was carried out completely independent of the researcher's study. Nevertheless the auditing department's study dealt with some issues that were relevant to this research such as co-operation at top level, communication, strategy and decision-making processes, potential conflicts between individual and group objectives at top level, etc. This study of the group's auditing proved very useful with regard to the research project as it permitted to cross-check and validate some of the findings.

More details about data collection and the related research methods will be provided in the following sections on the different research methods. In accordance with the importance of the research method the first section will be dedicated to interviews

followed by documentation and archival sources as well as observation. Prior to that, however, the research cohort will be defined in the next section.

#### **3.8.4 The Top Management as the Research Cohort**

Before the start of data collection it was indispensable to clearly define the research cohort and clearly state the assumptions and criteria that were applied for that purpose. Research on top managers as it is intended for the subject of organisational learning within this study can namely be conducted at multiple levels of analysis:

- *Governance bodies* such as supervisory boards. They are in charge of reviewing major policy choices such as acquisitions, diversification, executive spending or CEO dismissal (for further references see (Finkelstein and Hambrick 1996, p.9).
- The *Chief Executive Officer* who is the executive who has overall responsibility for the conduct and performance of an entire organisation (Finkelstein and Hambrick 1996, p. 7).
- *Top Management Teams* which refer in general to the top three to ten executives at the top of an organisation.
- *Business Unit Heads* holding posts that do not have the scope of responsibility of CEO positions. However they often oversee very large organisations, have considerable autonomy and sometimes are even bestowed such titles as managing director, senior executive vice presidents, CFO, COO, CMO, CIO or CEO of their respective business units.

This study will not focus on governance bodies as part of the top management, as supervisory boards do not belong to the 'inner circle' of the organisation. In Germany, the composition of these governance bodies is defined by law. Furthermore, politics have a sustainable impact on the composition of these boards—in particular in large companies. Within the framework of this study effects of these organs will be considered as exogenous factors.

Even if an important percentage of top management research concentrates on CEOs and top management teams of a very limited size, and even if there is no doubt that these two target groups play an important role, this study is based upon a more complex definition of the top management. Within the framework of the emergence of diversified firms with a corresponding divisionalised, decentralised organisation, numerous general management positions had been created in large companies such as Deutsche Telekom (Chandler 1962). Although these management positions do not correspond to the responsibility of a CEO position, the holders of these positions in divisionalised large organisations, following the suggestion from *Finkelstein and Hambrick (1996)*, very often have important room for manoeuvre in making a decision. They make strategic decisions with far-reaching consequences and launch strategic projects and initiatives. Consequently, the focus on a few single individuals such as the CEO or the top management team in the classical sense, do not do justice to the complexity of very large organisations such as Deutsche Telekom. For the same reasons *Kammel (2000, p. 217)* advocates seeing this classical approach (i.e. focus on CEO and a small top management team) in relative terms. Otherwise there would be a risk not to mirror reality but to expect too much from top managers by viewing them as omniscient and omnipotent. Rather, it is necessary to integrate the first and—even in parts the second—level below the management board, in particular if their units are particularly affected by the decisions that have to be made. This procedure also corresponds to the approach in the field of strategic leadership where some of the most important contributors to the field have carried out their research on the level of Business Unit Heads (Gupta and Govindarajan 1984). *“However, such research has so far been very sparse, probably due to the difficulty of obtaining data as compared to data on CEO’s and others at the corporate level” (Finkelstein and Hambrick 1996, p.8).*

Thus, for the purposes of this study a definition of the top management will be applied that goes beyond the classical, very limited definition. Apart from members of the board of management, core-functions on corporate level and business unit heads on divisional

level of DT group made part of the target group of this study. This raised the question as to the basis on which top managers were or were not assigned to this group of people at the apex of the group's organisation. Corresponding documentation (Benner 1994) showed that in 1994, a grading system (see table 8 below) was implemented for DT's top management that, among other things, served as a basis for the board decision as to whether or not a specific position was assigned to DT's top management.

Criterion	Measures ...
<b>Key performance indicators and impact on business activity</b>	... the scale of the function on the basis of key performance indicators (e.g. EBITDA, EVA, sales, etc.), as well as the impact of this function on business results (e.g. sales: categories starting from < EUR 10 million up to the highest category > EUR 4 billion)
<b>Scope of business activity</b>	... the width, depth and complexity as regards the responsibility of the function, as well as the decision-making competence
<b>Strategic integration</b>	... the influence on the development and establishment of initiatives that have a significant impact on the long-term alignment of the company.
<b>Interaction/Management of interfaces</b>	... what is communicated to whom and how. In this respect, it has to be taken into account that an environment has to be created that fosters the achievement of company objectives.
<b>Complexity of expert and management knowledge</b>	... the required width and depth of the topical knowledge and the use of this knowledge for innovation problem solving. Different complexities of knowledge are differentiated (indicators: nat./internat. professional and management experience in years)

Source: Resources (2002), translation by author

Table 8: Grading System of DT's Top Management (2002)

While according to representatives of the HR department for the top management staff, the criteria apparently did not change since its implementation with the exception of marginal modifications, the weighting of the different criteria varied and depended on the importance that was attached to them by the members of the corporate board of management. In spite of that, there were a series of functions that were part of DT's top management throughout the entire period of the study. The holders of these functions that represent the research cohort of this study are entitled member of the Board of

Management (→ Corporate or divisional level such as CFO, COO, Chief Brand Officer, CMO, CTO, ... etc.), Managing Director (→ important subsidiaries), Chairman of the Board of Management on divisional level (→ CEO), Senior Executive Vice President, Executive Vice President were in the particular focus of this study.

	Case "Head- quarters"	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"	"DT Group"
<b>Definition Top management</b>						
Represents X% of DT's top mgt. staff (as at 08/2002)	27	20	27	6	20	100 (corresponds to 121 top managers)
Corresponding functions/titles of managers assigned to DT's top mgt.	Members of the board of management, senior executive vice president, Managing director					
Corresponding functions/titles of managers assigned to top mgt. of the business	./.	See above plus Executive vice president	See above plus Executive vice president, partly: vice president			./.

Table 9: Top-Management – Key Figures of the Research Cohort in Case Organisation

In this study these different functions are designated as top managers, top executive managers, senior managers, top executives or senior executives. The terms are used interchangeably.

Having defined the research cohort, the following sections will now, as mentioned earlier, concentrate on the research methods.

### 3.8.5 Research Methods

#### 3.8.5.1 Interviews

Interviews are one of the most important sources of data for case studies (Yin 1994). It is recommended to apply interviews when the primary purpose of a research is to develop an understanding of the meanings interviewees attach to certain situations or matters and



so on the constructs that the interviewee uses in order to explain and interpret certain phenomena. However, some choices had to be made concerning the use of interviews. Based on the definition of the top management as the research cohort (see previous section) the interviewees had to be selected and it had to be decided how many interviews had to be made in total. Concerning the latter point it could be found that in existing research a partly very small number of top managers were interviewed or observed (see table below).

<b>Author, year</b>	<b>Sample</b>	<b>Methods</b>
<b>Mintzberg</b> (1973)	5 top managers of 5 american companies	Observation
<b>Stewart</b> (1982)	98 managers of different levels and functions	Observation, Interviews
<b>Kotter</b> (1982)	15 general managers from 9 different companies	Questionnaires, observations, documentation (diaries), interviews
<b>Richter</b> (1999)	7 executives working at 6 different companies located in three countries	one-to-one interviews
<b>Antonacopoulou</b> (2002)	6-8 HR managers of each of the three retail banks  plus 26 individual managers in each of the three retail banks (in total 78).	Interviews, observation, questionnaires, documentation
<b>Cahen</b> (2008)	11 CEOs of CAC 40 companies*	one-to-one interviews

\* CAC 40 = French stock market index, The index represents a capitalization-weighted measure of the 40 most significant values among the 100 highest market caps on the Paris Bourse (now Euronext Paris).

Table 10: Studies on ‘Managerial Work and Learning’ – Samples and Methods

When a larger number of managers were involved in these studies then also other management levels were considered. A further crucial point of the first four studies is that

in most cases individual top managers coming from different companies were involved. Bearing in mind that TLOL is affected by the learning context (see literature review), the researcher concentrated following *Antonacopoulou's* approach on a larger number of top managers in the study.

In total, 72 interviews with 68 top managers (incl. members of the corporate board of management) were made. The top managers interviewed reflected all businesses and functions of DT group. Getting access represented in general no major problem. However, due to time constraints particularly interviews with members of the corporate board of management DT group were postponed several times. One planned interview could ultimately not take place.

Furthermore, secondary data (i.e. a study of the auditing department) based on 25 interviews with senior managers) could be used in order validate the results.

### **Interview Design and Conducting Interviews**

A further important choice to be made concerned the design and more precisely the degree of structure of the interviews. In general, one can differentiate between unstructured, semi-structured and structured interviews. Truly unstructured or depth interviews (Berent 1966) are not guided by a pre-existing interview schedule. The main objective is to get the interviewee “... *talking freely and at length, without interruption. The function of the interviewer is to be an interested and sympathetic listener: She never interrupts, and intervenes only to keep her informant talking*” (Berent 1966, p. 33). The strong point about unstructured or depth-interviews is that a lot can be learned about what motivations, attitudes, views, etc. exist and that researcher bias is eliminated. On the other hand, however, the analysis of the interviews is difficult and it is not sure that the desired information can really be obtained (Bryman 1995; Easterby-Smith et al. 1997, 2008c). Therefore it was decided to use semi-structured interviews, whereby the

researcher used an interview schedule but provided time and space for issues that might be raised by the interviewee. In order to get the interviewees' versions of things mostly open question were used.

Within the scope of this study two series of interviews were carried out. A first series of interviews with 35 senior managers of Deutsche Telekom incl. 5 members of the corporate board of management DT group took place between May and August 2002. Although a series of questions could be added to the interview schedule that were directly derived from this study, and although all interviewees were informed that the collected data will also be used for research purposes, this first series of interviews was primarily conducted for professional reasons within the framework of a top management development project of the top management HR development department of Deutsche Telekom Group which the researcher managed at that time. A short description of the objectives of the interviews and the interview schedule had to be sent to the interviewees prior to the interviews.

All 35 interviews, which lasted between 60 and 90 minutes, were carried out by two interviewers, i.e. the researcher was accompanied by a member of her team. Tape-recording of the interviews was not possible because the interviewees did for confidentiality reasons—without exception—not want to (further references concerning disadvantages of tape recording see (Berent 1966; Easterby-Smith et al. 1997, 2008c). So it was decided that the two interviewers tried to note down as much as possible during the interviews and make a detailed debriefing of each interview just after the interview in order to bring out the most important issues, quotations, observations, etc.

A second series of interviews with 37 top executives of Deutsche Telekom Group (incl. one member of the corporate board of management DT group) was made some time later between January and March 2003 for the purposes of this research only. In contrast to

the first series of interviews, all questions of the interview schedule (see table below) could be covered.

#	Qualitative Question	Objective	Contributes to*		
			RQ 1	RQ 2	RQ 3
<b>General Information</b>					
1	Could you please correct or complete the available personal data and information on your personal professional development (CV ... etc.)?	Learn about the interviewee's professional background and experience in DT group.  Complement missing statistic data (e.g. demographic data, formal education, ...etc.)	X	X	X
<b>Learning needs and approaches to TLOL</b>					
2	What were the most important things to be learned by the top management during DT's transformation since 1990?	Get deeper insights into the "content" of the top management's learning and what triggered learning.		X	X
3	How did DT's top management get hold of required new competencies/knowledge? Which actions did you and/or were taken by the board or your peers precisely? With what results? Please specify.	Pursuit of off-the-job and/or on-the-job learning strategies.  Learn about concrete learning actions/deployed learning methods.  Get to know the rationale for the launch of an initiative.	X	X	X
4	Which DT-internal training offerings for top managers do you know? Which external or internal training offerings did you attend in the last years? How do you evaluate the outcome of such measures with regard to the mentioned learning challenges?	Pursuit of off-the-job and/or on-the-job learning strategies.  Learn about how the effectiveness of top management training is seen by the top management.  Identify barriers and constraints	X		X
5	A large number of key initiatives (see list) were initiated by DT's top management since 1990 in order to drive change.  Which ones were the most challenging initiatives for DT's top management? Why?	Pursuit of off-the-job and/or on-the-job learning strategies.  Get to know the rationale for the launch of an initiative.  Learn about the impact of key initiatives on TLOL and why they	X	X	X

	What were the lessons learned of these projects for DT's top management?	differ from each other.  Identify barriers and constraints of TLOL.			
<b>Composition and behavioural integration of the top management</b>					
6	How would you evaluate today DT's top mgt. regarding a shared understanding of the strategic alignment of DT group and of appropriate means for achieving defined targets? Why?  (Scale between 0 = very poor and 10 = very good).  Please specify.  How did this evolve over time?  How can this be observed in the daily business? Please give examples.	Common approach of the entire top management versus isolated approach of individual top managers        Pursuit of deliberate or emergent strategies.   Involvement of top management in strategy development and implementation	X	X	X
7	How would you evaluate today DT's top mgt. regarding cohesion, mutual support and co-operation? (Scale between 0 = very poor and 10 = very good). How did this evolve over time? How often do you meet with your peers?  Please specify your evaluation.	Common approach of the entire top management versus isolated approach of individual top managers  Get deeper insights on the quality of the relationships between top managers (cohesion versus conflict).	X	X	X
8	What do you think, how did the composition of DT's top management evolve in the last decade? With what effects?	Triangulation with corresponding documentation  Draw conclusions on intensity of external recruitment and acquisitions as well as dismissals and their effects.	X	X	X
9	Which new knowledge came in? Which knowledge got lost? Are there differences between different parts of DT group?	Triangulation with corresponding documentation  Draw conclusions on intensity of external recruitment and acquisitions as well as dismissals and their effects.	X	X	X

<b>Factors that fostered or hindered top-level organisational learning</b>					
10	What helped or hindered DT's top management respectively to adapt to change? Please give examples.	Identify barriers and constraints of TLOL.	X	X	X
<b>Effectiveness of organisational learning at top management level</b>					
11	How is your evaluation of how well DT's top management overall has been in adapting DT to the new market conditions and environment? (Scale from very poor to very good). Please precise.	Get to know how the top managers construed their own reality.  Identify barriers and constraints of TLOL and criteria for effectiveness of learning.		X	X
12	How well did the top management manage its own change?	Get to know how the top managers construed their own reality.  Identify barriers and constraints of TLOL and criteria for effectiveness of learning.			X
13	Which parts of the top management do you think have been better or faster in adapting to change? Why and what made the difference?	Learn more about the specific characteristics of the different learning contexts.  Identify differences in the learning behaviour of different parts of DT's top management.	X	X	X
14	In a nutshell what was your recipe for success in order to master the personal and professional challenges you were confronted with? What could other top managers have made to be more successful? What made top managers fail?	Learn more about how a top manager can adapt himself successfully in an environment of change.  Identify barriers and constraints of TLOL and criteria for effectiveness of learning.	X	X	X
<b>Final statement</b>					
15	Suppose you met the CEO of DT group in the elevator by chance. With a view to tomorrow's challenges of DT's top management he asks you for your recommendations to foster the top managements	Identify lessons learned of DT's top managers with regard to appropriate actions aiming at fostering TLOL.  Verify the role of the CEO for	X	X	X

	competence and performance. He promises to realise the first of your suggestions immediately. What would you propose?	TLOL.			
16	Do you have any last thoughts to add to this interview?	Provide time and space for the interviewee to raise issues which were not mentioned before but should be considered in further interviews.	(X)	(X)	(X)
<b>Methodology</b>					
17	What are from your perspective advantages or disadvantages respectively being interviewed by a DT insider?	Identify opportunities and limitations in doing research as an internal.			
<p>*Legend: RQ (Research Question)</p> <p>RQ 1: What initiatives and methods for top-level organisational learning were deployed? And why?</p> <p>RQ 2: How and why does top-level organisational learning differ at corporate and divisional level?</p> <p>RQ 3: What factors foster or hinder top-level organisational learning, and why?</p>					

Table 11: Interview Schedule – Data Contribution Matrix

Four top executives were interviewed twice i.e. participated in both the first and the second series of interviews. Again, all interviews were conducted by two interviewers and again tape-recording was not possible so that the same approach was taken to deal with this constraint. However, access to the target group was perceptibly easier now. The top managers were interested in the study—also due to the parallel project in the field of management development. The fact that a series of other top managers including members of the corporate board had already been interviewed brought about additional management attention. On average, the interviews of this second series lasted a bit longer—ca. 90 minutes on average, some even longer. Three of the interviewees even called or spoke to the researcher again some time after the interviews because they wanted to add some further details they had forgotten to mention. In order to sharpen up the interviewee's responses, probes as proposed by *Easterby-Smith et al. (1997, p. 80)* were extremely useful.

The interviews of the first and the second series emphasised different aspects of the study. Some of the issues raised in the first series of interviews were discussed again in order to validate these findings of the first interviews and eliminate problems of interpretation. When conducting the interviews, the researcher had to ensure that questions about learning were addressed in a different way, i.e. it was necessary to talk about concrete projects or business problems instead of learning (Baldwin and Lawson 1995).

These primary data were complemented by secondary data that also resulted from semi structured interviews. A particular study on the effectiveness of the group's organisation development initiatives, which was based on 25 interviews with senior managers and members of the corporate board of management and 150 interviews with employees, was carried out by DT group's auditing unit between July and September 2002. The researcher learned about the existence of this study by the auditing department more or less by chance within the scope of an interview with the senior executive vice president of the group's auditing department. He directed his team members who were charged with this study to make a detailed debriefing of this study with the researcher and to provide her with all further information and results of the study that she might need but which were not included in the management summary of this study. In this connection, a former colleague who accompanied this study as a consultant and who was one of the two interviewers provided the researcher with some more in-depth information about the objectives, data collection and analysis as well as the minutes of every interview. Although the study of the auditing department which aimed at the evaluation of the effectiveness of past organisation development initiatives and the identification of critical success factors was carried out completely independent of this research there were a series of overlaps. The study thus revealed, for instance, not only differences in the evaluation of the adaptation of the group between employees and managers but also



between senior managers and members of the board. Likewise, issues concerning co-operation/teamwork at top level, communication, management and remuneration systems, potential conflicts between individual and group objectives at top level were considered and evaluated. These interviews of the group's auditing proved very useful with regard to the research project as it permitted cross-checking and further validation of some of the findings.

### **3.8.5.2 Documentation and Archival Sources**

Documentation and archival sources were relevant with regard to every research question of this case study. It corroborated and augmented the evidence from other data sources (analogous to Yin 1994, p. 81)—here in particular the interviews. Thus, documentation was mainly used in the first phase of data collection—above all in order to gain a better understanding of the historical development and the evolution of the group—but likewise until the end of the data collection process.

Documentation and archival sources were easily accessible by virtue of the internal work role of the researcher. However, due to confidentiality reasons and corresponding to a confidentiality agreement between the researcher and DT, not all data were exploited (such as turnover or remuneration of the top management staff). In agreement with Bryman (1995), it was very important to have a structured approach to data collection and to exclude certain issues at a premature stage as was attempted in this study. Some researchers, particularly many qualitative researchers, face the problem that so much of the field being observed is potential data that there is a problem of knowing what to record (Bryman 1995). Some even feel overwhelmed by data and face masses of data that cannot be handled. The problem is even more complex if a longitudinal study or a complex organisation was chosen for the case study. So having good access to data is not only positive but implies certain risks.

In the face of the rich bases of documentation the most important challenge for the researcher was to differentiate between relevant and non-relevant documentation and to systematise data collection. Therefore a data collection plan was made which mainly differentiated between two different streams of documentation.

Firstly, documentation about DT group (incl. preceding organisations) and important OD initiatives. This documentation comprised above all draft resolutions for the board of management, kick-off and final project presentations to the project steering committee, minutes of management and steering committee meetings, organisation charts, studies, internal newsletters, intranet, etc. Furthermore, elements of the external communication such as articles in newspapers and journals or books edited or published by top managers or consultants of DT.

A second stream of documentation concerned the top management staff. Here in particular the CVs as well as extracts from personal files, lists of names of the members of the top management staff, and the personnel information system and archives of the Top Management Human Resources department could be used. Some data on top managers who left the company (e.g. tenure in the organisation and in the position, functional background) could be extracted from the personnel information system or archives of the Top Management HR department. Further documentation in this stream dealt with established or planned top management development tools, management-by-objectives, ranking, grading and remuneration systems, or training offerings etc..

Concerning documentation on the top management staff, it was—in the face of the rich basis of statistics on DT's staff—surprising that no statistics were available. Furthermore, data concerning the demography of DT group's top management were not available

before 1995 (i.e. privatisation of DT group) and could also not be reconstructed. This suggests that these data obviously had neither been requested before by the CEO or other members of the board of management—in particular HR—nor by the top management human resources department and used as a basis for, for example, systematic top management recruiting, succession or development policy. Therefore statistics (e.g. concerning age, tenure, etc. of the top management staff) had to be developed arduously based on CVs and other sources of information.

### 3.8.5.3 Observation

A further complementary source of data for this study was observation, which was mainly—but not exclusively—used in the second phase of data collection. In principle, one can differentiate between direct observation and participant-observation. Participant-observation (see table below), which has been most frequently used in anthropological or ethnographic studies ((Yin 1994), (Easterby-Smith et al. 1997, 2008c)), is a special form of observation in which the researcher assumes his/her own active role and not only a passive role in the case study situation (Yin 1994).

Type of participant observation	Characteristics	Issues
<b>Covert participant observation</b>	The researcher gains entry to the organisation and observes others without anyone knowing that he or she is a researcher.	<p>No need to negotiate access to the organisation.</p> <p>Removes the problem of “reactivity”.</p> <p>Requires the researcher to assume a work role in the organisation.</p> <p>Raises ethical problems.</p> <p>No ability to use other research methods.</p>

<b>Full participant observation</b>	The researcher is known as a researcher when negotiating entry and when undertaking research..	Requires the researcher to assume a work role in the organisation.
<b>Indirect observation</b>	The researcher is constantly in and around the organisation but does not possess a formal work role in it.	

Source: analogous to: (Bryman 1995), p. 142-146)

Table 12: Types of Participant Observation

The distinction between covert observation and the other two roles can be a matter of degree in this study. Therefore, and even though DT sponsored the research project, it was assumed that most people were not aware that the consultant<sup>81</sup> was at the same time a researcher. So the researcher assumed a role that is close to a covert participant observer.

The main criticism of covert observation is, however, the “*ethically dubious practice*” (Bulmer 1982). Ethical issues will therefore be discussed in a separate section (see section 3.10.6). Potential further problems that can arise from an active role in the organisation are—in contrast to the external observer who remains independent—potential conflicts of interests (Bryman 1995). This might be reflected by a too strong identification of the researcher with the organisation being studied so that the researcher becomes a supporter of the organisation. Conflict of interests can also occur due to

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<sup>81</sup> Annotation: The researcher assumed a role as consultant in phase 2 of data collection.

'professional' objectives of the researcher and sometimes simply for the reason that there is not enough time to raise all questions in a meeting.

In order to minimise ethical problems, and potential biases of the researcher it was therefore decided to use observation only as a method to provide complementary information about a certain topic.

### **3.9 Data Analysis**

This section looks around at some principle issues around the analysis of qualitative case studies. It explains how the data were reduced, displayed, analysed, and reported.

According to *Yin* (1994) and *Eisenhardt* (1989), data analysis is the most important but at the same time most difficult part of the case study research process. *Patton and Appelbaum* (2003) and *Yin* (1994) therefore recommend starting every investigation with a defined analytic strategy. The purpose of this strategy is to contribute to make the researchers understanding of how he is construing theory explicit. This is important because as analysis *proceeds* "... *that construction will—consciously or not—inevitably influence and constrain data collection, data reduction, data display, and the drawing and verification of conclusions*" (Miles and Huberman 1994, p. 434). In the absence of corresponding theoretical propositions or rival explanations—as it is the case for this study—and based upon *Yin's* (2003) suggestion, a descriptive framework for organising the case study was developed. It was derived from the literature and introduced at the end of the literature review (see section 2.8).

The analytic strategy or conceptual framework exerted an important influence on the data analysing process and methods. Based on the positivist and phenomenological approach two main approaches to data analysis can be differentiated: Content analysis and

grounded theory. The most important differences between the two approaches are described in the table below:

<b>Content analysis</b>	<b>Grounded theory</b>
Bitty	Holistic
Go by frequency	Go by feel
Objectivity	Closer to the data, open much longer
Deductive	Inductive
Testing hypotheses	Testing out themes, developing patterns

Source: Easterby-Smith et al. 1997, p. 106.

Table 13: Differences between 'Content Analysis' and 'Grounded Theory'

This study rather conforms with the more open approach to data analysis of grounded theory (Glaser and Strauss 1967). For this reason, an iterative, cyclical process of data analysis was applied to this study.

*Miles and Huberman* (1994, p. 10) proposed qualitative data analysis as consisting of the following three activities that form such an interactive cyclical process (see figure below):

- **Data Reduction:**

This activity refers to the reduction, simplification and transformation of qualitative data through e.g. the selection, summary or paraphrase or the subsumption to a larger pattern.

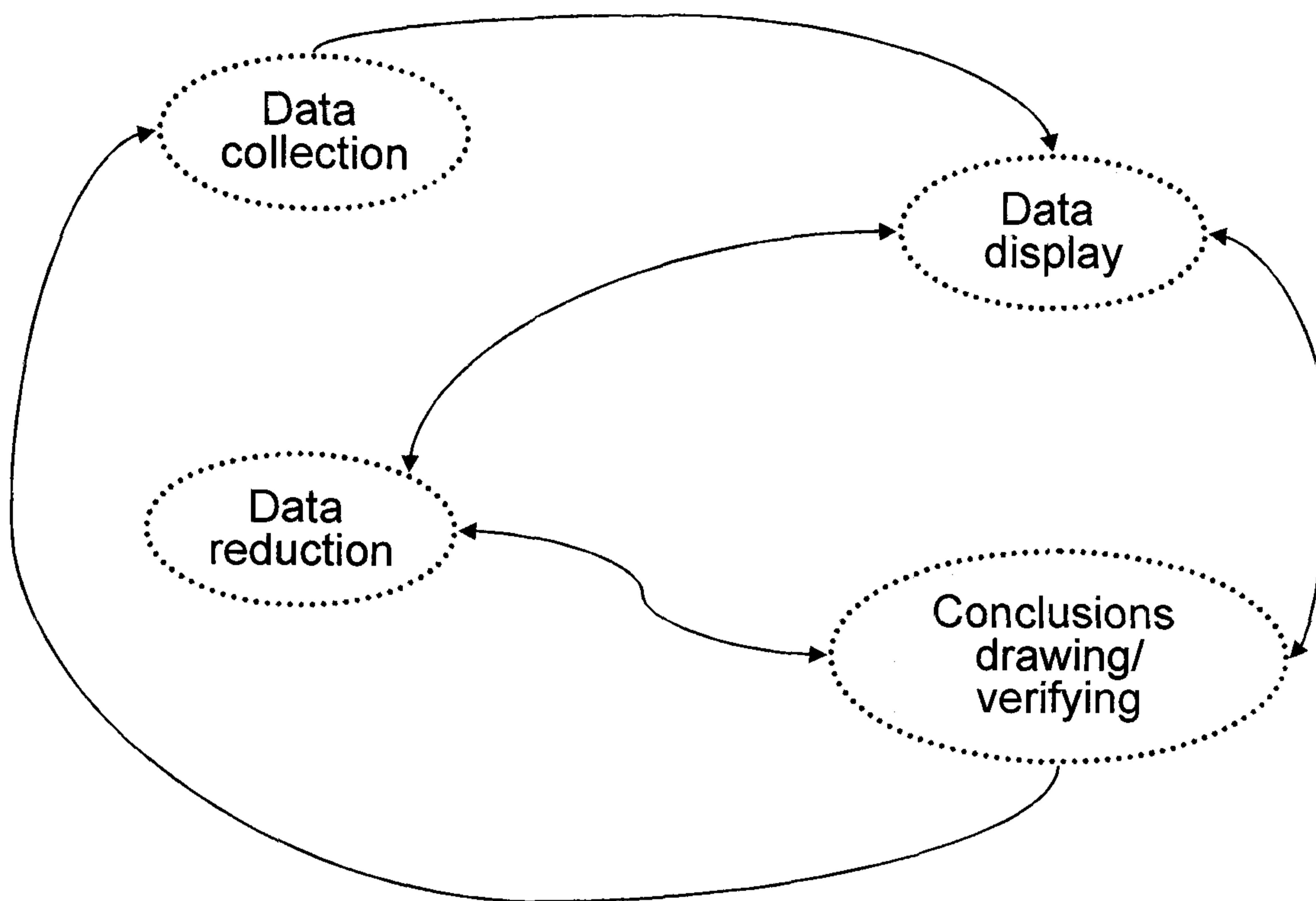
- **Data Display:**

Data are processed into organised, clearly-structured and compressed displays of information that permit the draw of conclusions. In the case of this study, data were mainly displayed as narrative text, tables and graphs.

- **Conclusion Drawing and Verification:**

The researcher draws inferences what things mean, identifies regularities, patterns, explanations, ... etc.

In this view qualitative data analysis is in contrast to quantitative analysis<sup>82</sup> a continuous process.



Source: Miles and Huberman (1994, p. 12)

Figure 3 : Components of Data Analysis: Interactive Model

A similar but more elaborated strategy for management research is proposed by *Easterby-Smith et al.* (1997, p. 108—112), which was therefore applied in this thesis (see table 14 below):

Phase of data analysis	Activity
<b>Familiarisation</b>	Transcripts, filed notes and minutes were re-read again
<b>Reflection</b>	Data were evaluated the in the light of existing research
<b>Conceptualisation</b>	A set of concepts, which seemed to be important for understanding what is going on, were formulated.
<b>Cataloguing concepts</b>	A catalogue of identified concepts was developed. A computer database was established. Concepts were linked to the source of data.

<sup>82</sup> Quantitative data analysis is corresponding to *Miles & Huberman* (1994) usually more sequential.

<b>Recoding</b>	With the help of this linkages to data sources went back to the data again. Concepts were redefined and recoded.
<b>Linkage</b>	Empirical data were linked in an iterative process to the literature; others were asked for comments.
<b>Re-evaluation</b>	In the light of the comments re-evaluate, revise and complete the analysis.

Source: Following Easterby-Smith et al. 1997, p. 108-112.

Table 14: Qualitative Data Analysis

A further choice that had to be made concerned data analysing techniques. Yin (2003) proposes five dominant and three lesser modes of analysis that can be used after data collection—for either single—or multiple case studies:

<b>Modes of analysis</b>	<b>Description</b>
<b>Pattern-Matching</b>	... compares an empirically based pattern with a predicted theoretical hypotheses. If the patterns coincide a causal relationship between theory and empirical knowledge can be assumed.
<b>Explanation-Building</b>	... is a special type of pattern matching but more difficult and a result of a series of iterations. The objective of this technique is to identify causalities
<b>Time-Series Analysis<sup>83</sup></b>	Within the scope of a time-series analysis several incidents are considered in temporal cohesion. The analysis is not limited to chronicles but is focused on, identifies and explains causalities.
<b>Program Logic Models</b>	... corresponds to a combination of pattern-matching and time-series analysis. Incidents are presented in cause-effect chains. The empirically observable incidents are matched with the theoretically predicted effects.
<b>Cross-case synthesis</b>	... is applicable when at least two, better more cases are available for analysis. These cases are compared and contrasted based on a defined objective of analysis.

Table 15: Modes of Data Analysis

The lesser modes of analysis “analyzing embedded units”, “making repeated observations” and “Doing a case survey: Secondary Analysis Across Cases” can only be applied in conjunction with a dominant mode of analysis.

<sup>83</sup> Compare Miles & Huberman 1994, p. 434.



For the available study the following dominant techniques were used: Pattern-Matching, Explanation-Building, Time-Series Analysis. They were complemented by “analyzing embedded units”. As this present study is an embedded cases study within a single organisation, findings were first analysed individually—which helped to establish familiarity with each individual case—and after that across all cases. The cases on the different top management groups were compared in order to search for cross-case patterns. Classes of cases were made, such as centralised versus decentralised top management groups, in order to look for similarities and differences within each and between the different classes of cases. Based upon that, the analysis was re-evaluated, revised and finally completed.

A conceptual framework for data analysis was presented as a result of the literature review in section 2.8. It specifies what was and what was not studied within the scope of this study, when the corresponding analysing techniques were used and will provide guidance through the analysis chapter.

### **3.10 Doing Research as an Internal**

#### **3.10.1 Introduction**

It was shown in the previous sections of the methodology chapter that this study’s underlying research design and methodology is shaped by the phenomenological paradigm. Reality is seen as socially constructed, and so a strong sense of context and process as well as proximity of the researcher to the phenomenon observed are required in order to interpret the social actor’s perception of the meanings embedded within social settings. Especially with reference to some specific issues concerning research on TLOL

(compare e.g. section 3.7.4) it was decided to undertake this study as an internal researcher, i.e. as a full member of the organisation.

Although there are research approaches (e.g. phenomenology or the constructivist approach) which consider the researcher as an integral part of the research process and although there are research constructs (such as e.g. learning or resources) which have a tacit dimension and/or are socially constructed (such as e.g. effectiveness), relatively little attention has been paid so far to the subject of insider academic research (Brannick and Coghlan 2007, p. 59). This despite the enormous potential and strong points of insider research in research areas where subjective interpretation and preunderstanding, i.e. insights from the lived experience, are key to the research process.

This might be explained by that fact that one stream of the existing literature tends to take a rather sceptical view on doing research as an internal, claiming that insider researchers would be blind, too close to the research phenomenon to attain the necessary objectivity and independence for valid research (Morse 1998, Alvesson 2003). In contrast to that it is agreed with proponents of insider academic research (e.g. Brannick and Coghlan, 2007) who come to the conclusion that “... *there is no inherent reason why being native is an issue and that the value of insider research is worth reaffirming*” (Brannick and Coghlan 2007, p. 59). Doing insider academic research rather has to conform—as does traditional research—to the standards of (good) qualitative research, i.e. among other things it is important to critically reflect on the researcher’s identity, experience and values and their impact on the research (Easterby-Smith et al. 2008, p. 420) as well as on the specific dynamics of doing research as an internal. For that reason having acquired an overview of the different roles the researcher held in the case organisation in section 3.10.2, the specific methodological and ethical issues arising from the particular role of an insider researcher and the advantages and disadvantages, opportunities and risks of doing research as an internal will be considered in greater detail in the following sections.

### 3.10.2 The Researcher as the Research Instrument

The discussion about validity, reliability and generalisability (see section 3.7.5) revealed that the quality of this type of studies depends much on the researcher. In order to contribute to the credibility of the researcher a short description of the researcher's roles within and beyond the case organisation of this study is given as well as a brief description of its contribution to the quality of the research (see table 16 below).

Phase of data collection	Period of time	Role of the researcher	Contribution to the quality of the research
	Dec. 1993 – Feb. 1995	Commissioner HR Development in the food industry	Got to know a different company and management culture.
Phase I  (starting from 1998)	Mar. 1995 – Oct. 1998	Commissioner HR & Organisation Development, T-Mobile	Gained deep insights into the business and culture of the mobile division of DT group. Got to know group-wide OD-initiatives and a series of top managers.
Phase II	Nov. 1998 – Feb. 2001	Managing Consultant in the "Change Management" consulting area, In-house Consulting, Deutsche Telekom	Carried out a series of consulting projects—among those some which made part of large OD initiatives at group level. Got deeper insights into DT's divisions (except T-Mobile) and headquarters. Got to know a larger number of top managers from the different businesses and headquarters.
Phase III + Phase IV	Mar. 2001 – Mar. 2003	Head of Top Management Development, Deutsche Telekom	Gained in-depth insights into DT's top management development. Gained access to top managers and the top management HR department.  Attended at that time a training in systemic coaching that comprised an intensive training of interviewing skills.
	Apr. 2003 – present	Director Corporate HR Development of a French company (construction) and managing director HR of one of her subsidiaries	Part of data analysis was made in this phase. The work in a different company in a different cultural context contributed to the reduction of blind spots.

		Since Jan. 2007: Vice President Human Resources and member of management board of the German-speaking business division	Took over a top management position and gained new insights into the role of a top manager
Legend: Active work role within case organisation			

Table 16: The Role of the Researcher

As can be taken from table 16 (see above), the researcher held very different work roles until the completion and final writing-up of this study – mainly in the case organisation, but also after the completion of the empirical part of the study, outside the Deutsche Telekom group. In that connection, it has to be pointed out that the researcher not only held work roles with different proximity to the top management, but mainly such work-roles that are held by the kind of people with whom following *Richter's* (1999, p. 6) suggestion top managers like to be in contact<sup>84</sup>. These work-roles in turn were characterised by differing degrees of independence of the researcher from the case organisation, while enabling the researcher at the same time to take different perspectives on the phenomenon under investigation<sup>85</sup>.

### 3.10.3 The Access Problem

Many researches have to face the problem of getting into organisations (Bryman 1995; Bryman and Bell 2003). Low response rates or lack of general interest in research are difficulties reported by qualitative researchers.

<sup>84</sup> Following *Richter's* (1999, p.6) suggestion top managers have in sensitive situations a definite preference for advice from an 'expert' – either internal (e.g. HR expert), or external (e.g. management consultants).

<sup>85</sup> In this connection, it should be remembered that this study did not pursue an action research approach. In action research (Lewin 1946, Dickens and Watkins 1999, Reason and Bradbury 2001) theory development requires the researcher to have full control over the research project through deliberately planning, taking action and evaluating the actions leading to further planning etc.. This was not the case in this study on TLOL.

In general, primary and secondary access can be differentiated (Brannick and Coghlan 2007). Whereas primary access implies the permission to undertake research and to have access to the organisation, secondary access refers to the ability to get access to specific parts of the organisation (e.g. functional or hierarchical areas) that are relevant to the research. Particular access problems were viewed in management research (Easterby-Smith et al. 1997, 2008c). Busy, fairly tightly structured and controlled, powerful managers at the top of the organisation tend to allow research access only when they see practical—personal or commercial—added value of the research project. And when they allow access, the researcher has to deal with time constraints (e.g. with regard to the duration of interviews).

There are particular advantages and disadvantages to doing qualitative research as an internal. Concerning the access problem, gaining primary access is much easier for an internal research fellow. Having received permission to do research, he/ she can use—depending on the status of the researcher (see Brannick and Coghlan 2007)—all possibilities as a full member of the organisation to gain access to people and material. However, gaining secondary access is a real issue for insider researchers.

In the case of this study—starting at the end of 1998 until the completion of the study—this permission had to be negotiated eight times, thereof seven times within DT group, which also contributed to the long duration of the research project. This was in particular due to major restructurings and a high turnover in the management. Hence, for the internal researcher it might represent an important barrier—in particular in the case of long-term studies and dynamic or short-term oriented organisations. Permanent restructuring, organisational change and personnel turnover might lead to a loss of the sponsorship and the need to find new sources of support. As in this case, it might require an important time investment in order to ensure that the researcher is authorised to undertake the research. Sometimes, it can even be necessary to change jobs if a new superior will neither support nor tolerate the endeavour under any circumstances—as

was the case in one instance during the example at hand. *Brannick and Coghlan* (2007, p. 68) put it this way: *“Negotiating access with superiors is a tricky business...”*.

Official permission, however, is a necessary but not sufficient condition. Gaining access rather depends on the research topic and on the importance that is attached to it by the organisation and those people that are relevant to the research. Gaining access to data means being convincing, i.e. having a clear picture in mind of the objectives of the study and its benefits for the sponsoring organisation and the research subjects and being able to ‘sell’ these advantages of the research<sup>86</sup>. In the particular case of this study, the researcher, in her capacity as the head of DT group’s top management development department, started an initiative in the field of top management development in order to gain top management attention and support. This project and its short-term and mid-term benefits for the organisation and the top managers, as well as the previous work as a consultant, served later on as a door-opener for more far-reaching interviews with top management staff. However, when doing so, the researcher has to remain aware of the resulting (potential) ethical issues and has to deal with them in a professional way (cf. section 3.10.6).

How important it was to clearly explain the contribution of the research to the personal or organisational objectives of top managers can be illustrated by the following quote of a senior executive of DT who participated this study:

*“I let go of a manager who undertook a PhD in the times of the merging of the technical branch offices<sup>87</sup>. Firstly, I was not well informed, and secondly, I asked myself what could be my added value of this research? He was not able to explain that to me and so I didn’t take him for one of the new management positions. Three months later he came across with a doctorate*

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<sup>86</sup> Within the framework of this empirical study it could also be experienced that it is an important driver with regard to gaining access to data if the study not only sounds interesting and promising for the sponsor but also for all members of the organisation who participate in the empirical study.

<sup>87</sup> Within the framework of this project 39 technical branch offices had been transferred to 13 technical branch offices which brought about a substantial reduction of top management positions.

*in his pocket. I asked myself: Did I make a mistake? With regard to me, he was personally disappointed. Thus he got a much better job than the job I could have offered to him. Nevertheless, I think it was the right decision. I mean, it takes a lot of time when you are undertaking a research project and I am expecting my collaborators in management to invest all their time for the company.”*

Despite these constraints, getting access to data is a real strength of internal researchers.

One senior manager of DT group put it in a nutshell:

*“You will speak with a large number of top executives within our group. I suppose that studies with such a large basis of interviews with real top executives are quite rare. Hence, this research must be of particular interest for every university. It is very positive what you are doing and I hope you will share the results of your work with us.”*

This view was supported by a large number of top managers who had been interviewed during the empirical part of the study. And an important number of the interviewees told the researcher that they would not talk to an external researcher. One of these executives stated for instance:

*“I would simply not talk to an external researcher. And I assume you would never have the chance to talk to such a large number of top executives.”*

And another one explained:

*“If you were an external researcher I would have asked you immediately how you can assure data security and confidentiality. I would have never been so open and would not have told you so much about my personal views and experiences. In this case, however, I am not worried.”*

Confidentiality, trust and data privacy represented real issues in this research project. Top managers were particularly sensitive with regard to the confidentiality of information (see

also Easterby-Smith et al. 1997)—either internally or with regard to external bodies—which required particular attention to the collection, recording, use and publishing of obtained data. The sponsorship agreement with the employer (incl. an agreement with the public relations department concerning publications, etc.), which the researcher explained in detail at the beginning of every interview, helped to overcome this barrier<sup>88</sup>.

#### **3.10.4 Lived Experience of the Organisation**

The interpretation of data is also a particular strength of the internal researcher because he/ she forms part of the organisation. Insider researchers can draw on particular knowledge of and experiences within the organisation and so provide important knowledge about what organisations are really like (Brannick and Coghlan 2007). Traditional approaches cannot do this. On the other hand insider researchers are native to the setting and so risk being too close to the research phenomenon, not attaining the necessary objectivity or being blind to certain aspects and so not conforming to the standards of rigorous academic research. This is why there is a stringent necessity for what *Brannick and Coghlan* (2007, p. 60) call a process of reflexive awareness. For the same reason, *Morin* (1986, p. 205) claimed that due to the potential idiosyncracies, the subject who wants to know must, in some way, distance him-/ herself to become his/ her own object of study. Otherwise some things might be taken for granted and considered self-evident. The researcher cannot remain independent<sup>89</sup> from the phenomena being observed and this might have an important impact on the selection (cf. Brannick and Coghlan 2007) and interpretation of data.

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<sup>88</sup> Consequently for an external researcher, it would probably be an advantage to have an internal sponsor even some constraints might remain as one senior manager explains: “As an external researcher you need a sponsor if you want to get access to an organisation. But even with a sponsor it might be difficult. I remember that I once sponsored a research team of the London Business School - it was not easy.”

<sup>89</sup> The traditional assumption in science is that the researcher must be complete independent (Easterby-Smith et al. 1997, p.23).



This lack of independence that is harder to sustain in social science is simultaneously a problem and a virtue:

- A problem where the researcher does not succeed in dissociating him-/ herself from the system and implying theoretical concerns. In addition, there is a risk that insider researchers concentrate on events with which they are already familiar and seek out informants because they know them and their viewpoints on certain issues. They might assume too much and not probe as much as if they were outsiders (Brannick and Coghlan 2007). In order to integrate an external perspective it might therefore be helpful to ask for external supervision, as was done in this study.
- A virtue because the internal researcher speaks and understands the language of his/ her respondents. He/ she knows background stories and is more likely able to assess whether success stories are embellished or not. He/ she is involved in personal networks, knows the structure and routines of the organisation, can attend meetings etc. without drawing too much attention to him-/ herself. He/ she knows more about the informal organisation, unwritten rules and the culture of the organisation.

The latter argument was emphasised in the case of this study by the overwhelming number of senior executives who have been involved in the empirical work. One senior manager stated for instance:

*“It is a real advantage that you know our organisation well. I do not have to explain everything, i.e. our organisation, our projects, etc. in detail. And although I do not explain everything you understand and have a clear idea about what I am talking about. Deutsche Telekom is a very complex organisation and external people have difficulties finding their bearings.*”

*Beyond that point, you know very well the characteristics of our company so that you can question what has been stated.”*

A potential further limitation of doing research as an internal results from the case study approach. There is a particular risk, when doing case study research as an internal, of becoming too involved in the organisation, particularly in one case or one organisation. It might be difficult straying from subjects' perspectives and adopting a sufficiently broad perspective that explores all possible angles (Bryman 1995, p.165). So generalising from a single case or a very small number of cases is probably easier in the case of an external researcher. In the case of this study, it proved to be beneficial in this connection that the researcher took a new position in a different organisation, a French group in the construction industry, after the data collection process. This served to enhance the critical analysis of the findings and enabled taking new perspectives on the phenomenon under investigation.

There is no doubt about the risks of doing research as an internal and the need for a continuous process of reflective awareness. The quality of data and findings, however, depends on the fieldworker's understanding of the organisation. It will never be precisely the same understanding that those who live in the organisation have, but the internal researcher is more likely close to it and more likely able to at least partially capture the implicit dimension of knowledge. This is a particular strength and value of insider research.

### **3.10.5 Organisational and Researcher Roles**

A research project with top managers presupposes that the researcher as an employee of the organisation is accepted as an appropriate person to talk to, i.e. the researcher has to be viewed as competent and independent in order to avoid being refused by the top managers. It is key for doing research as an insider to be aware of organisational politics

and to assess the power and interests of the corresponding top managers in relation to the research project. Furthermore, derived from the experiences made in this study and as suggested by *Brannick and Coghlan (2007)* a certain hierarchical positioning of the work role of the researcher in the organisation seemed favourable. A senior manager stated in an interview:

*“From my point of view, I admit that it is important to me that I know you personally. This comprises that you are neutral and that I know you in your professional capacity in the top management human resources department.”*

Insider researchers are likely to encounter role conflict “... and find themselves caught between loyalty tugs, behavioral claims, and identification dilemmas” (*Brannick and Coghlan 2007, p. 70*). Enacting two roles—the role of an insider researcher and an active work-role—affects the researcher’s relationships with fellow organisational members and raises ethical issues. Some of them were already addressed within the scope of participant observation (see section 3.8.5.3) and will be considered in greater detail in section 3.10.4.

A further negative point of that role duality results from the fact that the research could only be done as a part-time student. This represented the most important constraint for the researcher who held a management position in the case organisation. Due to the dual burden of working and researching, the time that could be spent for research purposes depended to a large extent on the professional workload. As the employer understandably set the number one priority as professional issues, this significantly slowed down the completion of the research project.

Finally, the proximity of the internal researcher can also be a problem, especially for top managers (see *Richter 1998*). Due to, e.g. positional solitudes, top managers might hesitate to entrust something to an internal because they are afraid that it could be misapplied or be viewed as not loyal.

### 3.10.6 Ethical Issues and Insider Research on TLOL

Ethics are most frequently discussed in relation to the responsibilities of more powerful people against less powerful people and arise frequently from a clash between personal and professional interest (Easterby-Smith et al. 1997, p. 64). In other words, there is a risk that the researcher—instead of taking responsibility for the research subjects—will disregard personal privacy or confidentiality, in order to obtain good data and promote his/ her own career. Ethical issues are discussed most in qualitative research because the researcher has far more control about what data are collected, how they are recorded and interpreted.

Although according to *Miles and Huberman (1994)*, ethical questions can concern a long list of issues, there is little guidance on ethical issues in the business and organisational research literature (Lindorff 2007). As they cannot all be discussed here in detail<sup>90</sup>, this section will concentrate from an insider researcher perspective on the three fundamental principles identified by *Lindorff (2007)* that have to be respected when undertaking business and organisation research.

For a brief summary of the following discussion and the practical implications of ethical issues for this study reference is made to table 17 below where the main strategies of the researcher to deal with (potential) ethical issues are briefly described.

Ethical issue	Ethical issue/questions	How the researcher dealt with potential ethical issues—Examples :
<b>Worthiness of the project</b>	For the researcher: If he is not convinced of the worthiness of the project there is a risk that the study is pursued in a shallow way.	Strong professional and personal interest of the researcher in the issue. Sponsorship agreement with DT group was made. Regular progress controlling by supervisors and OU staff.
<b>Competence boundaries</b>	Does the researcher have the expertise and capacity to carry out a study of good quality? Ready to study, be supervised, trained, ask a friend/colleague for help?	Regular meetings and support with the researcher's supervisors Prof. J. Storey and Prof. P. Quintas.  Regular exchange and reflection with other research students or academic staff

<sup>90</sup> For a further discussion of ethical issues it is referred to the corresponding literature (e.g. Miles and Huberman 1994, Bryman 1995 and Easterby-Smith et al. 2008, Lindorff 2007).

		<p>Targeted training on e.g. interviewing skills</p> <p>Concerning language skills: Ask somebody for help to polish the researcher's English for the final version.</p>
<b>Informed consent</b>	<p>Participants in the study are fully informed about what the study will involve. Did they agree with that voluntarily?</p>	<p>Yes, except in phase 2 of the data collection process. Here in most cases the research subjects were not informed about the research project (→ covert participant observation, see section 3.8.5.3). Collected data are therefore just used as complementary data or as an aid to interpret primary data. If a top manager was quoted in the study he was asked for his approval and informed belated about the research project.</p>
<b>Benefits, costs and reciprocity</b>	<p>What will each party of the study gain from having taken part? What will they have to invest in terms of time and other resources?</p> <p>Deceptiveness of broken promises.</p>	<p>Some aspects are covered by the sponsorship agreement with DT group. A copy of the thesis will be handed over to DT group.</p> <p>Cf. scientific and practical contribution of the thesis.</p>
<b>Harm and risk</b>	<p>What might this study do to hurt the people involved?</p>	<p>Sponsorship agreement and a specific agreement with the public relations department were made.</p> <p>Verbatim critical quotes could cause trouble for the quoted managers. Therefore all top managers were asked for their agreement to exploit the collected data. Names of individual top managers are in general not given. (exception: CEO or the researcher was authorised to do so).</p>
<b>Honest and trust</b>	<p>What is my relationship with the people I am studying? Am I telling the truth and do we trust each other?</p>	<p>The researcher had an active work role in the organisation that was perceived as independent and neutral with regard to this study. Trustful relationship with top managers. Top managers were informed about the research project.</p>
<b>Privacy, confidentiality and anonymity</b>	<p>How identifiable are the individuals and organisations studied?</p> <p>Explicitly confidentiality agreements</p>	<p>It was tried to make identification of individuals impossible. The case company and the CEOs are identifiable even if names would not be given.</p> <p>Certain information (e.g. turnover at top level etc.) was not given.</p> <p>A specific agreement with the public relations department of DT group is made. A non-disclosure agreement of the thesis intended.</p>
<b>Research integrity and quality</b>	<p>Is the researcher's study being conducted carefully, thoughtfully, and correctly in terms of reasonable set of standards?</p>	<p>Methodological approach is systematically derived and described in detail in the methodology chapter.</p>

<b>Ownership of data and conclusions</b>	Who owns the field notes and analyses of the researcher ?	Field notes and analyses are in the hand of the researcher. Will be destroyed after the completion of the research project.
<b>Conflicts, dilemmas, and trade-offs</b>	There is often a conflict between different interests.	See above.  As an internal researcher: potential loyalty conflict, i.e. conflict between role as a researcher and the internal work role. The researcher hold different work roles through-out the research process and works now for another company.

Source: analogous to Miles and Huberman (1994, p. 289 ff.)

Table 17: The Thesis and Ethical Issues when Doing Research

The three ethical core principles that are particularly relevant for the ethics of insider research on TLOL are justice, beneficence and respect for persons, whereby the practical arrangement depends significantly on researcher values and attitudes (Lindorff 2007). Although it might be difficult to achieve, this study was driven by the desire to meet goals of the sponsoring organisation, to meet academic interests and standards, and to provide benefits to participants in equal measures, because this longitudinal study could not have been possible without the long-term support of the case organisation and their top managers.

The principle of justice requires the benefits and burdens of the research to be equally and fairly distributed between the research subjects, the sponsoring organisation and the researcher. Thus, e.g. top managers should not be required to bear the burdens of research in terms of time, energy, or disclosure of personal information while other groups, such as the researcher and the case organisation, reap the fruits of the research project <sup>91</sup>.

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<sup>91</sup> Thus parts of the results of the data collection process were, for example, also incorporated on short notice into top management development programmes.

Likewise, the right balance has to be found between the researchers' academic interests and the desire of the sponsoring organisation not to have negative findings published. On the other hand it is imaginable that pressure might be placed upon the researcher to interpret the findings in a particular way or to release information on individual top managers that might be of particular relevance when doing research as an internal. However, this was not the case in this study and part of the mutual agreement with the sponsoring organisation.

The second important fundamental ethical principle is beneficence. It requires that the researcher makes efforts to secure the well-being of participants and does not cause harm. It also comprises that the research creates benefits for the sponsoring organisation, the top managers as the research subjects and the researcher. This might be tricky but is a basic precondition for negotiating primary and secondary access (see section 3.10.3).

The third core ethical principle is 'respect for persons' which is—given the crucial role of trust and confidentiality (Richter 1998)—of particular relevance when doing research on TLOL. It involved the researcher explaining to the top managers as research participants, the purposes and nature of the research so that they could freely choose whether or not to participate. Here it is also necessary to simultaneously meet the different goals and objectives of the individual top managers, the sponsoring organisation and the academic interests of the researcher.

In a nutshell, it is agreed with *Lindorff* (2007) that there is a strong need for researchers to continuously reflect upon their own values and the way they deal with ethical issues throughout their research projects.

### 3.10.7 Advantages and Disadvantages of Doing Research as an Internal

It was shown in the previous sections that there are a series of specific challenges and dynamics that distinguish insider research from an external researcher approach. As this research project requires—as was shown before—a strong involvement of the researcher, it is important to be aware of the inherent opportunities and risks and the imminent potential ethical problems. Therefore the table below finally sums up the strong and weak points of insider academic research on TLOL.

Doing Research on TLOL as an Internal		
	Strong Points	Weak Points
<b>Access</b>	<ul style="list-style-type: none"> <li>▪ Gaining the permission to undertake the research and to have access to the organisation (= primary access) is much easier for an internal research fellow</li> <li>▪ As a full member of the organisation the internal researcher has full access to the organisation (→ rich data base)</li> <li>▪ Possibility to involve a large number of different top managers of the same organisation in the study which work, act and learn under comparable conditions (→ comparisons between managers)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Insider researchers who undertake research that involves top managers as research participants might need to hold a 'neutral' function in the organisation and might require a certain hierarchical positioning/ status to be accepted as an appropriate person to talk to and to entrust.</li> <li>▪ Negotiating access to specific parts of the organisation that are relevant to the research (= secondary access) can be a 'tricky business', especially in longitudinal studies and/ or in fast-changing organisations. Study cannot only be conducted 'pro bono publico'. Research also has to be of benefit for the sponsoring organisation and the participating top managers.</li> <li>▪ Risk of being overwhelmed with data</li> </ul>
<b>Lived Understanding of the Organisation</b>	<ul style="list-style-type: none"> <li>▪ Speaks and understands the same language as the research participants; knows the internal jargon and culture</li> <li>▪ In contrast to traditional approaches insider researchers have stronger contextual insights. They are thus more likely to provide knowledge about what organisations are really like.</li> <li>▪ Can contribute to a better understanding how top managers are constructing their reality.</li> <li>▪ Insider researchers can make use of their preunderstanding of the organisation for the interpretation of data and are more likely able to critically assess statements, decisions and actions of top managers.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Insider academic researchers risk being too close to the research phenomenon, being blind to certain aspects or not attaining the necessary objectivity</li> <li>▪ Risk of bias. Insider researchers might tend to concentrate on events with which they are already familiar or to seek out informants because they know them and their viewpoints on certain issues.</li> <li>▪ Insider researchers might risk assuming too much and not probe as much as if they were outsiders.</li> </ul>



	<ul style="list-style-type: none"> <li>▪ Tacit/ implicit dimension of knowledge is more likely accessible from within. Is more likely able to provide insights what causes the outcome of interest and to identify causalities.</li> </ul>	
<b>Organisational and Researcher Roles</b>	<ul style="list-style-type: none"> <li>▪ Researcher is able to consider the phenomenon under investigation from an inside and an outside perspective and to gain in-depth contextual insights.</li> <li>▪ Insider researchers can attend meetings etc. without drawing too much attention on themselves.</li> <li>▪ Insider academic researcher can make a distinctive contribution to the debate on the transfer of knowledge between academics and practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enacting two roles – the role of an insider researcher and an active work-role – might raise ethical issues, cause conflicts of interest and affects the researcher's relationships with fellow organisational members.</li> <li>▪ Dual burden of working and researching. In general it might only be feasible to carry-out a single case-study.</li> <li>▪ Potential negative effects on the researcher's career prospects in his active work-role</li> <li>▪ Proximity of the internal researcher might be viewed as a problem by top managers. Due to e.g. positional solitudes top managers might hesitate to entrust something to an internal because they are afraid to be viewed as not loyal or that it could be misapplied.</li> </ul>

Table 18: Advantages and Disadvantages of Doing Research as an Internal

In order to deal effectively with the specific challenges of doing research as an internal and potential ethical issues a series of practical measures were taken which were described in the previous sections (see also table 17). However, the most important measure was the regular reflection of the research process in which the supervisors and peer students and other external people (e.g. a former professor of the researcher) were involved.

### 3.11 Conclusion

The above methodological chapter was to present and discuss the choices made around the methodological approach of this study. It also dealt with particular research problems in the field of TLOL.

Hereafter, some key issues related to how the proposed research questions can be answered from the empirical evidence will be summarised and synthesised. Likewise, strong points and the limitations of research design and methodology will be summed up:

- In the face of the formulated objectives (→ theory-building) and research questions of this study and given the strong points of such a research design it was decided to carry out a qualitative case study.
- In order to better explore the less obvious or idiosyncratic aspects of TLOL and to provide strong contextual insights, the decision was made to carry out a single case study.
- In order to minimise the limitations and constraints that result from a single case design, the study was carried out as an embedded single case study. In addition, a long-term approach to the study and the triangulation of data sources and data collection methods was employed in order to increase generalisability. An embedded research design enabled comparisons—particularly when it came to the evaluation of the effectiveness of learning—between different parts of DT's top management.
- It could be derived from the discussion in this chapter that research on TLOL requires—as learning cannot be observed directly—a strong focus on the learning context or environment and a strong involvement of the researcher. However, there are opportunities and risks in doing research as an internal. In order to comply with the standards of intellectual rigour and 'good' qualitative research it was shown that an in-depth consideration of the strong and weak points, of the specific dynamics and limitations of insider academic research is required. Through a critical process of reflexive awareness and by taking the necessary precautions to e.g. overcome

access problems or to avoid bias and the emergence of ethical issues, the internal researcher can take advantage of the strengths of being “native” and can undertake research in areas which traditional researchers are unable to uncover.

- It was furthermore shown in this chapter that research had to be based on observable changes in the organisation’s patterns of behaviour. Following *Richter’s* (1999) findings and as informal structures are difficult to observe particular attention was paid to formal structures.
- The results of TLOL can be positive or negative, and can, due to selective perception and constructivism (Berger and Luckmann 1966), be evaluated in many ways by different stakeholders (e.g. corporate versus divisional top management). They comprise two different types of results: economic key performance indicators and human resources/capabilities, such as knowledge, trust, cohesion.
- Concerning research methods apart from semi-structured interviews—a flexible research tool which provided the opportunity to learn more about the personal views of top managers on TLOL, organisational learning and adaptation—documentation or archival sources, and observation were used. In order to minimise potential ethical issues, observation was only used as a method to provide complementary information about a certain topic. Primary data were supplemented with secondary data (i.e. a study of the auditing department).
- Due to the complexity, size and decentralised organisation of the case company, the definition of top management was expanded—in contrast to the classical studies on CEOs and very small top management teams—to business unit heads who have great responsibility in large, decentralised organisations.

- There are a series of ethical issues when doing research as an internal. Especially the principles of justice, beneficence and respect for persons are relevant for the ethic of insider research on TLOL. There is a strong need for researchers to continuously reflect upon their own values and the way they deal with ethical issues throughout their research projects.

Having discussed how the identified research questions could be researched from a methodological point of view, the next chapter will now present the results obtained with those methods.

# Chapter Four - Organisational Learning at Top Level in the Case Organisation

## 4.1 Introduction

Having derived the research questions and the conceptual framework for data analysis from the literature and having investigated and shown how the identified research questions could be and were researched, this chapter will now describe the DT Group case organisation and the following four embedded cases in greater detail:

- The top management of the fixed network business (divisional sample)
- The top management of the mobile and online business (divisional sample)
- The top management of the systems business (divisional sample)
- The top management of DT's headquarters (corporate sample)

As an embedded case study approach is applied and TLOL will be considered both from a group as well as a divisional perspective, it is important to gain a better understanding of the setting of the study and how the individual cases and the learning of the corresponding top management should be appraised within the overall context. Section 4.2 will therefore introduce into the case organisation Deutsche Telekom as the top management's organisational learning environment, briefly outline the challenges the top management had to face in the period under review and provide some key figures on the DT Group's organisation and financial performance<sup>92</sup>. Likewise and based upon the definition of the concept 'top management' applied to this study (see Methodology Chapter, section 3.8.4), section 4.3 will then sum up the main characteristics of the DT

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<sup>92</sup> As shown in the methodology chapter, the performance of an organisation alone is not an adequate condition for evaluating the effectiveness and quality of top management learning. Instead, the starting point and case-specific criteria must also be taken into account in order to provide valuable corresponding indicators, or to refer to potential opportunities and constraints.

Group's top management at the beginning and at the end of the time period considered in this study. This adheres to *Finkelstein and Hambrick's* suggestion (1996), according to which conclusions can be drawn from this for the input and outcome of TLOL.

While the start and end points represent the comprehension of the case as a whole, and just a short map of the different approaches to TLOL will be given in section 4.3 (compare table 19), the reader will learn more on the case-specific context and approaches to TLOL in the following individual cases.

In order to make these case studies comparable with one another, each case starts with a general introduction of the case and the case background. This is followed by a comprehensive account of the approaches to TLOL. The emerging themes and main findings are briefly summarised at the end of each case.

Finally, section 4.8 presents an overview of the main findings of all cases. These findings provide the basis for the subsequent in-depth analysis and literature discussion in Chapter Five.

## **4.2 Profile of the DT Group Case Organisation**

The top management investigated in this study heads the Deutsche Telekom group, which is today a major player in the highly dynamic telecommunications industry and has its headquarters in Bonn, Germany.

### **4.2.1 Deutsche Telekom as a Public Authority**

The case organisation was formerly an administrative section of the Federal Ministry of Posts and Telecommunications in Germany and operated as such under the constitutional requirement to provide an infrastructural service and in an environment with

substantial political interference on central strategic and operational decisions. As a state owned and governed public sector company that had an almost entirely German orientation, Deutsche Telekom held a monopolistic market position, and was run—up to the very top of the organisation—by civil servants who were protected by the laws and regulations governing such state employees. However, as a result of the postal reforms in Germany 1989 and 1995, Deutsche Telekom was subsequently confronted with fundamental change and DT's top management had to face the challenge of aligning the company accordingly.

#### **4.2.2 Deutsche Telekom's Learning Challenges**

Just like other companies in the telecommunications sector, Deutsche Telekom now had to cope with the fast pace of technological progress and ever shorter product life cycles. The political decision was made to privatise Deutsche Telekom, to float the shares on the stock market and to transform the company into a private-equity corporation with international reach. Furthermore, due to the complete liberalisation of the telecommunications market in Germany, ways had to be found to keep up with the keen competition in existing and emerging new markets (e.g. mobile communications, internet, etc.) and to compensate for the loss of its monopolist position in the German market. To put it in a nutshell: The "rules of the game" changed completely for Deutsche Telekom: new technologies, and above all new shareholders and new market conditions, had to be managed.

The first management board of Deutsche Bundespost Telekom<sup>93</sup> - established in 1990 as a result of the first postal reform – consolidated these challenges for Deutsche Telekom into the three pillars of the group's strategic realignment and declared these to be of the

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<sup>93</sup> = Official name of DT at that time.

absolute highest priority and the supreme maxims for the actions of the top management:

- **"A fundamental *cultural change*, i.e.:**
  - from sovereign to customer-oriented behaviour*
  - from technical orientation and satisfaction of public needs to efficiency and economic efficiency...*
  
- **the *strategic realignment* of the group, i.e.**
  - from telecommunication services to value added services and multimedia*
  - from a national-oriented, "stand-alone" company to a global player with international partnerships and joint ventures*
  
- **a *fundamental re-organisation* of the group, i.e.**
  - from a cumbersome bureaucratic and technical-oriented organisation to a customer-oriented, flexible organisation*
  - the foundation of subsidiaries in fast growing and highly competitive markets."*

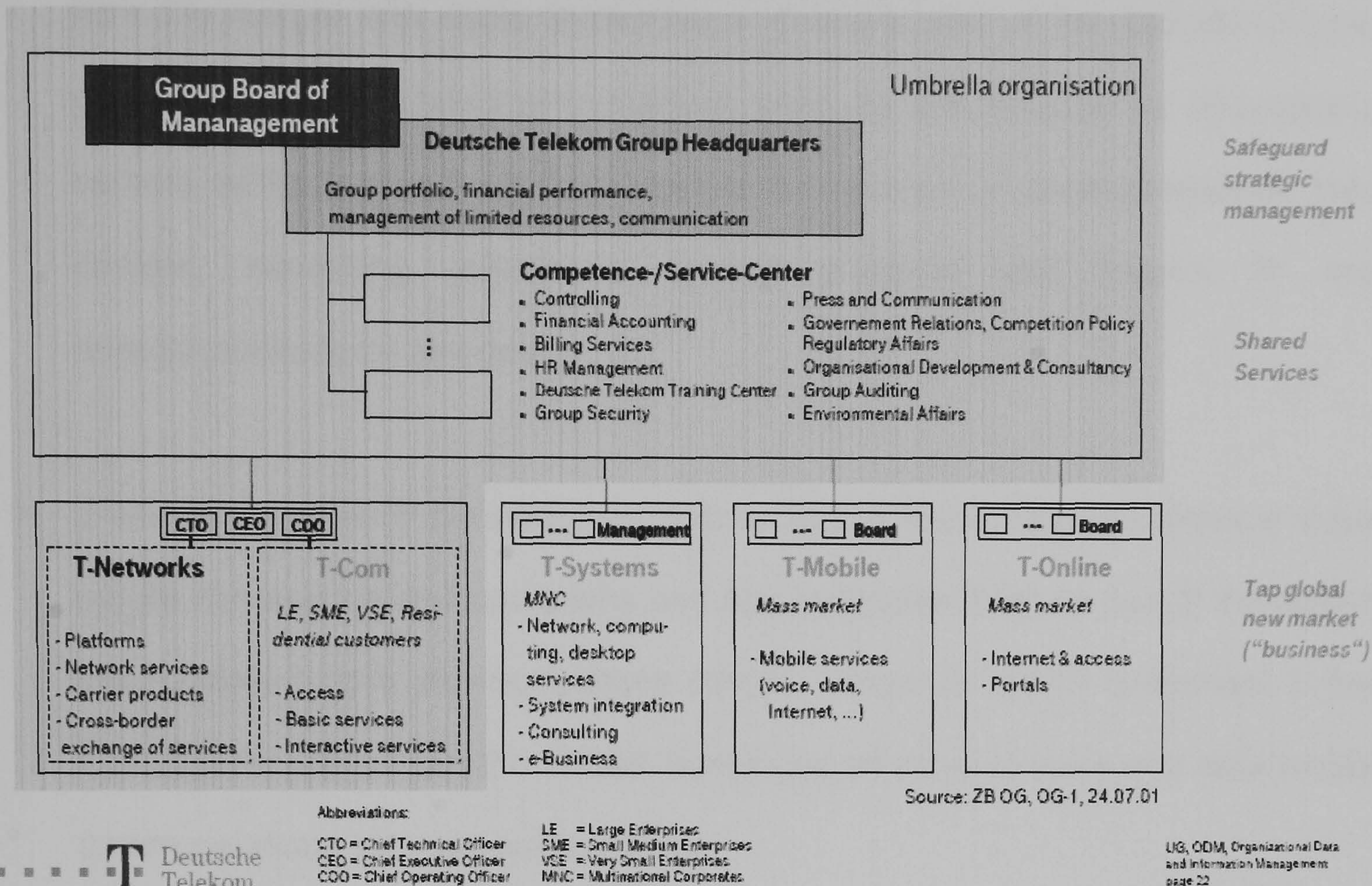
Source: Blank (1996)

#### **4.2.3 Deutsche Telekom's Organisational Structure in 2002**

12 years after the establishment of the first management board, 7 years after privatisation and 4 years after the complete liberalisation of the telecommunications market in Germany, the former "monolith" Deutsche Telekom was organised as a strategic management holding (see figure below).



## New structure of the Deutsche Telekom Group



Source: (DT internal presentation, ZB OG, 2001)

Figure 4 : DT Organisation Chart

Business operations were controlled by the following four "lines of business" that had full entrepreneurial responsibility for developing their markets in keeping with their business orientations:

- First, fixed network business *T-Com*<sup>94</sup>, which is one of the largest fixed-network providers in Europe. T-Com's numerous services and products are based upon one of the world's most advanced network infrastructures. T-Com is the sales and financial stronghold of the DT Group and served at that time more than 40 million residential customers and some 350,000 business customers from the SME segment (small and medium enterprises).
- *T-Systems* (i.e. systems business) offers worldwide systems solutions and IT/telecommunication solutions to global customers from a single source. The

<sup>94</sup> incl. T-Networks

service portfolio of the second-largest systems house in Europe that emerged from the merger with debis Systemhaus—formerly part of the Daimler-Chrysler group—ranges from telecommunications products and services for international carriers, all the way to the implementation and operation of desktop systems, data centers, consulting, eBusiness system solutions and classic IT and telecommunications services.

- *T-Mobile* (i.e. mobile business) integrates the Deutsche Telekom Group's major mobile communications operations and has positioned itself as one of the largest international mobile communications carriers. About 54 million customers in five European countries and the United States use an array of voice and data mobile communications services and products.
- *T-Online* (i.e. Internet/online business) is DT's mainstay on the Internet market and Europe's biggest online service. With about 12.5 million subscribers, including more than 10 million in Germany alone, T-Online has the greatest reach of all portals in the German-language Internet. In addition to Internet access, the product portfolio also comprises value-added services, such as Web hosting, e-mail services, online banking and international roaming access. With effect from January 1, 2000, T-Online was transformed into a stock-corporation, T-Online International AG. T-Online was the only business line to undergo such a transformation.

With its strategic focus on these four central lines of business, DT's top management sought to position Deutsche Telekom as a leading T.I.M.E.S provider in the global arena. These four lines of business with growth-oriented business models were meant to focus on the corresponding international markets, while at the same time collaborating closely in order to develop convergent products and services.

#### 4.2.4 The Four Cases at a Glance

A more in-depth consideration of further key data on the DT Group and its different parts (see table 18 below) illustrates that the top management groups of DT's headquarters and the different businesses found themselves in a very different learning environment.

	Case "Head- quarters"	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"	"DT Group" in total
<b>Key figures</b>						
<b>Considered period of time</b>	1990 - 2002	1990 - 2002	1993 (foundation) - 2002	1996 (foundation) - 2002	1994 (foundation) - 2002	1990 - 2002
<b>Sales 2002 (in billion €)</b>	./.	25.4	19.7	1.8	11.3	53.7
<b>Annual result before tax (in billion €)</b>						
<b>2001:</b>	./.	4.6	-6.4	-0.2	-0.4	-3.5
<b>2002:</b>	./.	3.5	-23.7 <sup>A</sup>	0.0	-2.0	-24.6 <sup>A</sup>
<b>Nb of employees</b>	Decreasing <sup>C+D</sup>	Decreasing	Fast growing	Growing	Fast growing	Growing
<b>1998:</b>	17,241 <sup>C</sup>	166,097 <sup>B</sup>	6,000	560	5,978	195,876
<b>2002:</b>	19,266 <sup>D</sup>	148,900	41,597	2,814	43,292	255,969 <sup>E</sup>
<b>Size of organis.</b>	Medium	Large	Medium	Small	Medium	Large
<b>Case characteristics</b>						
<b>Stage of Development of the Market</b>	./.	Mature	Fast Growing		Growing	See business lines
<b>Market characteristics</b>	./.	Monopolist position until liberalisation in 1998	Market deregulated since 1993; highly competitive markets		Competitive ext. market, but strong DT-internal business	See business lines
<b>Age of the organisation:</b>	Long history and tradition		New founded organisations			Long history and tradition
<b>Specific constraints:</b>	"Heritage" of the public authority (e.g. civil servants [still 50% of total staff in 2002], cameralism)  Due to legal constraints limited access to ext. labour market until privatisation in 1995		Very limited.  (Could develop relatively untouched from the rest of the organisation and the heritage of the past)			Strong influence of German government (partly state-owned company)

Source: annual reports DT group 1998 and 2002

<sup>A</sup> record loss, due to important investments and depreciation

<sup>B</sup> figure ascertained by author based upon annual reports; > 16,700 people were made redundant since 1995; > 60,000 people were made redundant between 1998 and 2002

Figure comprises DT headquarters (= approx. 5,400 employees) plus assigned units; (Source: information provided by HR Strategy department)

<sup>D</sup> corresponds to DT headquarters (= 1,039 employees) plus assigned units; (Sources: annual report DT group 2002; draft resolution "strategic management holding" for the board of management, dec. 17, 2002)

<sup>E</sup> thereof ca. 78,000 were located outside of Germany.

Table 19: Key Figures on Case Organisations and their Top Management

The corresponding cases thus differed significantly with regard to the scope of business activities, financial performance, the maturity, deregulation and development of their markets and organisational characteristics, such as their age and size of the organisation or their specific constraints.

The question must now be raised as to what this learning environment of the respective case organisation actually meant for TLOL. Whereas the mature fixed-network business and the headquarters evolved from the former public authority structures directly in the wake of the postal reform, Mobile/Online and Systems were established as autonomous companies to be able to operate independently from the 'ballast of the legacy of the organisation' in new, extremely dynamic and fast growing markets. As will be shown later, this legacy entailed a series of constraints on TLOL and the transformation of the wider organisation as a whole. Consequently, very different cultures—ranging from 'start-up companies' to the successor organisation of a public authority—were able to emerge in these different parts of the DT Group.

This was particularly striking for newcomers. A newly appointed financial top manager at DT's headquarters who had the opportunity to gain deeper insights into all parts of the group described DT's company culture as follows:

*"The culture of Deutsche Telekom is as a matter of fact not a monoculture as it is the case in many other companies. The individual group elements have a very different character you have to deal with. This is why the group has a great degree of variety. That's a positive factor, but sometimes a difficult one, too."*

Several other—above all externally hired—top managers, such as the following top manager who headed a consulting subsidiary of DT Group (annotation: part of T-Systems) that carried out consulting projects with external customers as well as in-house DT projects, shared this view:

*"I have projects everywhere in the group. Everywhere handles everything differently. The most lively part of the top management is in T-Mobile. It is hard in T-Com and the most old-fashioned behaviours can be found there, but the culturally most difficult ones are T-Systems. T-Online seems to run rather smoothly—sometimes you have the impression that you are working for completely different companies."*

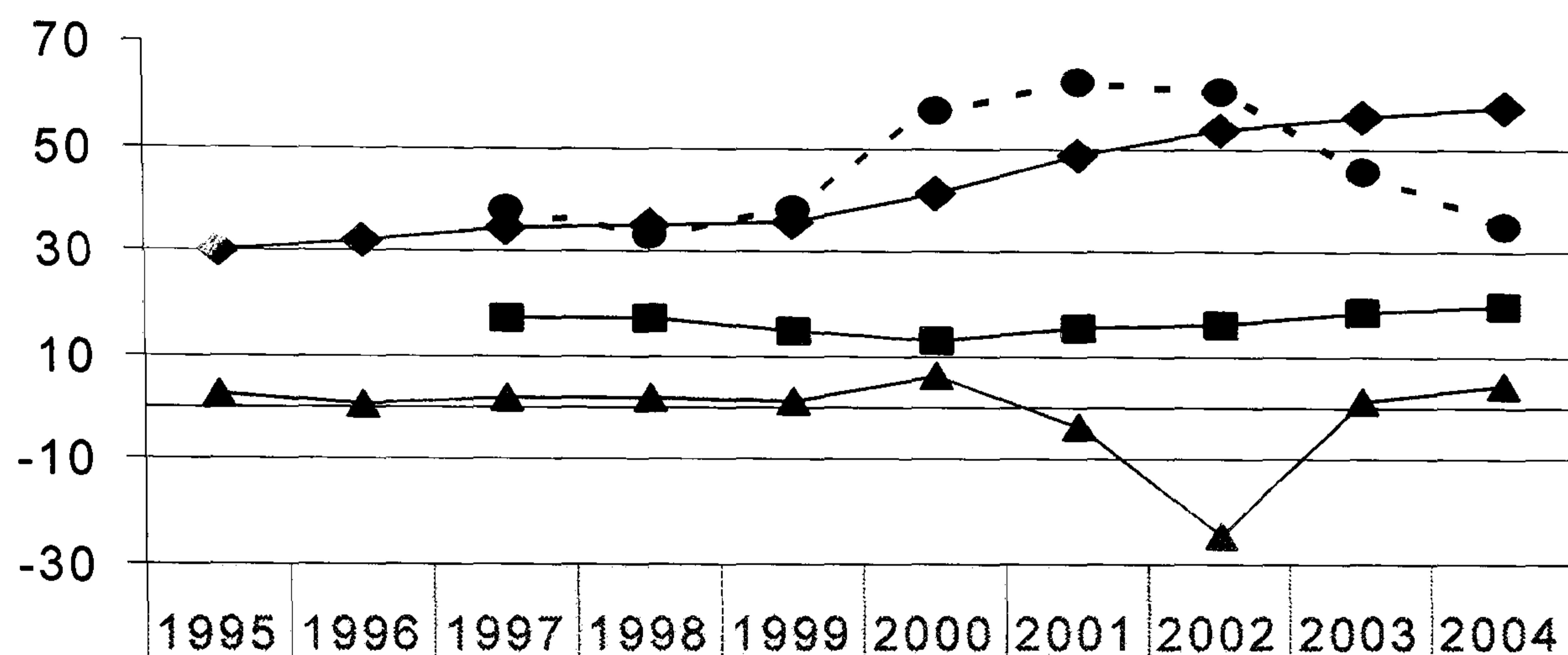
Consequently, the top management was in each case confronted with a different starting position, different challenges and different dynamics and constraints on target markets and the organisation. Due to these different learning environments, different strategic approaches had to be pursued and different demands were thus placed on the organisational learning of the corresponding parts of DT's top management. This will have to be taken into consideration in the corresponding individual case descriptions and the evaluation of TLOL.

#### **4.2.5 Deutsche Telekom's Financial Performance and Assets Analysis**

However, in light of the poor financial performance of the DT Group (see table 18 above), one might become doubtful and question if DT's top management learned how to run the business. DT group thus realised a record loss of EUR 24.6 billion (annotation: corresponds to approx. GBP 16.2 billion!) in 2002.

However, a closer appraisal of the longitudinal evolution of the most important financial indicators since the privatisation of the DT Group in 1995 revealed a principal financial strength of the DT Group with a stable development of EBITDA and a continuous increase in sales.

In billion €



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
—◆— Sales	30,4	32,2	34,5	35,1	35,5	40,9	48,3	53,7	55,8	57,9
—■— EBITDA			17	17,3	14,5	12,9	15,1	16,3	18,3	19,4
—▲— Net profit	2,7	0,9	1,7	2,2	1,3	5,9	-3,5	-24,6	1,3	4,6
-●- Net financial liabilities			38,3	32,9	37,9	57,4	62,8	61,1	45,6	35,2

Source: Annual financial statements of the DT Group; annotation concerning EBITDA and net financial liabilities: corresponding figures were only available starting from 1997.

Figure 5 : Financial Performance DT Group

And this against the background that some 60 billion German marks (annotation: corresponds to approx. EUR 30.68 billion) had to be invested in infrastructure in former East Germany (Büchner 1999, p. 13) in the early 90s in connection with the German reunification in 1989.

On the other hand, the figures reflect very substantial investments. According to the group's assets analysis (see 2002 DT Group annual report), EUR 43.1 billion were invested in 2000 and EUR 37.7 billion in 2001 (compared to EUR 7.5 billion in 1998)—in both cases mainly for acquisitions (including the U.S. wireless group VoiceStream for over thirty billion Euros) and licences (e.g. the UMTS licence for 16.6 billion German Marks<sup>95</sup>). These investments were a burden on the results of the business activities and led in the most extreme manifestation to a maximum value of the group's net financial liabilities of EUR 62.8 billion.

<sup>95</sup> This corresponds to approx. EUR 8.36 billion.

The substantial investments in infrastructure, licences and acquisitions could be seen as an indicator for the high capital intensity of the business and the availability of financial resources. However, the high losses raise the question as to whether the right quality and quantity of investments were made in the periods under review, and who or what elements of the top management respectively have to take responsibility for the corresponding investment decisions. The evaluation of the large majority of the top managers interviewed who regarded the top management of T-Mobile (the division with the highest losses) as the part of DT's top management which was the most effective as regards TLOL, confirms *Bryman's* (1995) point, that there is no objective but a socially-constructed measure for effectiveness (compare Methodology Chapter, section 3.7.4.2). This will be considered in greater detail in the individual cases.

### 4.3 Profile of the DT Group's Top Management

Having taken an initial glance at the top management's learning context and realising that the top management of the corresponding cases acted due to differing market conditions and characteristics of the corresponding case organisations in very different learning environments, this section will now concentrate on the subjects of TLOL.

The following overview imparts an impression of the internal structure of the top management in the case organisation at the start and end of the period under review in this study and of the corresponding approaches to TLOL. The table illustrates that a heterogeneous top management developed from the originally homogenous top management, with its own characteristics for each business and the headquarters:

<b>Deutsche Telekom in 1990: Characteristics of DT's Top Management<sup>A</sup></b>	
<b>Status of top managers</b>	Top management consists of civil servants.
<b>Age</b>	Older, i.e. on average > 50 years (promotion principle: seniority)
<b>Tenure</b>	Very long tenure, many years of experience in DT (promotion principle: seniority); No job experience outside DT.
<b>Cognitive complexity<sup>D</sup></b>	Strong technical orientation; specific graduation and career track for civil servants that goes along with intense training.
<b>Geographic origin</b>	From Germany only.

Approaches to Top Level Organisational Learning						
	Case "Head-quarters"	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"	In total for "DT Group"
Spin-off of the business in..	./.	./.	1993	1996	1994	./.
Mergers & acquisitions <sup>B</sup>	None	Medium	High		Very high	High
Frequency of restructurings/ key projects of the business <sup>B</sup>	Medium	High	Low		Very high	High
Rate of external hires <sup>B</sup>	Very High	Low - Moderate	High		High— Very high	High
Internal top management Training <sup>B</sup>	Several common top management training courses		No business-internal training offerings.			None until 2001
Formal top management networks (divisional & group level)	None	At least annual meetings of the top 100 and 300 mgrs. of the business	At least annual top mgt. meetings plus further events (teambuilding)	At least annual meetings of the top 30 mgrs. of the business	At least annual meetings of the top 70 mgrs of the business	At least annual meetings of DT Group's top management (last called 'TOP 100')
Deutsche Telekom (as of August 2002): Characteristics of DT's Top Management (corresponds to 121 Top Managers)						
	Case "Head-quarters"	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"	In total for "DT Group" <sup>C</sup>
No. of top mgrs assigned to DT's top mgt.	33 (27%)	24 (20%)	33 (27%)	7 (6%)	24 (20%)	121 (100%)
Nb. of top mgrs. from outside Germany	0	6	16	0	8	30 (25%)
Nb. of civil servants	3	7	3	2	2	17 (14%)
Age (compared to average age of 47.3 years)	below	above	Much below	Much below	below	Below average age in 1990
Tenure (compared to average tenure of 7.5 years)	below	above	below	below	Much below	Below average tenure in 1990
Cognitive complexity <sup>D</sup>	High	Low	High	High	Very high	High

(Depicted by author based upon interview results and the analysis of corresponding documentation)

<sup>A</sup> Results of interviews; no precise figures available

<sup>B</sup> Compared to other parts of the top management

<sup>C</sup> Compared to 1990 (see above)

<sup>D</sup> Diversity of formal education, external job experience, etc.

Table 20: The Case Organisation's Top Management - Short Overview



As is briefly outlined in table 19, it was also found that the internal configuration of DT's top management as a whole underwent a radical change in the time period under appraisal in this study, but the top management in the different case organisations evolved in different ways. The following section involves a closer appraisal of the top management at the start and the end of the period under review. The detailed appraisal of the approaches to TLOL will be made in the respective cases.

#### **4.3.1 DT's Top Management at the Start of the Period under Review (1990)**

As described in table 19 above, DT's top management consisted in 1990 of civil servants. Due to the fact that DT was an infrastructure service provider in Germany and service functions such as finance, purchasing, etc. were common functions of telecommunications and posts prior to 1990, most top managers had a technical background and acted in an exclusively national context.

It was apparently a relatively uniform group of people at the apex of that single company who followed the specific career track of civil servants. Top managers who had the status of a civil servant expressed in the interviews that due to the associated, in part commonly experienced and time-intensive training for civil servants, the top managers at that time often knew each other often quite well, even since the start of their career in Deutsche Telekom. In the interviews, it was reported that this often gave rise to "lifelong" close ties, as well as friendships and loyalty, on which one could have built. Furthermore, good cooperation was also partially attributed to the career development of civil servants displaying a tendency to pursue a stronger generalistic orientation in comparison with those colleagues recruited from the private sector. Thus, civil servants were apparently used to having job assignments in different departments, ranging from central tasks, all the way to technological functions. It obviously did not matter whether or not one had a

corresponding formal education or the specific knowledge required for the respective job. In this context, one of the senior managers interviewed—a former permanent secretary in the ministry—remarked dryly that civil servants had a saying: *"Knowledge comes with the position."*

Regardless of a possible lack of specialist expertise, numerous advantages were seen in this approach, particularly by civil servants who, according to their own statements and in line with the assessment of their CVs, actually made this experience. For instance, one interviewee—a top manager at the board level of the chairman of the board for many years and himself a civil servant who had previously held very different functions within the enterprise, including network planning, network operation and human resources—reported the following:

*"It's easier to adopt the perspective of a colleague on the other side when you've already held similar responsibility, or perhaps expect that one day you'll have to realise such a function yourself."*

A number of the interviewed top managers—all of them civil servants—admitted rather self-critically that the management culture at that time was obviously more oriented towards political aspects than performance and economic efficiency.

For example, one top manager who headed a central department at the board level of the chairman, reported:

*"In earlier days—also as a top manager—you did your job from eight to four. And then you put your pen down and knocked off. Today, there is a completely different willingness to perform. As a counter-move to that we have lost between us this enormous solidarity we had as the 'Telekom family'."*

Another top manager—a civil servant and in charge of an operational sales role—obviously shared this view:

*"Cost-oriented thinking—we didn't understand that at all back then. For instance, I passed my driving test here. I was given three weeks leave to do so. And we had managers who built their houses during working hours. Thankfully, we've departed from that old world."*

Apart from the management culture, the top management in 1990 differed from the later top management as regards their age and tenure in the organisation. It was reported by the interviewed top managers and an HR manager that, in line with the fact that seniority generally played an important role for promotion, most top managers at that time were apparently older than 50 years, with long years of service in the group as a result of the civil service system. Although neither figures on the precise number of top managers<sup>96</sup> nor reliable statistics<sup>97</sup> were available on DT's top management in 1990, the analysis of some available CV's confirmed these interview findings just as the previously identified strong emphasis on a mainly technical formal education.

It appears that little has changed at the top level in the first years after the postal reform in 1990, which marked the first step towards privatisation in 1995 and split the former "Deutsche Bundespost" into its three constituent parts (telecommunications, postal services and banking) and established each as an independent operational unit administratively separate from the ministry of Posts and Telecommunications. Also, the mobile and systems business/subsidiaries were still very small. In this context, the former

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<sup>96</sup> The CTO of T-Mobile—who started his career when DT was still a public authority—and the former responsible head of top management HR reported independently from one another that with the spin-off of 'Deutsche Bundespost Telekom' in 1990, it was stipulated that a maximum of 790 management posts could be transferred. "That was a tough requirement." [CTO, T-Mobile]. Initiated by the first Management Board, this later gave rise to the Top 60 and Top 300 managers (with the latter containing the Top 60).

<sup>97</sup> Personnel lists were not accessible for the period from 1990 to 1995 as responsibility for management of the top managers was not assumed by Telekom until privatisation.

responsible head of Human Resources Department for the top management staff explained in the interview:

*"Between 1990 and 1995, we had a stable management at top level as the employments were under public law. Everything had to be decided by the federal cabinet. Just as before, changes at top management level happened only when the government changed, but this never concerned the technical part. This is also why there were nearly no changes in the organisation. There were only two people at that time who joined the top management from outside Telekom, and one senior manager changed as CTO to our mobile business. At that time, we had a stable management that consisted of managers who had the specific qualifications of high level civil servants. A lot of them left Deutsche Telekom shortly after privatisation in 1995."*

Evidently, nothing changed in the structure of the top management in terms of age and technical orientation, as was reported by one of the newly hired two top managers mentioned:

*"When I joined the group in 1993, I was 39 years old and a 'yuppie' within the top management. In those days, I was viewed as very young—too young. And a businessman at that! It took at least 2 years for me to be accepted by the others! Today, seniority is not so important."*

After DT's privatisation in 1995 and the resultant removal of legal constraints, things changed rapidly at the top level (annotation: This will be considered in more detail in the corresponding cases) and resulted in a different configuration of DT's top management.

#### **4.3.2 DT's Top Management at the End of the Period under Review (2002)**

As can be seen from table 19, DT's top management in 2002 differed significantly from what it was 12 years before.

The original relatively homogenous group of top managers obviously gave way to a different top management structure that was involved in various businesses and which

was characterised by different scopes of their business activities, market and organisational characteristics, as described in section 4.2.3. Based upon corresponding documentation and the analysis of the top management's CVs, it was found that the new businesses that had not yet existed in 1990 now provided the majority of the top managers.

The decision of the corporate board to attribute greater importance—and with it power—to the management functions of the newer businesses was apparently a source of serious conflict and was, according to the interviews, one of the most controversial issues discussed at top level, mainly between the fixed network business on the one hand, and the new businesses, on the other hand. Two statements might illustrate this. The first is by a senior manager from fixed network business; the second is by a manager in the fixed network business who was refused a position amongst the group's TOP 100 Managers:

*"When the importance of the role for the Group is concerned, then I regard it very critically. In my estimate, the most important people should have the most important influence on the presentation of the Group result. When I see who was present at the last TOP 100 Meeting (annotation of the author: This is the DT Group's top management convention), I have to wonder whether some representatives of small units that only produce costs, or so many from smaller divisions of the Group really belong there?"*

*"It is sometimes really frustrating. I am responsible for 60,000 people and an investment budget of EUR 3 billion. Yet much more attention is paid to the other pillars. An equal status between T-Online and T-Com is, from my point of view, difficult as they are not equal."*

These conflicts arising from the decision on the composition of DT group's top management were seen in the interviews as one of the core causes for the poor assessment of cohesion at the top level, which was rated by 50% of the interviewees as worse than satisfactory. This contrasted the thoroughly "good" assessment by the civil servants interviewed of cooperation at the top level at the start of the period under review.

As already mentioned, all parts and businesses of the DT Group were represented—albeit in varying degrees—in DT group's top management. However, it could be observed that the top management of the different businesses differed substantially from one another, which indicates a strong linkage between the top management and its learning environment. A top manager of DT's headquarters described the group's top management as follows:

*"I remember the last TOP 100 meeting<sup>98</sup> we had in Potsdam. The Mobilers presented themselves as the young savages with their own culture and spirit. One had the impression that they were fresh, full of energy and wanted to achieve something together. The Onliners were a little bit more moderate. T-Systems had no real cohesion and seemed to be somewhat befuddled. And T-Com ... They are the dinosaurs of the fixed network. They are bad at self-marketing and bringing themselves to market. There is nearly no interaction between these different groups of top managers and due to the divisional structure interaction is decreasing even further."*

That which the above-mentioned manager's observation reflects, can also be seen in the development of a number of demographic traits. So what actually happened to the top management that originally consisted of civil servants with the aforementioned typical characteristics (> 50 years, long tenure, mainly technical formal education)?

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<sup>98</sup> Annotation: that is the annual meeting of the group's top management.

A closer inspection of the composition of the top management revealed that only a minority of top managers (in total: 14%) were still civil servants. One of the three left in DT's headquarters in 2002 claimed:

*"I sometimes feel like the last Mohican. Who is left? Mr. X (annotation of the author: name not disclosed for confidentiality reasons) has now gone and none of the old guard are left on the corporate board of management anymore ..."*

In this context, the number of civil servants in the "new" mobile, online and systems businesses was particularly low, with the largest number still being found in the large organisation of the fixed network business<sup>99</sup>, as can be derived from documentation.

The overall massive decrease of civil servants in the top management raised the question as to precisely what knowledge was lost and what new knowledge was introduced at top level in the period under review.

#### **4.3.2.1 "Lost" Knowledge at Top Level**

It was primarily the remaining civil servants themselves who pointed out in the interviews that they regretted the loss of technological competence and in-depth knowledge regarding the functioning of the group. They also claimed that the former powerful management networks would become full of holes and the strong identification with the "Telekom Family" would decline. In contrast, numerous externally hired top managers from the new businesses claimed in the interviews that no knowledge at all was lost during the transformation. Indeed, they stated that contrary was true.

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<sup>99</sup> This is not surprising given that according to an internal HR strategy paper (2002), 50% of the fixed network's business staff were still civil servants. It should be reiterated that for legal reasons, civil servants could not be made redundant, even after the privatisation of DT.

Having confronted a senior manager who played an important role in the group's OD-department for many years and now headed the fixed network's organisation department with these differing statements, he explained:

*"Our company's production is not comparable to other firms. This is a peculiarity of our business in fixed networks and a lot of externally recruited top managers are not aware of that. We sell something, and then it is produced in the net. A lot of externally recruited senior managers come from producing industries—I mean from the world of objects. Sometimes even from a company of a completely different size. Some of them underestimate the differences, and a considerable number of top managers have already failed due to this. Young managers who immediately enter the top level of our company do not have this company-specific knowledge and/or are unaware of the factors that can cause problems, especially within the framework of change processes. They simply do not perceive hurdles as they do not know the company and how it works. And it works on account of experience."*

This could be seen as a plea for preserving this experience-based knowledge, even it remains unknown precisely how much of this knowledge has to be provided. However, there is evidence that large parts of this experience-based knowledge were lost. This can be derived from the development of the top management's age structure and tenure in the group. The top managers interviewed stated themselves that one of the most striking trends involved a rejuvenation of DT's top managers and a decrease in tenure in the group in the period under review. This was confirmed by analysing the corresponding documentation (for further details it is referred to section 5.5.2.2). While a large majority of top managers was older than 50 years in 1990, the figure in 1995 was just 49% and in 2002 a mere 30%. At the same time, a significant rise in the number of younger managers was observed: In 2002, 23% of the group's top management were younger than 40, and in total 47% were younger than 45. These young top managers became particularly prominent in the mobile and online/Internet business.



Simultaneously, a significant decrease in tenure in the group was observed (for further details it is referred to section 5.5.2.2). In 2002, 47% of the group's top management had a maximum tenure in the group of 4 years. Although turnover rates could not be given for confidentiality reasons, the evolution of age and tenure already strongly indicates a lot of "coming and going" amongst DT's top management, naturally also accompanied by a loss of experience-based knowledge.

As shown above, the top managers interviewed also claimed a loss of technical expertise at the top level. According to the top managers interviewed, outstanding technical competence was no longer regarded as being very important. And as is evident from the structure of the group's management board, there was a lack of promoters for this. The analysis of the structure of the DT Group's management board over time (see table below) illustrates that the technological roles in this respect clearly lost importance. Where there were still 4 board members for technology in 1990, the last technology management board function was "dispensed with" in 2002.

	CEO	Technology	Marketing, Sales, Service, Product Mgt. Customer Segments	Strategy, Finance, Human Resources	International	Specific issues	in total
1990	1	4	1	3	0	1	10
1996	1	2	3	2	1	1	10
1998	1	2	2	2	1	0	8
2001	1	1	2	3	1	0	8
2003	1	0	4	2	0	0	7

Table 21: The Corporate Management Board of the DT Group

Furthermore, the analysis of the top management's formal education (for further details it is referred again to section 5.5.2.2) confirmed a steadily declining share of engineers and natural scientists (annotation: between 1995 and 2002 alone by 20%) in the top management and with it a loss of technical expertise.

#### 4.3.2.2 "New" Knowledge at Top Level

The loss of technical knowledge during DT's transformation between 1990 and 2002 was evidently accompanied by a simultaneous acquisition of new types of knowledge. As table 19 illustrates (annotation: the table is based upon the analysis of demographic data of the top management), the share of international top managers represented in the top management of this formerly only Germany-oriented company reached a new peak in 2002 at approx. 25%.

Furthermore, the top managers interviewed emphasised in particular improved knowledge on the part of the top management in the fields of marketing, sales and finance (for further details it is referred to section 5.5.2.2). Some individuals also made explicit mention of the corporate communications function. The analysis of the top management's CVs revealed that an increasing number not only complied with corresponding studies but also brought vocational experience in management positions at other companies. It could also be found—in line with the trend in the industry—that an increasing number of top managers had no academic degree, but rather pertinent experience as good businessmen in the "new economy", thereof three members of the corporate board of management and other managers. This would certainly have been inconceivable at the start of the period under review in this study.

It could be seen that the spectrum of companies and segments (e.g. technology, media, IT, food industry, plant construction and engineering, business consulting, etc.) was very broad. If one ignores acquisitions for a moment, clusters can be identified as regards individual companies, such as Philips, Siemens-Nixdorf, McKinsey and Sony, for instance. In the interviews, this approach was strongly criticised in some cases. It was viewed that certain top managers clustered their cronies around them so that a change in

a top management position was very often accompanied by further changes. One top manager from human resources commented on this practice as follows:

*"Very often, candidates are recruited for top management positions because they are well-known, because they worked together in another company. They are not employed because they know something about something, have a specific capacity, knowledge or skills. They are rather employed because they understand and get on with each other. But where is the balance between personal interests, i.e. getting along well with one another) and company interests, i.e. skills?"*

It has already been mentioned that a lot of young top managers joined the group, which imperatively means that a lot of them only had a few years of job experience. This was viewed as a double-edged sword. One of those top managers said in the interview that took place a few days before he left the company:

*"At Deutsche Telekom, they are not afraid to give very responsible jobs to very young people, which is very positive. Some of them, however, shot up too high, too quickly. In one or two years they set fire to themselves."*

Overall, it can be summed up that the diversity of DT's top management as regards age, formal education, previous job experience, etc. increased significantly in comparison with the start of the period under review. In this context, the extent to which individual characteristics were pronounced within the different businesses differed greatly in part. This suggests that apart from the influence of the learning environment on TLOL, different methods for TLOL were deployed. This was already indicated in table 19 as "approaches to TLOL" and will now be considered in more detail in the following individual cases.

## **4.4 The “Fixed-Network” Case**

### **4.4.1 Introduction**

The following case outlines the organisational learning of the top management of the fixed network telecommunication business. This case is unique—also compared to the other cases of this study—as it deals with the top management of that part of Deutsche Telekom that faced the most radical shift from a public authority to a private corporation acting in the highly competitive and dynamic telecommunications market.

The case will show how the top management of the large and mature fixed-network business tried to respond to the loss of its monopolistic position and steadily increasing market pressure. It will also show how it dealt with a series of specific constraints and restrictions, such as temporary limited access to the labour market or the impossibility to make civil servants redundant, which further restricted the fixed network’s top management repertoire of options, forcing it instead to adopt approaches to TLOL such as training or the regrouping of existing resources that subsequently proved to be only of limited suitability.

### **4.4.2 Background to the “Fixed Network” Case**

As mentioned in the profile of the case organisation (see 4.2), the top management of the fixed network business headed an organisation that formerly held a monopolistic market position and acted in a mature, purely national-oriented market. Deregulation of the telecommunications market was then initiated by the German government<sup>100</sup>, with deregulation of the fixed network telecommunications market being 5 or more years later when compared to other future fields of activity of the group. However, the market itself is

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<sup>100</sup> The European Commission decided in November 1994 that the European telecommunications markets had to be liberalised by 1 January, 1998 at the latest.

very closely regulated. One top manager and former civil servant who was interviewed and now heads the department for regulatory affairs at DT's headquarters described the impact of market deregulation on the former top management as follows:

*"We knew that when a real market had to be created, then the government had to put us in a corset. Before, we made a lot of money for the government. We financed the postal service in Germany and even earned more money for other government projects. Yet, the same government caused us so many problems. For many of my peers, this was difficult to accept."*

#### **4.4.2.1 Business Strategy of the "Fixed Network" Business**

As a countermove to the deregulation of the telecommunications market, the newly established top management of DT Group defined the most important objective of the fixed network business to be to minimise the loss of market share intentionally aimed at by the federal government and the regulatory authority (Blank 1996, Blutner 1996). With reference to high internal cost structures, competencies and the degree of familiarity of Telekom, it was evidently a simultaneous goal in this context to not become embroiled in a ruinous price battle with the competition. To this end, efforts were made to offer the customer more value for the same price (e.g. higher bandwidth, more or additional functionalities, greater customer proximity through more shops, brand image, etc.). The guideline of the business strategy in fixed network business was thus to pursue a quality leadership strategy in the premium segment.

In this situation, the DT Group was faced with the new competition, which pursued a clear cost leadership strategy to which an excessively large gap could not be allowed to arise, as well as the regulatory authority, whose pricing requirements for invigorating competition had to be complied with by Telekom. As the drop in prices in Germany in the wake of the liberalisation of the fixed network telecommunications market in 1998 was significantly sharper in comparison with other countries (see: Frühbrodt 2002), this was

also a decisive factor for the new strategic alignment, together with the knowledge of where one stood in terms of costs.

So what was the result of these developments for the top management of the fixed network business? As DT corresponded in its early phase to fixed network business and its headquarters (the newer businesses did not yet exist at that time), the strategic challenges the fixed network's top management had to face largely corresponded to what was already described in section 4.4.2 as cultural change, strategic realignment and fundamental re-organisation towards an economical, profit-oriented, efficient and more internationally aligned organisation. The love of technology that extended all the way to the top level consequently had to make way for more committed customer orientation and goal-oriented market management. The establishment of a sales structure, customer segment management and marketing and the associated know-how was absolutely imperative to this end. And, last but not least, the top management had to find ways to achieve greater market proximity, flexibility and adaptability for the fixed network business (Blank 1996).

#### **4.4.2.2 Top Management and Organisation of the "Fixed Network" Business**

This was a real challenge for the top management who—as elaborated earlier—headed an organisation that primarily distinguished by its size (in 2002: 25.4 billion Euro sales and 148,900 employees), its strong local presence, its pronounced division of labour, the complexity of its routines and structures and languid administrative processes.

At the same time, the fixed network business was the "principal heir" of the legacy of the former "public authority", which became more than evident from the assignment of the technical platforms and the bulk of the civil servants (in 2002, these still represented 50% of the workforce), who enjoyed state-guaranteed employment for life. Consequently, the

company culture in the fixed network business remained strongly influenced by the old structures of the civil service, which not only permeated the fixed network organisation, but also its top management. After all, virtually all top managers were civil servants, at least up until the group's privatisation. Therefore, the top management also largely displayed the characteristics described earlier (see section 4.3.1, i.e. age > 50 years, usually technical training, higher tenures, generalist orientation through job rotation within the group).

Consequently, there was very little know-how or experience in sales, product management, marketing, finance and the international market.

Likewise, the factors of efficiency and cost orientation that were now necessary (see section 4.4.2.1 on business strategy) were evidently not strongly anchored at first in the fixed network business's top management that was initially hallmarked by a very strong technological orientation. One member of the board of the fixed network business attributed this to the different control mechanisms of a public authority in comparison with those of a private sector company. He explained:

*"When I came to the 'Bundespost' there were civil servants in the important management positions, the entire system was oriented towards stability and the company was aligned with personnel and human resources. In those days, this was the real controlling and not business administration. The management simply delegated budget planning to any old clerk. Nobody was interested in it. Even today, cost centres are not completely managed via budgets. Nevertheless, today the times have changed. At the end of the business year, you have to show to your boss value you have added to the company down to the last penny. That is the benchmark today, not like in the past when it only mattered how many people were under your management."*

An externally hired top manager in sales apparently had similar experiences and reported in the interview as follows:

*"I was astonished to see at the beginning of my career here that there was nobody of my peers who was really interested in the planning of budgets. Often this was handled by a clerk and often funny things happened in your planning. For instance, I had a rise in my personnel costs of 16% without having increased my headcount. None of my colleagues was able to explain that phenomenon to me, or why my budget was charged with so many overhead costs. Apparently it was rare for a manager to raise a question or critical discussion about these issues. And then we wonder why we have problems with our cost situation?"*

A top manager heading a technical department of the business put it in a different way and attributed it to the image and pronounced technology orientation of the earlier public authority Telekom and its civil servants:

*"Earlier, most of the staff at Telekom were engineers. They made telephones that could drop from 10m but never broke. The chief aspect back then was quality. Telekom always acted according to the principle of "good and expensive", and we sought the best possible solution together, even if it wasn't always feasible for price reasons. When it came to quality, we had an excellent reputation. We were well known for our quality. And even the management regarded the costs as less important than the quality."*

This suggests that top managers at that time were not used to assuming entrepreneurial responsibility. Or to put it another way like a member of the board of the fixed network business:

*"Accepting responsibility and not having the security net in place at all times. This was the major change for our former top civil servants."*

However, despite all mentioned obsolete patterns of the former civil service culture, the fixed network organisation obviously also disposed over not only the aforementioned quality but also the mastery of complex telecommunications systems and technical platforms, as well as in the serving of a mass market and the associated handling of



complex processes. This was described by an externally hired senior manager in sales (fixed network) as follows:

*"What fixed network business, i.e. the "old Telekom", is really good at is the organisational handling of mass telephony. However, that doesn't mean that they had a handle on the processes. That functions on account of experience. It works because everybody up to the very top of the organisation builds a network. Normal, production companies have a clean structure, but not us in the fixed network business. A lot of money could be saved."*

However, this suggests that, in view of the necessary organisational changes, the utmost challenge for the newly hired top managers was initially to understand the process flows themselves before they could be designed to be more efficient without taking incalculable risks

As shown, the top management of the fixed network business was urgently in need of an entrepreneurial mindset and the competencies mentioned above, in order to transform the old, fixed network organisation—characterised as it was by public authority structures—into a customer-centric and profitable private enterprise operating according to economic standards.

#### **4.4.3 Approaches to TLOL in the “Fixed Network” Case**

The approaches to TLOL in the fixed network business will be considered in two different periods of time—the first before, and the second after DT's privatisation in 1995.

The reason for this is that the fixed network business was under a legal constraint that prevented external growth as well as recruitments from the external labour market until privatisation and lacked any options to dismiss or detach individual top managers from the rest of the top management. Due to their status as civil servants, they were protected and privileged by corresponding laws and regulations.

Therefore, with no access to external resources, the fixed network's top management was not only obliged to make do with existing knowledge and resources in the first phase prior to privatisation, but also had to make use of all appointed managers at top level. The latter meant that in the absence of sanctioning options, those top managers also remained at the top of the organisation who were not ready or able to unlearn inadequate practices and/or learn new things.

So DT's privatisation and by it the removal of the corresponding legal constraints invoked a whole new dynamism, which is why the top management's approaches to learning are now appraised in the two different time periods mentioned.

#### **4.4.3.1 Approaches to TLOL prior to Privatisation (1990-1995)**

As mentioned above, the top management of the fixed network business was obliged in the early phase of its development to make use of existing resources and knowledge. In this context, the top management pursued both off-the-job and on-the-job approaches to learning, as will be shown.

##### **Top Management Training**

As the fixed-network business had a long tradition in terms of off-the-job training (compare section 4.3.1) as the "principal heir" of the legacy of the former public authority, the decision was made to invest in a corresponding training offering for the top management. In 1991, a specific training course called "*Nach-Diplom in Unternehmensführung (NDU)*" (continuing studies in business management) that was comparable to a part-time executive MBA programme was initiated by the main department for human resources development. At the same time, this course was offered to top managers at DT's headquarters. The course curriculum was discussed in depth

with the members of the management board and the implementation of the programme was approved. The curriculum discussions were preceded by extensive scans of the individual top managers. Presumably to nobody's surprise, the assessment centres that lasted up to two weeks had revealed particularly strong learning needs on the part of the fixed network's top management in virtually all business management fields, especially finance and all market- and customer-related areas.

With a duration of several years and week-long attendance phases for the participating top managers, the NDU programme lasted until 1993 and was developed and implemented in cooperation with the University of St. Gallen, Switzerland. However, only one group of top managers attended the training before it was stopped a few months after the start of the first training course by a board decision. In the face of rapid environmental changes, the management board apparently came to the conclusion<sup>101</sup> that it was simply too time consuming, too difficult to integrate in the day-to-day working routine of a top manager and inappropriate for acquiring the necessary competencies at top management level in a timely fashion. As a result, absolutely all training activities for the top management were frozen, even training sessions lasting just one or a few days. From then on, training was restricted to very few individual measures for individual managers.

### **Regrouping around Required Competencies**

Apart from off-the-job top management training which concentrated on the top management alone, the top management of the fixed network business initiated a series of change initiatives in order to learn and adjust to the wider organisation, and with it the top management accordingly. The top managers themselves expressed unanimously in

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<sup>101</sup> This could be derived from corresponding interview statements of attendees of this training course and representatives of the top management of the HR department.

the interviews that the most important one in the period under review was the Telekom KONTAKT project<sup>102</sup>.

Based upon the described axes for strategic re-alignment<sup>103</sup> and the needs for adaptation, as well as the results of a benchmarking study of large international carriers such as AT&T, British Telecom and Nymex, (Telekom, 1995) the new management board of Deutsche Bundespost Telekom<sup>104</sup> made the decision in September 1992 (Telekom, 1992) to implement a new structure for the management board that was based on customer segments and to simultaneously launch the complex KONTAKT initiative.

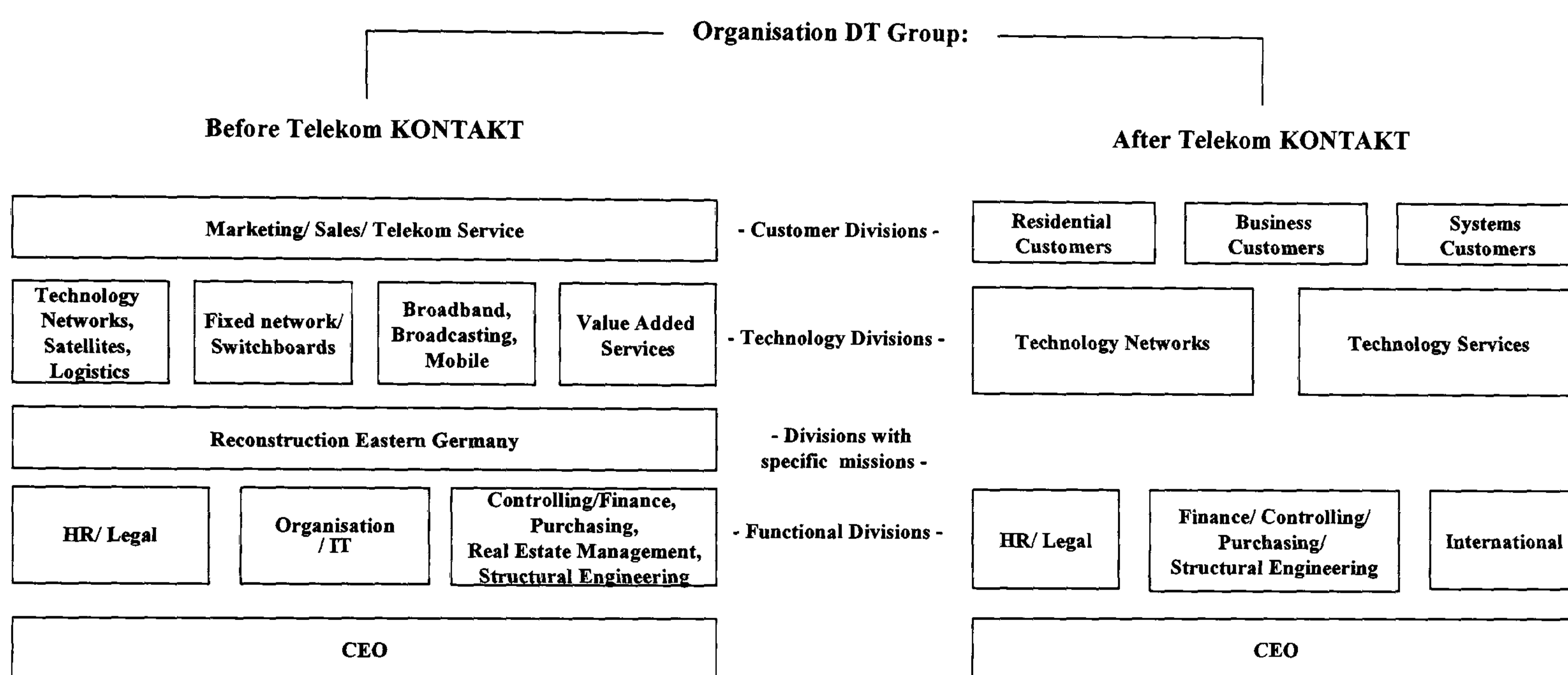


Figure 6 : Organisation of the DT Group Before and After Telekom KONTAKT

The key feature of the "Telekom KONTAKT" initiative (1992–1996) was the regrouping of tasks, responsibilities and available resources around these customer segments, a decentralisation of responsibility and a resulting change in the allocation of power and resources (see figure 6). This was meant to be achieved through the implementation of committed customer-oriented company divisions, the introduction of result responsibility and the promotion of entrepreneurship. In this context, the introduction of additional

<sup>102</sup> KONTAKT is an abbreviation for: "Kompetenz und neueste Technologien als Angebot an die Kunden der Telekom", (in english: competence and the newest technologies as an offering to Telekom's customers)

<sup>103</sup> As DT was made up at that time of the headquarters and the fixed network business only, this largely corresponds to what was described in section 4.2.2.

<sup>104</sup> = Official name of DT at that time.

performance-related pay at the top level (→ management by objectives) was intended to contribute decisively to the latter two goals.

The top managers themselves considered the Telekom KONTAKT initiative to be one of the projects that were particularly challenging for TLOL. One top manager—today heading a corporate function in DT's headquarters—who made part of the Telekom KONTAKT project reported about the laborious project work:

*"... However, to build up a sales force.... There were those "old" Telekom managers and a very small external part, i.e. consultants, who had to make a shift from acceptance of an order to the market. We needed at least 4 to 5 years to do that! Also, the old mindset of responding to the constitutional requirement to provide infrastructural service had to be replaced with profitability and financial transparency. It was necessary to create pressure at that point and to oblige top managers to overcome this old way of thinking. Financial incentives alone were not enough to achieve this."*

It seems, however, that this was not just a question of expert knowledge, but rather of the readiness for change. The responsible manager of the OD department recalled the following:

*"Before 1995, there were a lot of top managers or high-ranking civil servants with a high level of expert knowledge but with an enormous amount of inertia. This resulted in long-lasting, long-winded fights. Drastic measures were necessary to bring these fights to an end. Some of them simply didn't want to understand what it means to trust others and to work in a team. They had to leave."*

In addition to the challenges regarding content and the personal readiness for change, the shift of power from the minister to the management of the board also left its traces. This brought about a change in the decision-making process so that decisions from now on were team decisions. The latter was obviously a completely new experience for DT's

top managers, who were apparently not used to such complex decision-making processes. A former top manager of a technical department explained:

*"When you compare how decisions were made in former times and today, you can see that decision making became much more complex. Now we have draft resolutions for the board of management where everybody has to make a statement—real orgies of written consents. In former times decisions were made quicker. In the end, the minister decided, even very important things. Now we have board and team decisions."*

The statements of the interviewees above, as well as the duration of the KONTAKT initiative (5 years!), suggest that this approach to TLOL led in the right direction but was very time consuming, just like top management training. On the one hand, this can be attributed to a lack of fundamental expert competencies, which could only be compensated for to a limited degree through consulting and making decisions on a broader basis (i.e. team decisions), as illustrated in the example of establishing a sales force. On the other hand, change and decision making processes were evidently seriously impeded and delayed by the lack of options for sanctioning those top managers who resisted the change and stuck to their old behavioural patterns with supreme stubbornness.

#### **4.4.3.2 Approaches to TLOL after Privatisation (Starting from 1995)**

As mentioned in the introduction of this section, the top management's repertoire of potential methods for TLOL increased significantly with DT's privatisation.

##### **External Recruiting**

After privatisation, the abolition of the legal limitations now provided the possibility of recruiting external staff and to fill identified positions with external candidates.

Although compared to the other businesses, external recruiting remained at a much lower level in the fixed network business, it was obviously indispensable in order to acquire new

professional knowledge at top level. A senior manager heading a technical department in the fixed network business made the following statement in the interview:

*"External recruitment on a senior level has enabled us to quickly enlist new competencies. Many external appointees have better credentials in terms of management and profit orientation. They tend to be more hesitant about exhausting budgets, meticulously calculating the additional added value which the resources applied are likely to generate. In the old "T-Com", however, very little understanding thereof has remained. It took a Mr. X. to come along and say: If you up the rating of these jobs, the cost will be x million."*

The analysis of the CVs of the top managers who joined the fixed network business showed that mainly top managers with a background in business administration, finance, marketing and sales were hired. As could be seen from the interviews, these external hires clearly contributed to creating new impetus, but did not raise major integration problems. The age and experience of these managers possibly contributed to this effect, as the external hires in the fixed network business were generally not younger than 40 years, compared to the external hires of the new businesses. One interviewee—a long-standing executive and himself a former civil servant—recalled the situation in the fixed network business as follows:

*"There are two basic types of people. There are those in their early 40s to mid-50s with industry experience. A number of these possess a strong pioneering spirit and have done and still do many unconventional things. And then there are the civil servants, who want to achieve things, but still regard many things as totally strange and are not always particularly professional. However, some of these dispose over outstanding technical expertise and an unbelievable knowledge of how our company functions. Both complemented one another excellently, but there were still very few from outside."*

It was reported by interviewees (annotation: top managers as well as representatives of the HR department for the top management staff) that external recruiting at that time

served above all the replacement of those top managers who were not ready to learn and the dismantling of encrusted structures. An externally hired top manager heading the fixed network's legal department explained the underlying difficulties for the former civil servants as follows:

*"I think there is one particular point in this case. The contract the employer and the manager had agreed upon before all that change had been broken by the company. Those managers who once decided to work for Deutsche Telekom and its preceding organisations often made a decision for their entire professional life. They had a certain idea in mind when they started working for the company. They had an idea about the company's values and culture and the 'rules of the game'. Suddenly everything changed... Their status, the rules for the evaluation of performance or career development, etc.. But those who insisted on their peacock feathers failed."*

However, after many years of partially wretched experiences, particularly within the scope of the Telekom KONTAKT Project (compare previous section), the top management's receptiveness for new developments as well as the availability of specialised expert knowledge at top level was highly needed and now given a high priority. The positions at which personnel changes had to be made to this end became exceedingly clear in the wake of the long duration of the Telekom KONTAKT Project.

It could be observed that the trend towards external recruiting in the face of the liberalisation of the fixed network telecommunications market and increasing change intensified somewhat up to 1998.

The top managers of the fixed network business themselves explained the phenomenon in the interviews with the fact that external hires started allocating their cronies around them at the expense of internal top manager's career prospects. This could, however, only be partially confirmed by interviews and the analysis of CVs.



DT's top managers outside the fixed network business, such as a top manager of DT's headquarters (formerly in the fixed network business) provided a different explanation for the further increase of external hires:

*"One does not go elsewhere or resort to people outside of one's own department boundaries for fear of taking an unacceptable risk. As a result, valuable opportunities to become familiar with other areas of the business and other perspectives are missed."*

Six other interviewed top managers attributed the increasing external recruiting to the permanent restructuring of the fixed network business and simultaneous continuous staff reduction—also at top level—which resulted in rivalry and competition between top managers. Just as will be shown in the systems case (see section 4.6), in the absence of a clear internal successor or candidate, external top managers were often the *tertius gaudens*. A top manager in HR commented as follows:

*" Concerning internal candidates for top management positions, only their weak points and not their strong points are perceived. This is simply due to the fact that they are well-known. In comparison with external applicants, an excessively strict standard is applied to our internal people. Top managers also worry when in doubt that people below them could be promoted and be on an equal footing with them. An external recruit is preferable in such a case."*

Despite the problems raised, external recruiting was viewed by all interviewed top managers of the DT Group to be an appropriate and very important strategy to secure the requisite competencies at the fixed network business's top level at short notice.

## **OD Projects**

It could be seen from the presentation of the responsible HR manager on the occasion of an internal group HR conference beginning in 2003 that 13 major restructurings were

initiated and realised in the fixed networks business between 1995 and the beginning of 2003 alone<sup>105</sup>. In this context, an increasing frequency of such measures could be observed in the wake of the liberalisation of the fixed network market. Some of these restructurings were seen as a logical consequence of, or an attempt at correcting or improving, the Telekom KONTAKT project. For instance, the separation of private and business customer branches (KNL) was completed within the framework of KONTAKT in 1995, only to be reversed again in 1999 as a result of the "PK/GK KNL" project. A further group of initiatives and projects aimed at cost-cutting and staff reduction followed. Indeed, virtually everybody interviewed expressed surprise at the long list of projects. Some top managers—even those with a long affiliation with the group—evidently had difficulty explaining the goal and sense of individual projects. One top manager from HR commented on this rather self-critically as follows:

*"Some of the projects launched made no real sense. Sometimes you got the impression that somebody just wanted to mark his territory."*

A representative of DT's organisation development department explained it in a different way:

*"Telekom never gave itself and its managers and employees the necessary time to let something sink in. Nobody knew if something would have really yielded results. It had immediately been changed again."*

This is also confirmed by a comprehensive auditing report (DT internal audit report, Nov. 27, 2002, page 71) on restructurings in the fixed network business that were initiated on account of increasing deficits in motivation and identification on the part of the workforce.

It is stated in the report that:

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<sup>105</sup> No less than 13 large restructuring projects could be identified in the fixed network business in the period from 1995 to 2003. In detail, these involved the following projects: Telekom KONTAKT, 1995: KNL; 1996/97: ZAT, 1999: PK/GK KNL; 2000: WENN, ZNI; 2001/02: T-Com classic, T-Networks, SLIM, T-Com Plus; 2002/03: NICE, PRISMA, Ergo.

*"...However, the success of these projects was not appraised and in no instance was a business case developed in advance for any of the measures reviewed. The further planning of measures was not based on any kind of analysis of previous measures."*

Those measures that were initiated by the top management obviously developed a certain momentum of their own. It is probably for this reason that only one of the listed projects was viewed as really important by the interviewed fixed network business's top managers with regards to TLOL. It involves the most comprehensive one, "T-Com classic", which was imposed on the fixed network business as a result of the DT Group's corporate strategy (i.e. the implementation of the "four pillar strategy" (2000-2001)). Although this group reorganisation was originally based on capital market considerations, as shown in the headquarters case (see section 4.7), and was intended not to change the functioning of the group, it ultimately led to a number of lessons being learned at the top level that the group management had probably not intended in this form.

In the wake of the 'T-Com classic' initiative (annotation: part of the implementation of the DT Group's 'four-pillar-strategy'), tasks, responsibilities, decision-making and the management-by-objectives system were rendered more decentralised. Earlier projects had also resulted in a greater decentralisation of responsibility, albeit to a more limited extent. Within the framework of this project, the fixed network business was now transformed into a separate "line of business" called "T-Com". In this connection, a dedicated divisional management board was implemented for the fixed networks business, as well as new systems of supervision and a new organisational structure. This resulted in an overall further reduction of the number of top management positions within the fixed network pillar. The responsible top manager of the fixed network's OD department described the resultant situation as follows:

*"The four pillar strategy brought about a significant decrease in top management functions for us. Only 6 to 8 posts were left at the board level of*

*the respective pillars. .... Former top managers dropped off from top level and found themselves in a—subjectively perceived—inferior position, i.e. at the 2<sup>nd</sup> hierarchical level, or as a project manager. Top managers realised very strong competition and those who still held a top management position developed a kind of opportunism, i.e. they tried to avoid everything to create friction or to do the wrong things. “*

Simultaneously, the introduction of the divisional corporate structure meant that the most intense investments, such as acquisitions (e.g. Voicestream) or licenses (e.g. UMTS), were made in other divisions, whose primary task was to achieve growth and develop new markets, whereas the fixed network business as a mature business was more or less assigned the role of being the Group's "cash cow".

This new division of tasks within the Group was evidently equated by the fixed network business's top managers with a very difficult to accept downgrading of their earlier positions, contrasting severely with their perspective of T-Com's actual in-house and external significance. Their displeasure and frustration regarding this situation were expressed according to statements made by the organisers at one of the regular meetings of the so-called "(Top) Leadership Programme" on February 5, 2003. This meeting involves a regular meeting of a formally defined group of T-Com's top managers and, according to a board member, has the purpose of working on current and strategic issues and achieving a stronger level of involvement, commitment and accountability for the fixed network's top management. One interviewed top manager from the commercial division of the fixed network business referred to that meeting as follows:

*"In T-Com we try to demonstrate that we have a future, that we are not only the cow which has to be milked. Sometimes we feel like the group's grubby urchin—we have the image of a company in liquidation. We have already made so many staff redundant. I would like to see the other divisions do that. We have to try to get away from this image—with new services and products. Yesterday during the Top Leadership Forum, we discussed the attentiveness*

*of our corporate management board. We have the impression that everybody else is more important than T-Com. In the view of our contribution to the business results and our external image this is not justified. Here, T-Com is still the heart of Telekom."*

The frustration expressed in the statement might also be partly attributable to new forms of intra-Group cooperation, which places the four business lines of the Group on an equal footing despite considerable size differences in the businesses (see section 4.2.4), be it in terms of the business volume or the number of employees. This again is frequently regarded by the respective top management as a downgrading of the importance of the fixed network business and a source of conflict with the other businesses. One senior manager of T-Com who was personally affected by a downgrading explained this in the following words:

*" The weighting of the pillars compared to the central units has changed. ... It is—from my point of view—extremely difficult to consider T-Com and T-Online as equally matched [very excited]. We are not equally matched!"*

Regardless of this, the fixed network business pillar—as the largest line of business and the owner of the technical platform in fixed network business—continued to maintain numerous technical and process-oriented interfaces to the other divisions, with whom partly severe conflicts now arose at the top level. These might be attributed in part to the aforementioned aspects. They were reinforced by conflicts of interest between the corresponding divisional top management groups which were triggered by the divisional group organisation and cultural differences. Thus, the implementation of 'T-Com classic' and the entire four pillar strategy contributed to a worsening cooperation of the DT group's top management.

### **External Acquisitions**

An additional attempt to develop the corresponding competencies at the top management level and the organisational level involved external acquisitions. Since 1996, Deutsche

Telekom has made a series of acquisitions in the field of fixed network telecommunications, e.g. in central and eastern Europe. Although numerous acquisitions were made, it could be seen that *"internationalisation had only a limited impact on the top management"* (quote of the top manager heading the strategy department) and was not really considered as an important step in the evolution of the top management. Among other things, this was made apparent in fixed network business by the fact that many top managers already lacked sufficient English language skills. And even when English was declared to be the official corporate language, day-to-day business was obviously conducted in a different language. It seems, however, that the most critical point about the internationalisation was that the acquisition strategy remained unclear and only very few top managers were involved in the corresponding activities. One senior manager explained this as follows:

*"As far as our acquisition strategy is concerned, we have to define clear fields of expansion, i.e. where we wish to commit ourselves, technically, spatially, etc. That should have already been communicated a long time ago. Today, we have to manage our shareholdings in central and eastern Europe without such a strategy. If the decision is made to become a European carrier, then we should work towards achieving synergistic effects between the shareholdings. But if our focus is only on mobile communications, for instance, then we would consequently also have to sell our holding in fixed network business. Yet these companies have to remain independent to this end. And those are totally different approaches."*

On top of that, it could be seen that most top management positions of subsidiaries were held by local managers who obviously had very few opportunities and necessities to meet with their peers in Germany, and vice versa. Those top managers who decided despite all adversity to go abroad very often found themselves in a one-way street, which resulted in the long term in the best managers often not going abroad, which in turn reduced the fundamental attractiveness of overseas operations. An international executive therefore made the following recommendation:

*"Do not leave this ebony tower and work abroad. Your career will immediately come to an end. Despite the experience you might make in an international context you will not be taken into account when an interesting post is available ..."*

This suggests that the full potential of these activities for TLOL and "...*the knowledge about how to work in an international context ... was not really exploited.*" (statement of an interviewed top manager heading a central services function of the fixed network business) despite a steadily increasing volume of business that was realised outside of Germany.

#### **4.4.4 Summary of the "Fixed Network" Case**

On the basis of this case, where the top management of the large, mature fixed network business tried to respond to the loss of its monopolistic position and steadily increasing market pressure, it was possible to show that TLOL is strongly influenced by the top management's external and organisational environment and its accessibility to external resources. The case showed how the top management dealt with a series of specific constraints and restrictions, such as the temporary limited access to the labour market, or the impossibility of making civil servants redundant. In detail, the top management did the following things in the period under review in order to learn:

- 1991—"Nachdiplom in Unternehmensführung, NDU (continuing studies in company management)":

This intense in-house training course, which was similar to an MBA programme, was stopped shortly after its launch. It proved to be too time consuming, too difficult to integrate in the day-to-day working routine of a top manager and inappropriate for acquiring the necessary competencies at top management level on time.

- Sept. 1992—Telekom KONTAKT:

A new structure of the management board arranged around customer segments was implemented. Simultaneously, the complex KONTAKT restructuring was launched, which aimed at regrouping tasks, responsibilities and available resources around these customer segments, decentralisation of responsibility and a different allocation of power and resources.

Due to the mandatory and exclusive use of existing resources, this approach proved to be very time consuming, too. This can be partly attributed to a lack of expert competencies, which could only be compensated for to a limited degree through consulting and making decisions on a broader basis (i.e. team decisions), as illustrated in the example of establishing a sales force. On the other hand, it can be attributed to the lack of options for sanctioning those top managers who resisted change and stubbornly stuck to their old behavioural patterns.

After privatisation in 1995 and the partial removal of legal constraints:

- Moderate external recruiting:

Replacement of those top managers who were not ready to learn by external hires. Dismantling of encrusted structures and increased input of specialised expert knowledge at top level. External recruiting reached its peak in 1998 due to increasing rivalry between top managers and due to people starting to allocate positions around them to their cronies.

- Since 1996—external acquisitions:

Deutsche Telekom made a series of acquisitions in the field of fixed network telecommunications. However, this had a limited effect on TLOL as the acquisition strategy remained unclear and there has only been a low mix of national and international top managers.

- Organisation development initiatives/restructuring:



High frequency of restructurings mainly aiming at cost and staff reductions, especially directly before and after the liberalisation of the telecommunications market in 1998. Furthermore, the group strategy imposed implementation of the fixed network business as a separate line of business, which as a result of differences in corporate culture or conflicts of interest finally contributed—although not originally intended to do so—to a worsening cooperation between the DT Group's top managers. No appraisal of the success of the OD projects and restructurings, which obviously developed a certain momentum of their own. Result: considerable losses in motivation and identification.

The case showed that access to external resources in a learning environment characterised by strong change is necessary, but is not sufficient to ensure goal-oriented learning on the part of top management. Far more, the findings suggest that deliberate, clearly formulated strategic approaches are required that are transparent for the top managers. Otherwise, the increasing pressure of change gives rise to the danger of action for the sake of action, as evidenced by the example of the OD projects and external acquisitions. However, the number of measures implemented and the assessment thereof suggest that top managers in turbulent environments have relatively little control over what they learn.

The case also illustrates the controlling effect of organisational structures on TLOL. This results on the one hand from the design of structures, e.g. the implementation of a sales structure within the framework of the Telekom KONTAKT project. On the other hand, structures evidently also establish the framework for learning processes and control these. As was evident from the "Four-pillar strategy" example (specifically: T-Com Classic), it is apparently of little significance whether the effects that result from these structures are intended or not.

## **4.5 The “Mobile/Online” Case**

### **4.5.1 Introduction**

The following case outlines the organisational learning of the top management in the mobile and Internet business. Compared to the fixed network business, the mobile and Internet business was highly competitive right from the start and adhered to a different set of rules. Initially, the business was a small, albeit rapidly growing business in the period under review. This is reflected in the rapid growth in the size and importance of the mobile/online organisation and its top management.

The case is particularly interesting as the mobile and Internet activities were outsourced at a very early stage of their development to dedicated subsidiaries (e.g. mobile business in 1993), allowing them to develop relatively untouched from the rest of the organisation and its public authority legacy. Against that background, this case will show how the top management of the mobile and Internet business tried to cope with the particular challenges that resulted from the establishment of a new business in a highly competitive and simultaneously fast-growing market in the mobile communications and Internet sector. As both businesses experienced a very similar development in many regards, which is also reflected in the intermittent consolidation of both businesses within the Deutsche Telekom Group at the group management board level, they are appraised together in this section.

### **4.5.2 Background to the “Mobile/Online” Case**

#### **4.5.2.1 Business Strategy of the “Mobile/Online” Business**

Parts of the German telecommunication market—specifically mobile communication and telecommunications services, excluding voice—were liberalised within the framework of

the first postal reform (1990). As the following statements in DT's 1995 annual report show, it was a market with a strong growth potential:

*" Deutsche Telekom was also able to considerably expand its business in online services in 1995. The ... T-Online service ... recorded growth of approx. 257,000 customers in the period under review. In comparison with the previous year, the number of customers of T-Online increased by more than 36 percent to over 965,000. The number of monthly T-Online connections rose in 1995 to roughly 14.5 million, equating to growth of almost 35 percent over 1994" (DT annual report 1995, p. 32).*

*"The mobile communications market will continue to develop very dynamically. Technical progress will allow price reductions and new services, both of which will stimulate the market. In Germany, the number of mobile phone customers is likely to increase over the next ten years from the current figure of roughly four million users to as many as 20 million. For the paging market, growth is forecast from today's figure of almost one million customers to several million in the year 2000." (DT annual report 1995, p. 37)*

The top management's strategic intent was to open up these rapidly growing markets, to constantly develop them and remain the mobile market leader in Germany. The mobile communications market was targeted as the only "one stop shop" with a comprehensive service for mobile communications. The focus of the online business was on developing the new business on the basis of strategic partnerships in the field of online services. In contrast, the competition mostly pursued a cost-leadership strategy in this field, which had to be countered.

So what requirements resulted from that for the top management of the mobile and online businesses? The top management of these two businesses had to play a pioneering role insofar as it had to cope with a completely liberalised and highly competitive, dynamic and young market. In addition to know-how regarding new technologies, standards and business fields, new marketing and sales concepts were primarily intended to assist in

securing market leadership, despite the ever fiercer competition (see DT annual report 1995, p. 36). Another challenge with regards to developing the business involved the establishment and management of a high-growth organisation adapted to the market requirements and equipped with corresponding resources.

#### **4.5.2.2 Top Management and Organisation of the “Mobile/Online” Business**

As elaborated earlier (see section 4.2.2, Blank 1996), the top management of the mobile and online business headed dedicated 100% subsidiary companies. Both subsidiaries were created—mobile in 1993 and online in 1996<sup>106</sup>—in order to bypass the highly centralised, bureaucratic and formal organisation of Deutsche Telekom, which was geared towards the completion of "sovereign tasks" rather than customer service and which was constrained by public sector employment regulations. As dedicated and flexible subsidiaries, these two businesses could develop independently from the rest of the Deutsche Telekom organisation. Both subsidiary companies grew rapidly, the mobile business growing much faster. So achieved the mobile business in 2002—9 years after the spin-off—19.7 billion Euro sales with its 42,000 employees<sup>107</sup>; the online business and its 2,814 employees<sup>108</sup>—6 years after its creation—sales of EUR 1.8 billion (source: annual reports DT Group). Most of the staff in these businesses was hired externally, and as can be taken from the group's age structure (see table below) a strong emphasis was put on the recruitment of young employees and managers.

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<sup>106</sup> "In order to continue this success in the dynamic market for interactive online services, Deutsche Telekom resolved in the year under review to spin-off T-Online to form a dedicated subsidiary, Online Pro Dienste GmbH & Co. KG." (Deutsche Telekom, Annual Report 1995, p. 32).

<sup>107</sup> In 1995 the mobile business had approx. 6,000 employees.

<sup>108</sup> In 1998 the online business had 560 employees.

Business Unit	Average Age of the Employees
T-Online	32.8 years
T-Mobile	35.0 years
DTAG	40.7 years

Source: (Deutsche Telekom 2000)

Table 22: Age Structure of the DT Group

In contrast to the top management of the fixed network business, the top management of the mobile/online business was, just like their organisations, built from scratch. CEOs for the mobile and online business were externally appointed and charged with the mission to develop that new business with a corresponding organisation and management team.

The result was a completely different company culture, which can be illustrated by two quotations. The first is taken from one of the first top managers in the mobile business:

*"We were simply different to Telekom and wanted to show those sad duffers on the other side of the Rhine (annotation of the author: The Telekom Group's headquarters and the headquarters of T-Mobile are both located in Bonn, but on opposite sides of the river Rhine.). This pioneer spirit and the feeling of being different was noticeable everywhere—even at the top level, and also from outside."*

The second quotation from a former top manager in charge of the online business's HR department—herself a civil servant:

*"There was a real sense of starting something new. It was the shared wish of everyone at all levels to develop this business with a huge amount of pioneering spirit, creativity and a truly impressive degree of commitment."*

What the top management of these two subsidiary companies—which could nearly pursue a Greenfield approach—did, however, in order to get hold of the required

competencies at the top level (see section 4.5.2.1 on the mobile/online business strategy) will be considered in the next section.

### 4.5.3 Approaches to TLOL in the "Mobile/Online" Case

As elaborated earlier, the main challenges for the top management of the mobile and online business was to open up these dynamic markets and ensure their constant further development. As mentioned, the top management of these new businesses did not have to deal with existing structures and resources. That explains why the top managers interviewed evidently had only a little idea of what to do with group-wide OD initiatives and regarded these as being of little importance for TLOL. For instance, the CTO—himself one of the few former civil servants in the mobile business—commented on the list of the DT Group's most important OD initiatives as follows:

*"It is striking that most of these initiatives are relatively unknown from our [mobile business] perspective. The least important project was TEMPO<sup>109</sup>. This was an empty cover, a top heavy bureaucracy which had been produced here."*

And he continued with a smile on his face:

*"Imagine, it took one year until I had learned that I had an active part in this project."*

As both businesses involved very young and initially very small organisations whose structure was subject to frequent change on account of the rapid growth, the above-mentioned group OD initiatives and restructurings were not relevant. On top of that there was a limited number of interfaces between the mobile business and the other parts of

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<sup>109</sup>TEMPO stands for "Telekom Erfolg durch Maßnahmen zur Prozeßorganisation" [Telekom success through process organisation measures]. The project (1996-1998) aimed at the establishment of a process-oriented organisation and a greater transparency of how the work is done (Telekom, 1999). Due to process based costing methods and the definition of clear responsibilities this initiative was meant to contribute to the improvement of efficiency and quality (Telekom, 1998).

the group, and the mobile business realised compared to the other businesses only 20% and so a limited share of its sales within the group (see section 5.2.1).

Furthermore, the top levels of mobile and online businesses felt that they had a large degree of discretion, especially in the initial years after the spin-offs as dedicated companies. This is supported by the fact that corresponding to the interviewed top managers from DT's headquarters (here: group organisation and strategy), the top management groups of the mobile and online business were only managed by financial objectives. As a result, the mobile and online top management groups were autonomous when it came to designing routines and the structuring of the organisation. Indeed, at the start the corresponding top management groups even implemented their own brands and their own corporate identity on the market, which occasionally led to outside observers needing a second glance to actually realise that these were subsidiaries of Deutsche Telekom. To quote the top manager heading the group's OD department in DT's headquarters:

*"Mobile was spun off and was therefore not hassled. In the fixed network business, every organisational change had to be approved by the group organisation, i.e. the holding, even up to one year ago. But mobile and also online were always managed as if it were a financial holding and developed fully autonomously."*

As there were no restrictions with regard to access to the external labour market due to the spinning off into separate private companies, in contrast to the other parts of the group, the mobile/online top management could pursue a real Greenfield approach.

### **External Recruiting**

In the interviews DT group's top managers themselves unanimously identified external recruiting as the most powerful method for TLOL in the mobile and online business as it enabled them to enlist new competencies at top level. These it needed in order to

successfully develop and implement marketing and sales concepts, for example. The two subsidiaries benefited from the fact that the external labour market was accessible to the mobile/online businesses, but also from the fact that the mobile and online business had a positive image as an employer, and HR policies and terms and conditions of a private company could be applied from the start. Representatives of DT group's human resources department for the top management staff reported that after the spin-off of the mobile and online business all corresponding top positions at the top level were filled almost exclusively and intentionally with external hires. According to corresponding documentation, for instance, only the CTOs and associated subordinate technical roles were recruited from the parent company. All other positions, including that of the CEO, were filled with external hires. It could be seen that these external hires had a formal education and job experience that was more geared towards business management and international business. The analysis of the top managers' CVs revealed that only the very first externally hired top managers in the mobile and online business were recruited from diverse industries and companies (e.g. media and technology companies, the food industry, the chemical industry, etc.). Later an increasing specialisation on the telecommunications industry and corresponding suppliers as well as the new economy could be observed.

Due to that, the composition of the top management of the mobile/online business very soon differed fundamentally from that of the top management of the fixed network business. A novel situation in DT's history in this respect involved the recruitment of managers without an academic background to the top level of the business. It could be seen from an analysis of corresponding documentation and CVs that both businesses had CEOs and/or members of the board without university degrees<sup>110</sup> but with experience in a start-up company in these new emerging businesses. Apart from the technical

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<sup>110</sup> Annotation: A sales manager and later CEO had an apprenticeship as an industrial clerk, while another CEO had discontinued his psychology studies after 4 semesters.



component of the top management and at times due to legal requirements<sup>111</sup> in human resources, there were no civil servants in the mobile and online business. Just like the organisation they were heading, most mobile and online top managers were young, between 30 and 45 years old, and so in most cases significantly below the average age for the top management of the group of 47.3 years. On top of that, top managers, with just a few select exceptions, had a much shorter tenure in the organisation compared to the fixed network business, which has to be attributed to the creation of subsidiary companies for these businesses and subsequent almost exclusively external recruitment.

An analysis of the formal education of mobile's and online's top management also revealed a clearly greater frequency of qualifications and job experience in sales, marketing and finance in comparison with the fixed network business.

It could be found in interviews with top managers from mobile and online that integrating the new hires at top management level was obviously going well. Due to the new creation of subsidiary companies and the initial clear size of the organisations, a lot of contact was apparently held between the executives and a lot of activities were done together, in the early phases of the two businesses. The task to build something new together also seemed to bond, and new colleagues were welcomed very openly. Further, independent of the affiliated groups activities, it was found that from the beginning, the CEOs of the corresponding businesses invited their executives at least twice a year—often more frequently—to joint meetings—sometimes combined with visiting customers (or similar). Also, workshops concerning team structure and outdoor sessions were held, where executives were given the chance to get to know each other better (source: DT internal documentation on the T-success project, 2002).

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<sup>111</sup> Annotation: Due to legal requirements, the labour representatives (trade unions and works councils) exerted an important influence on the appointment of the member of the board for human resources.

It could be observed that executives communicating amongst each other—possibly due to the more or less same range of age—were using a kind of informal phraseology. Many of the top executives were on informal terms (using the familiar, not the formal, German forms of address), and there were also some friendly relations involved.

The strictly external recruiting for the top positions in these two businesses did not change until the takeover of the affiliate group leadership by the DT Group through a new CEO in 1995. And thus, “*due to insurmountable differences*”—phrased by the manager responsible for the top management HR department (similar, see: Glotz 2001)—the CEOs of the mobile and Internet businesses stepped down and were replaced by external hires again. Single key functions within the management board of the mobile as well as the online division, especially HR, were now definitely filled with “Telekom” managers (i.e. managers from the fixed network business or headquarters). External recruiting was still very distinctive, even while many internal applicants had only been employed with the organisation for a few years.

The member of the board for HR of the online business stated the following:

*“Very often when I hire someone, I do it externally. Externals are meant to bring a fresh breeze and fresh ideas. One assumes that after being with Telekom for 2 years, a lot isn’t being questioned anymore. Admittedly, with internals, one only sees the weaknesses, and not the strength, due to knowing them that well. The bar is set too high compared to the externals.”*

On the other hand the interviewed top managers from the mobile and online businesses reported that the internal practice used to fill vacancies at top level in their businesses with so many external hires made some managers at top level started thinking about other options outside DT Group. Furthermore, as will be shown below, after the IPO of Deutsche Telekom, top managers from the mobile/online sector (incl. board level) for the

first time switched into other parts of DT group (particularly headquarters and fixed-network business).

### **The "T"-Brand**

The interviewed top managers from the mobile and online business reported unanimously that the implementation of the "T"-brand was important for TLOL. This although this initiative was not driven by their initiative but imposed by DT's corporate organisation.

Driven by financial constraints<sup>112</sup> Deutsche Telekom was transferred within the framework of the 2<sup>nd</sup> postal reform as an "*Aktiengesellschaft*" to private sector status on 1 January 1995 (Darbishire 1997, p. 195). A costly privatisation campaign with its key figures the CEO of DT Group in those days—later known as "Mr. Telekom" in the public, the CFO DT Group and the Executive Vice President Corporate Communication was launched in march 1996 and was obviously a 100% success<sup>113</sup>. It went along with the group-wide implementation of the new "T"-brand" which subsumed all products and services, all units and subsidiaries—so also the mobile and online subsidiaries—under one common umbrella brand.

The corporate board of management insisted on the strict implementation of the new brand and resulting communications policy and it could be observed that those top managers who did not respect the brand-strategy had to face the consequences. In the case of the mobile and Internet business who acted up to that time in a relative

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<sup>112</sup> Resulting from the German reunification in 1989 there were enormous financial requirements. About 60 billion German marks were needed to be invested into infrastructure in former east Germany (Büchner 1999, p. 13). Because of the overstretched financial situation of the German government and increasing international competition the Basic Law was changed in order to allow Telekom to raise capital outside tight federal budgets and to engage in international joint ventures from which it had been partly constrained by its constitutional mandate.

<sup>113</sup> Due to the strong demand there was a rise of the volume of shares of 100 Million shares. Deutsche Telekom collected 20 billion Deutsche Marks (instead of 15). 156,051 employees (= 64% of the total staff at that time) became shareholders. After the first IPO the federal government owned only 71.95 % of the total shares.

autonomous way—also when it came to external communications—this resulted obviously in a clash. This can be illustrated by a quotation of a senior manager of DT's headquarters:

*"When the mobile business was outsourced<sup>114</sup> it moved away from the parent company very fast. In an early phase the mobile business developed its own brand and refused to use the T-brand. This ended up in severe conflicts and after that in some changes at the very top of the mobile subsidiary."*

The new "T" brand was meant to become a cultic symbol of the entire Deutsche Telekom group, and apparently no exceptions were tolerated by the group's CEO. A top manager, heading the group organisation of DT's headquarters reported in the interview:

*"In 1996 there was a big fight. Due to discussions about the brands, Telly<sup>115</sup>, ...etc... Mobile's CEO had to leave. The prices also didn't match anymore. That's when the pricing was established, and that's also when total freedom for Mobile's top management vanished."*

In the interviews some of the top executives remembered that day in October 1996 in great detail, when DT group's CEO explained the immediate departure of the then CEO of the mobile division—from the perspective of the employees and executives, a leading figure, who was of great meaning during the establishment of the company from the start. Several interviewees even used the term "October Revolution". Obviously this incident left a large dent in the development that had taken place up to that point in the mobile business<sup>116</sup>. A mobile senior manager put it in a nutshell:

*"We were clearly confronted with the fact that: we are part of the Telekom, and are seen as such from the outside looking in. We can not isolate ourselves from that."*

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<sup>114</sup> Due to the earlier liberalisation of the mobile communications market the mobile business was outsourced in 1993. It developed relatively independent from the rest of the group.

<sup>115</sup> 'Telly' was brand used by the mobile business at that time.

<sup>116</sup> Annotation: It has been reported that the entire management of the mobile department fell into a state of lethargy. After DT group's CEO had explained to the mobile's executives who were used to an enormous workload, that "another wind would be blowing around here" (statement of a mobile business top manager) it was actually showing all the way up to the top management, that motivation decreased and working hours were from now on strictly adhered.

A similar development could also be seen in the online division, even if due to the later creation of the online subsidiary, not till a later point in time. T-Online's route to the stock market in early 2000 and the establishing of an incorporated company with its own brand was apparently the last triggering moment. In this connection also, more conflict arose due to the appearance and the arrogated freedom of the management. These conflicts led to the change of the top management of T-Online. Glotz (2001) a contemporary witness and former member of the supervisory board of Telekom, described the fights over power between the top management of T-Online and the management of the parent company in his book *"Der Weg der Telekom"* (*The Path of Telekom*), and quotes the CEO of Telekom as follows:

*"I also fire managers if arrogance suddenly makes them start believing in themselves so much that they think that the feeling for the future will come by itself."* (Glotz 2001, p. 113).

After the first shock and grief over the loss of the high autonomy had abated slightly, chances for the top managers arose from the mobile as well as the online business of these very successful group-brands. In the interviews, some online and mobile top managers explained that even if there was still a certain "administrative authority" sticking to the image of the parent company, the introduction of the new T-brand had helped to install this brand, which—from an external as well as internal perspective—was associated with *"...a new, powerful vision and a new attractive image of DT's future"* (quotation of one interviewed senior manager of the fixed network business). This combined with the financial strength of the large Deutsche Telekom group, whose core competence still was seen in technology and quality. Through this, the mobile/online businesses' top management could obviously increasingly identify itself. The T-brand therefore stood for the mobile/online top management for visible integration in and affiliation into one large group, that stood for new chances and financial reserve.

Especially from the perspective of non-mobile and non-online top managers, the introduction of the “T-brand” and the resulting development had strongly nourished ambition and will to change and added to building a bridge between the “old” and the “new” generation of top managers, and so towards a new quality of executive work that made use of competencies of both “worlds”. This is supported by an increasing number of staff fluctuations on the top management level<sup>117</sup> of mobile/online in other parts of the group and vice versa that could be stated at that time.

### **External Acquisitions**

At the end of the 90s, Deutsche Telekom entered a very active period of purchasing in order to steadily expand its international reach. New subsidiaries in the Internet sector were bought in France and in Spain. In the mobile communications sector, acquisitions were mainly made in Central and Eastern Europe but also, for instance, in the Netherlands, with the acquisition of One-to-One in the UK or the acquisition of Voice stream/Powertel for an astonishing 60 billion deutschmarks in the United States.

However, as far as TLOL is concerned, acquisitions remained obviously of limited significance. It could be thus found that the most crucial point about external acquisitions was that the underlying strategy remained unclear for most of the concerned top managers in the mobile and Internet businesses. Decisions on the partly costly acquisitions were rather viewed as isolated decisions of the CEO. As a consequence of their lacking involvement in the corresponding decisions, it seems that it was very easy for mobile’s and online’s top management to withdraw responsibility from them for the difficult financial situation that resulted from the costly investment as well as the integration of the corresponding acquisitions.

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<sup>117</sup> This includes some board members. Source: Corresponding documentation of the top management HR department.

Their sceptical view became evident in the fact that these acquisitions were first of all, i.e. until a change of the group's CEO in 2002, led like financial investments. As a result, there were no common activities or meetings between the top management in Germany and the international acquisitions so that the top managers did not even know each other. The top managers' scepticism can also be illustrated by the following quotations of the financial top managers of the mobile and online businesses:

*" ... As it was the group's CEO who decided to do it although it was a mistake, it was very easy for the divisions to deny responsibility. They didn't make the decision.... "*

*"Internationalisation was not clearly defined and so was more likely detrimental to Deutsche Telekom. It was the zeitgeist of that time. Maybe if the divisions had been in charge of internationalisation, the world would have been different now. But by virtue of the centralisation of these activities in the headquarters... On top of that the pursued strategy could obviously not be financed."*

#### **4.5.4 Summary of the "Mobile/Online" Case**

On the basis of this case it was possible to show how the top management of the mobile/online businesses took up the challenge in the environment of a major corporation to expand and to develop in the dynamic market. A main precondition was set by the spin-off of the mobile business in 1993 and online business in 1996 into autonomous incorporations, which could develop relatively untouched from constraints of the rest of the group's organisation and its legacy as a public corporation.

To sum up, the following methods for TLOL were deployed:

- From the start (i.e. mobile in 1993, online in 1996):

Strong external recruiting in order to enlist required new competencies at top level. Strong specialisation on telecommunications industry, suppliers and new economy and a strong

emphasis on specific expert knowledge in marketing, sales and finance. Obviously successful integration of the newly hired top managers and the establishment of an overall team spirit supported by common meetings, teambuilding...etc. and a certain homogeneity of the team (in terms of, for example, age).

- 1996: Group-wide implementation of the new "T-brand".

Firstly symbolises the re-integration within the group and the circumcision of former stages of freedom. In retrospect, it also stands for an increasing identification with the Deutsche Telekom group and the developmental possibilities within and through the group. In the aftermath it comes to early movement among the staff on the top level between the mobile/online business and the other parts of the group.

- 1999: Increasing acquisition activities. Very high investments were made.

However, top management of the mobile/online business was not sufficiently involved in decision-making. Isolated decisions of the CEO led to the mobile/online business not or only partially feeling responsible for the aftermath of the acquisition and integration. Limited effect on TLOL.

The case showed, that not only planned methods for TLOL were important. More so it highlighted the meaning of structure (i.e. the spin-off) and symbols for learning. So led the 'T'-brand—even if not necessarily by choice, to a larger identification with Deutsche Telekom, which in time also showed through being open for job offers within other parts of the group.

Through the strategy of acquisition the case shows, how important the integration of the top-management in the development of the strategy and the decision process is. Without a clear structure and co-operation towards the decision, important opportunities of learning might be passed up on.



## **4.6 The “Systems” Case**

### **4.6.1 Introduction**

The third case outlines the organisational learning of the top management of an organisation in the global systems solutions segment of Deutsche Telekom. Just as the mobile and online business the systems case organisation with its focus on the management of corporate accounts was outsourced at an early stage of its development and so could develop relatively untouched from the rest of DT group. The systems business differentiated from the mobile and online business in so far that it had high internal sales (end Sept. 2002: 37.2%, source: DT internal paper, iPF 2002) and had tight interfaces to other parts of the DT group (Source: “Organisation for the future—the project Telekom Kontakt“, Deutsche Telekom, March 1995, p. 19). Therefore it also profited from a certain subsidy of the business and was exposed to lower market pressure compared to e.g. the mobile and online businesses.

The systems case is, however, of particular interest due to an important merger of the systems business with a large IT company, the debis Systemhaus, which led overnight to a high level of diversity at top level. In the absence of a shared integration strategy, the systems case will show that a high level of diversity and lacking behavioural integration at top level can be detrimental for TLOL and even develop a certain momentum on its own.

It is also for that reason and owing to the complexity of the permanently changing systems organisation as well as significant turnover at top management level that in comparison with the other cases the collection of data was more difficult.

## **4.6.2 Background to the “Systems” Case**

### **4.6.2.1 Business Strategy of the “Systems” Business**

By virtue of the success of this model for the mobile business (Blank 1996) and, to live up to the high expectations of key account customers, a subsidiary company called ‘DeTeSystem’ was created in 1994 for DT’s systems business (see annual report DT group 1995). The systems mission was to offer tailor-made telecommunications solutions and corresponding services to national and international key accounts from a single source. The systems business portfolio is based upon products and services of DT group which are complemented by additional services and components available on the market into complete individual solutions. Due to the groups high internal cost structure, competence and reputation, differentiation on the market resulted primarily through the quality of the solution as well as comprehensive service, instead of a ruinous price challenge.

The mission to offer worldwide systems solutions from a single source, i.e. to create integrated, complete solutions extending from consultancy (“plan”) to development and implementation (“build”) right down to operation (“run”) for global customers in various sectors challenged the systems top management in many ways. Due to their decentralised organisation, many systems customers and key account customers required constant availability of highly efficient national and international telecommunication networks and services. As a result, the systems business’s top management had to build up a company of international reach that provides a universal and uniform portfolio of high quality products and services beyond national boundaries. Furthermore, the top management had to create an organisation, which corresponded to the specific needs of systems clients and which required in-depth knowledge about target markets and specific sectors also at top level.

#### 4.6.2.2 Top Management and Organisation of the “Systems” Business

At the very beginning the top management of the systems business headed a subsidiary company with ca. 600 employees. Its sales reached ca. 1.1 billion deutschmarks in 1994. In 1995, there were already ca. 850 employees and more than 18% higher sales (compare annual report DT group, 1995). The growth of the systems business continued, even if organic growth compared to the mobile/online business was significantly lower.

Similar to the top management of the mobile/online business, the top management of the systems business was built up nearly from scratch and hired from the external labour market. However, due to the nature of the systems business and its high rate of internal sales, there were much stronger interfaces—above all with the fixed network business. It is for that reason and the required technological competence that from the very start of the systems business numerous technological top management functions were filled with “Telekom” managers.

As elaborated in previous section, the top management of the new created systems subsidiary had to face a series of challenges which one of the systems business top managers summed up in the interview as follows:

*“It was clear. We needed a highly professional, international team with the corresponding knowledge of our business at a global level, with a good international network and experience of overseas markets. But international top managers were missing. And an international strategy? ... We had to follow the customers!”*

Years later in 2002 after numerous mergers and acquisitions—the most important one was debis Systemhaus in 2000 with 20,830 employees (Source: DT internal presentation; Vorstandsklausur HR of 18 Sept. 2001)—the systems business realised with its ca. 43,000 employees more than 11.3 billion euros sales and was present in 23 countries. The systems business thus occupied the second position in Europe as telecommunications and IT service provider.

However, resulting from the merger with debis Systemhaus, Systems' top management implemented a complex, permanently changing matrix organisation (source: *Organisation Chart T-Systems, Organisation data and information management DT group, July 2001*) consisting, first of service lines <sup>118</sup>, secondly of a regional organisation <sup>119</sup> and thirdly of business lines <sup>120</sup> which were oriented towards customers and sectors and stood for universal account management at the systems business <sup>121</sup>.

However, the poor performance of the systems business (e.g. in 2002 annual result before tax: -2 billion euros; source: annual report DT group 2002) and the complexity of the Systems organisation apparently only reflected the situation that happened at top management level, and what a senior manager who joined DeTeSystem in 1994 described in the interview as follows:

*“When I first came to DeTeSystem, I was slightly prejudiced: civil servants ... etc.. That was not approved. The motivation and the dedication of the people at the top didn't stick back—quite the opposite was the case. One wanted to accomplish something together, to make a move, and to push sophisticated products and concepts. This wish grew stronger in the first years of the DeTeSystem... At the latest after the merger with debis Systemhaus a lot had changed. The company grew rapidly—too rapidly. It became culturally extremely difficult, severe conflicts arose between top managers and the organisation changed constantly. So often, that the top managers had no time anymore to look after their markets and customers...”*

Although the systems business at its beginning was relatively similar to the mobile and online business, the interviewed top managers—regardless of their position in DT group's

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<sup>118</sup> e.g. consulting, systems integration, desktop, computing and network services

<sup>119</sup> i.e. North Europe, South Europe, Central & East Europe, Americas, Asia & Pacific.

<sup>120</sup> e.g. manufacturing industries, telecommunications/ carriers & service providers, Banking, Public & Health Care Sector, Retail & Distribution, Travel & Transport, Insurance, Media Broadcast.

<sup>121</sup> Whereas the service lines reflected the products and services and were responsible for a universal and uniform portfolio of products and services – extending beyond national boundaries, the business lines were responsible for the development of solutions from the entire product and service portfolio on behalf of specific sectors.

organisation—designated the company and management culture of the systems business as “difficult” or even “chaotic”. What led to that difference and dramatic change will be looked into closer in the next section.

#### **4.6.3 Approaches to TLOL in the “Systems” Case**

The main challenge for the Systems top management was to get hold of the corresponding competencies which were required to build up and run a sales organisation and key account management (KAM) for national as well as international business accounts. On top of that, and as the systems business was a provider of systems solutions with a significant share of internal sales (74%, source: DT internal presentation: “Regeln der Wertschöpfung” [Rules of Value Creation], Jan. 23, 2003), the interface between management and other parts of the group was a critical success factor.

##### **External Recruiting**

Right from the foundation of the DeTeSystem subsidiary in 1994 the corresponding top management made use of external recruiting, with a particular view to sales and KAM competencies which were apparently not available in the DT group but necessary to implement what one systems top manager called “*a new culture of sales and leadership*”. External recruiting was further used to get a few international top managers into the boat, while the top positions, that held strong interfaces within the group, were, according to the former manager of the HR department for the top management staff, filled mainly with group-internal candidates.

The level of external recruiting at top level remained relatively moderate and stable until the start of the phase of intense external acquisitions and the merger with debis Systemhaus (2000). Paradoxically, after the merger with debis Systemhaus the rate of external hires at Systems’ top management level increased enormously despite the

realisation of synergies and a decreasing number of top management positions. Nearly every hire was made externally. The top managers themselves, but also OD and HR managers attributed that development in the interviews mainly to power struggles, severe competition and rivalry that followed continuous further restructuring and reduction of management positions. Due to mistrust and to “*maintain the political balance*” [quotation of a systems top manager in charge of a business line] one rather took up the option of external preference than either debis—or Telekom—top managers. Externals were the “smiling third party” in this situation.

As a result at the end of the period under review the typical systems business top manager had a technical background in electrical or communications engineering or IT, was around 40 to 45 years of age, and had relevant working experience in the field. This might be attributed to the fact that the systems business dealt with complex systems solutions for key account customers in various industries, which required a certain level of technical expertise and knowledge about customers and markets.

Resulting from external recruiting, mergers and acquisitions as well as a permanently changing organisation, a large number of top managers had a very short tenure in the organisation as well as a short tenure in the position. A senior manager who joined DeTeSystem in 1994 and now holds a new position in the fixed-network business described the result after the merger as follows:

*„The people at Systems? They are a real chaotic bunch. Everyone is running around, and everybody is doing different things. It is quite visible at the occasion of top management meetings. There is no togetherness and no cooperation. Too much politics and too many power struggles, and the staff merry-go-round keeps turning and turning.“*

The same phenomenon could be observed within the scope of regular biannual meetings of a group of top managers, which were organised by the researcher in his active work-

role. On that occasion the top managers of the systems business, without exception, always reported on their new managers, of heavy conflicts at the top level, organisational change and different definition of teams or grading of top management positions. They often complained about the enormous investment of time that was necessary just to secure their own positions and that of their teams in the organisation. The expressed unrest amongst the top management and the entire organisation of the systems business as a cultural melting pot of very different company cultures was also reflected in the high personnel turnover at the top level<sup>122</sup>.

### **International External Acquisitions**

In order to adapt to the increasing globalisation of business customers, to get hold of established business contacts and by that gain access to new target markets and customers, a series of acquisitions were made starting in 1996. However, the acquisitions were triggered by DT's headquarters, and the underlying integration strategy for these acquisitions remained obviously unclear for the systems business top management. What also remained unclear, was if and if yes, how the top management of the new acquisitions should be integrated into the systems business' top management. A systems top manager described the consequences as follows:

*“What failed is the globalization in the business customer sector. The results are rather moderate, if not to say poor. Real chances were given away here. For example Company A\* or Company B\*. Here, the question of integration is still unclear. We don't have a competitive product-portfolio and the particular subsidiaries are not really led. With company A\* for example, I can remember an astonished remark of the CEO, while speaking of a synergetic approach. In the process of acquisition, one had spoken of a financial investment. This explained the wonderment of the CEO about our attempt to intervene actively into the subsidiary and to shorten their rope.”*

(\*annotation of the author: names of the companies not given for confidentiality reasons)

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<sup>122</sup> Annotation: precise figures could not be given for confidentiality reasons.

As a consequence and as neither the corporate nor the systems board did apparently intervene, most of the top managers of those acquisitions continued working more or less in their old way with relatively little connections to the rest of the systems business top management and vice versa. This suggests that in the case of the systems business it was not made use of the full potential that lies in external growth for TLOL.

### **The Merger with Debis Systemhaus**

Particular dramatic consequences of that lacking involvement of the systems top management in M&A activities resulted from the merger of the systems business with debis Systemhaus. A poor integration management and an uncontrolled knowledge drain—also at top management level—were the consequences.

Triggered by a group-wide initiative, the “four pillar-strategy” (2000-2001), which aimed at implementing a decentralised group organisation, the systems business—now called “T-Systems”—was established as the *“prototype of a network-based provider of e-business solutions in the IT/telecoms convergence sector”* (source: Management Report DT group, 2000, p. 49) and the second largest system house in Europe. In doing so, efforts to extend T-Systems international reach were intended to be stepped up significantly.

So much rhetoric; reality painted an obviously different picture. Problems had already begun with that fact that the motivation for this merger and the underlying acquisition strategy was not known or shared by Systems’ top management. This can be illustrated by the quotation of a senior manager of the systems business:

*“The merger with debis? We knew nothing. We didn’t even know what the CEO (of DT group) wanted with debis. Then, suddenly they launched an integration project... “.*



Another systems top manager who joined the systems business in 1995 described the consequences as follows:

*“The integration of the debis systemhaus was poorly managed and ended up in too many changes of a much too complex organisation, too much micropolitics and a lacking common identity“.*

Right after the merger evidence could also be found for a substantial rise of the turnover rate of top managers and key personnel. Against that background the wording of DT group’s HR strategy of September 2000 (source: DT internal strategy paper) seemed quite cynical. It was stated in the document which was titled: *“Only approx. 30% of all mergers are successful“*, that integrated human resources due diligence is absolutely required. Furthermore, the following five typical core-reasons for failure of a merger were identified:

- *“Mismatching company cultures”*
- *“Top management does not pursue common interests”.*
- *“Post-merger integration process fails”*
- *“New formal organisation is too complex”.*
- *“Key people leave the company”*

(Source: DT internal strategy paper).

Corresponding to the interviewed top managers themselves, the mentioned factors were given without an exception. With the merger of parts of the Deutsche Telekom Group with the debis Systemhaus (annotation: made part of the Daimler Chrysler group), two strong company cultures clashed. Heavy conflicts, competition over resources, budgets and positions as well as power struggles at top level between both camps became evident. Many key people up to the very top of the organisation left the company and attempts were made, as shown earlier in this section, to replace them with external hires.

DT internal documentation (HR strategy paper, Sept. 2001) showed that the post-merger project was obviously insufficiently prepared, the new formal organisation—as a result of the very difficult negotiations—was a complex, difficult to guide structure formed of service lines, business lines with regional organisation. It was questioned whether this organisation responded to the requirements as they were derived from the systems business strategy.

Against that background it might not be surprising that top managers throughout the group came as regards the merger with debis Systemhaus to the following conclusions:

*“T-Systems, starting with its top management, is in a disastrous situation.”*

or

*„T-Systems has to sort things out with itself. A clean internal structuring is necessary here.“*

Although the legal integration was formally accomplished in March 2002, attempts to foster cohesion and identification at top management level through common meetings, seminars etc. were, according to the responsible HR manager of the systems business, not made before end of 2002.

## **Restructuring**

External recruiting of top managers, acquisitions and the merger with debis had an important side effect. Numerous change projects aimed at the optimisation of the organisation were initiated by the Systems top management—above all by newly appointed members of the Systems board of management, but also at lower levels. However, in the eyes of most interviewed top managers from outside the systems organisation, these initiatives either served individual purposes or objectives (e.g. drive for self realisation) or had—because they were only pursued with semi-interest and led to little, none or marginal change—rather detrimental effects on TLOL of Systems' top

management. And also an interviewed systems top manager who joined the systems business in 1996 admitted self-critical in an interview:

*“What we expected of the people in terms of change was certainly a cheek, as loyalty had repeatedly been demanded of managers and employees. But when the individual top managers have to continuously fight for their survival in the organisation ... What can one expect here? ... All reorganisations are crazy. The bosses were already thinking about a new reorganisation while the current one was still being implemented. And that on a scale that had never been seen in any comparable company, not at Siemens, not at Volkswagen, etc. It should come as no surprise when the people including direct reports of the board no longer take everything quite so seriously afterwards.”*

#### **4.6.4 Summary of the “Systems” Case**

At its very start, the top management of the systems business developed relatively similar to the top management of the mobile and online business. On the basis of this case it was, however, possible to show that the imposed acquisition of new competencies from outside the organisation is not enough for TLOL to occur. In order to avoid the emergence of undesired learning results or not effective TLOL, the objective and strategy of learning rather needs to be understood and shared.

On top of that it could be shown that high levels of diversity at top management level can be problematic and bear the risk, that the top management is increasingly dealing with itself.

The following approaches to TLOL were pursued by the top management of the systems business. A key determining factor was—similar to the mobile and online business—that the systems business was spun-off in 1994 so that it could develop relatively untouched from the constraints resulting from DT’s legacy as a public authority:

- From the start in 1994:

External recruiting to enlist competencies at top level mainly in the area of sales and key account management, particularly with a focus on international markets. At the beginning moderate, during and after the merger with debis high level of external recruiting.

- Starting from 1996:

A series of international acquisitions were made in the Systems business initiated by DT's headquarters. The acquisition and integration strategy remained unclear for the Systems top management, so that the full potential of these acquisitions could not be used for TLOL.

- 2000:

In the absence of a clear integration strategy the merger of the systems business with the debis Systemhaus overtaxed the organisation. Top management increasingly lost sight of the formulated business strategy and dealt more and more with itself and constant restructuring of the complex organisation resulting from the merger.

## **4.7 The "Headquarters" Case**

### **4.7.1 Introduction**

The following case outlines the organisational learning of the top management of DT's headquarters. The case of the HQ top management differs from the other cases of this study as the top management of DT's headquarters concentrated—per definition—on the development and implementation of corporate strategies. So in contrast to the top management of the corresponding business divisions which concentrated on the pursuit of adapted business strategies the top management of the headquarters aimed at the

harmonisation and the optimisation of business results from a group perspective.

The case will show that the CEO as the central figure with formal power over the individual business units exerts an important influence on TLOL by imposing decisions on the divisional top management groups. This case furthermore illustrates the importance of formal organisation for TLOL.

## **4.7.2 Background to the “Headquarters” Case**

### **4.7.2.1 Corporate Strategy**

The change from state institution to private corporation was formally completed within the scope of the first postal reform (1989). While the previous state institution had followed the main goal of providing infrastructure and telephones as well as general public interest, Deutsche Telekom’s guiding principles post 1990 were customer and result orientation and entrepreneurship (Telekom 1996, p. 4) .

As DT corresponded in its early phase to the fixed network and headquarters, the strategic challenges the headquarters’ top management had to face corresponded to what was previously described in section 4.2.2. This means that the main challenge consisted of the establishment of a market-oriented, competitive organisation that had to live up to the following criteria:

- *“The business is ruled by the market, not by internal routines.*
- *Different clients are treated differently.*
- *Only positive results guarantee surviving against the competition.*
- *Success = financial result + satisfied clients.*
- *Decentralise responsibility as far as possible.*

- *Create entities that are responsible for their own actions and results.*  
(Telekom 1996), p. 6)

After DT's privatisation, which was finally triggered by the enormous financial requirements (ca. 60 billion deutschmarks) for investments in the telecommunications infrastructure in former East Germany, (Büchner 1999, p. 13) capital market forces played an increasingly important role. And furthermore, the major point for the top management was to align the group to the requirements of the shareholders and the financial and capital markets.

This placed new demands on the competencies of the top management, particularly with respect to their financial and presentation skills. Thus, the privatisation of DT and the deregulation of the telecommunications market thrust consistent work on optimising key financial figures and the stock price as well as the representation of political interests and investor relations into the foreground. Increasing the value of the company became an important goal for the HQ top management. A strong brand and appropriate external communication were also meant to contribute to this. The unavoidable loss of domestic market share resulting from the loss of the monopoly would be countered by external growth and acquisitions both domestically and abroad (in contrast to the individual businesses, which aimed for organic growth).

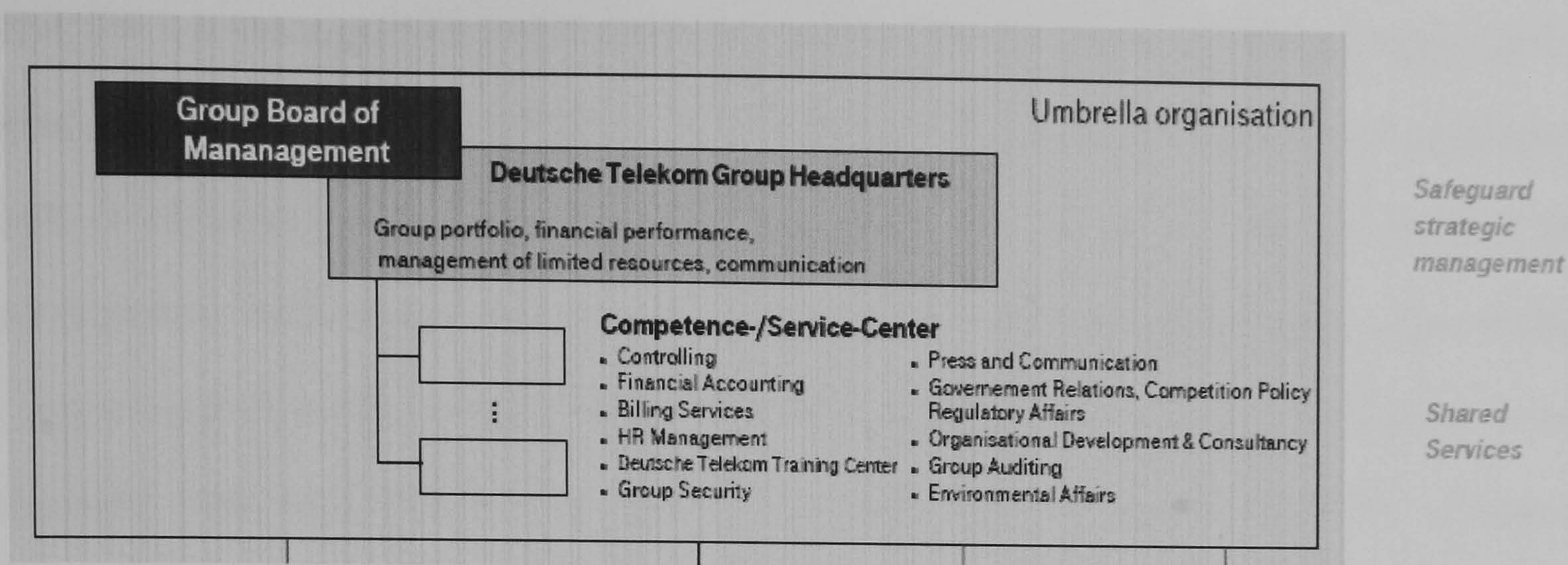
#### **4.7.2.2 Top Management and Organisation of DT's Headquarters**

In keeping with its origins as a bureaucratically-structured ministry, the Deutsche Telekom Group initially set up its headquarters under a parent-company concept. This meant that the headquarters' top management centrally controlled all strategy and operations and centrally managed and monitored all operational implementation. The composition of the top management at HQ followed virtually the same rules as for the fixed network business due to Telekom's past as a public authority and the tight organisational enmeshment (see

(Darbishire 1997, pp. 191-2) As a result, the headquarters' top management was characteristic of the civil service, leading to a large number of managers over 50 with a long average service, a high level of technical qualifications and typical civil service career paths. Due to political interference, there were also some former state secretaries and politicians in HQ top management. There was little financial know-how in the operational and financial areas.

After privatisation in 1995, DT increasingly reoriented itself to market demands and intensified its orientation to customers. As a result, more and more operational tasks and therefore power and responsibility were transferred to the divisions and the divisional top management groups. Consequently, the demands on HQ top management changed fundamentally. The altered competition in the telecommunications market, shareholder and capital-market orientation, the effort to increase the company's value, regulatory politics etc. represented entirely new challenges for the top management, primarily in terms of strategy, finance, representation of political interests and in communication.

These changing requirements were also mirrored in the first fundamental change of its formal organisation, which DT's headquarters experienced in 1998. The group headquarters was defined as an instrument of the board whose task it was to support the board in its management tasks. To these ends, subsequently headquarters should only have functions that "..., are oriented towards overall determination, control, monitoring and coordination of the group units." (source: DT-internal paper, group organisation, May 21, 1999). All other functions were relocated outside headquarters either to so-called central operations or the business divisions. The headquarters shrunk to ca. 5,400 employees.



Source: (DT internal presentation, ZB OG, 2001)

Figure 7 : Organisation of the DT Headquarters

In early 2002, the Group's headquarters was reoriented as a strategic management holding (SMH), and this holding, along with the Group's Board of Management, began further concentrating primarily on strategic and overarching management tasks. The divisions now controlled business operations, and they had full entrepreneurial responsibility for developing their markets in keeping with their business orientations. As a result, DT Group headquarters had been significantly downsized to ca. 1,000 employees end 2002 [further reductions down to 900 was planned in 2003]).

Which methods for TLOL the top management of DT's headquarters deployed to get hold of the required competences and with what results will be considered in more detail in the next section.

#### 4.7.3 Approaches to TLOL in the "Headquarters" Case

Just as in the case of the top management of the fixed network business and for the same reasons (compare section 4.4.3), the HQ top management's approaches to learning have to be considered due to different legal constraints in two differentiated periods—before and after DT's privatisation in 1995.



Since the top management in the fixed line sector and the headquarters were part of the same organisation until privatisation, the described deployed methods and outcomes of TLOL of the fixed network case (see section 4.4.3) match the approaches to TLOL of the headquarters. Without access to external top management resources, they were limited to regrouping of existing competencies and top management training. In addition to the excessive time requirements for building new competencies at the top level, a lack of desire to learn was also shown to have been a factor. And those who were not ready or able to learn were replaced by mainly external hires after privatisation.

### **External Recruiting**

The recruiting issue became particularly prominent for the headquarters' top management with DT's privatisation and the appointment of the youngest CEO in DT's history in May 1995<sup>123</sup>. As could be taken from an interview with the former manager responsible for the HR department of the top management staff, he launched a large number of executive searches for DT's headquarters in the group shortly after his arrival and made the filling of these top positions a "matter for the boss".

It could be taken from interviews with representatives of the top management HR department as well as documentation that from now on mainly young top executives between the ages of 32 and 45, most of them with a formal education in finance or business administration with corresponding relatively short professional experience—in general outside the telecommunications industry or in the consulting—were hired.

The strong external recruitment was viewed by the interviewed top managers as a deliberate attempt to turn Deutsche Telekom away from its negative employer brand and

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<sup>123</sup> He was born in 1949, held a doctor's degree in mathematics and had before several including international – particularly sales-oriented management positions in Nixdorf group and Sony.

image as a public authority which was incompatible with the new CEO's vision<sup>124</sup> of an innovative, customer-oriented, high-performing, private-owned international group. This can be illustrated by a quotation from a long-standing senior manager of the fixed network business:

*"With the new CEO, the notion of quality and service came into the company—also with regard to corporate design and external communication. Communication was extremely important, which also had an important impact on the top management. The appearance had to be better than what was behind it. These were the times where numerous young top managers and above all consultants were recruited who produced all these nice consultant concepts with the Deutsche Telekom Logo on it."*

The preference for the recruiting of management consultants might—apart from their presentation and conceptual skills—also be associated with the fact that management consultants played, according to relevant documentation (e.g. draft resolutions for the board, presentations, ...etc.), an important role in major organisation development projects of DT group since 1990.

It seems, however, doubtful whether these external hires and the strong external recruiting policy led only to desired results. Certainly, comprehensive expert know-how was won at the top level very quickly, as was essential, for example for privatisation and managing investor relations, or market management. The integration of this new expertise and its implementation within a Telekom context appears to have only had limited success. A newly acquired top manager for example, reports the following:

*"From my point of view, there is very strong competition on the first hierarchical level, in particular between the former civil servants and newly recruited top managers. You just have to observe who has lunch together and*

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<sup>124</sup> "We will make Deutsche Telekom the most customer-friendly, best-liked and most successful company in our industry and continue to set new standards around the world in the information society" (Telekom, 2001).

*who not. There are two camps that rarely interact. Everyone works in their own peace and quiet for their personal goals. I'm really disappointed about that."*

This obviously led, as the following statements show, to frustration in the business divisions:

*"A lot of those young external hires did not listen to the advice of their more senior and experienced peers. They did simply not understand how our company ticks. These then disappeared, were replaced by someone new, and everything was done over."*

(Source: a senior manager in the fixed network business—a former civil servant—who worked previously in DT's headquarters.)

*"Some external hires were so decoupled and disconnected from Telekom. We need people who have a feeling for what works and what does not work. Look for instance at all those consultants in the headquarters. Some of them haven't the faintest idea, but produce nice PowerPoint slides. It needed some time until it was realised that these were not the men of action who translate these slides into practice."*

(Source: a middle-aged externally hired top manager in the fixed network business coming from the industry.)

*"In our external presentation and many internal presentations and draft resolutions for the board, they talked about a modern company—even if the quality didn't change at the same pace. Rhetoric and reality were often far from each other. Personally, I found that the discrepancy between what was presented and reality was too large. As a result, a lot of managers—mainly the elder ones with a long tenure in the business—thought we could continue responding to the new requirements with old behaviours. This was an illusion."*

(Source: a middle-aged externally hired top manager in DT's headquarters.)

The missing integration of the partially very young, inexperienced external hires and their short stay at DT (annotation: According to the top management HR department two out of every three left the group before the second year of service) was explained as follows:

*"It had been an attempt to buy stars with a lot of money—but nobody took care how these people would work together. "*

The affected newly-recruited top managers pointed less at the lacking team skills of the new hires and more at existing insider relationships among the "old" managers. One senior manager who joined DT's headquarters a year ago stated:

*"There is a small group of top managers who really guide the company. You cannot pass these people. If you're innovative, you have a tough time of it with those people."*

Top managers with a longer tenure in the organisation had a different explanation for that phenomenon. A senior manager (annotation: a direct report of the CEO) of DT's headquarters reported:

*"Our CEO was always devious<sup>125</sup>. I have worked for long years with him, but I never knew what he took me for. As far as I can say, there is in general an absence of common meetings or of no-risk, non-tactical, one-to-one talks among members of the board and their staff, i.e. the kind of dialogue that doesn't leave the impression that all thoughts expressed are automatically being subjected to positive or negative ratings under the table... We do not have a culture of such exchange in the headquarters. People are fearful of stating demands openly. Rivalry...., bullying... People are afraid to express a view for fear of being wrong or perceived as being wrong. That's difficult, above all for new hires."*

This was reflected—as was further experienced in the interviews—by the prevailing management culture in the headquarters. One of the interviewees—only with the company for 9 months at the time of the interview, explained this as follows:

*"... This hierarchical mindset and the distance to authority is evident everywhere. Our members of the board are not available, they are shielded. There is simply no place, no opportunity for contact and meeting. By the way, the architect of this building should be arrested. Our directors are as distant*

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<sup>125</sup> This corresponds to the observations of Glotz (2001, p. 37) or the Business Week, Oct. 1995 who characterised Sommer as following: "He was not the kind of guy, you'd have a beer with."

*as possible from each other and every member of the board sits in his own tower. This building is a certain symbol. It is strange but obviously normal here that the manager of a unit has his office here, his peers their offices on other floors and his team is situated somewhere else. It is this distance that causes nobody to ask questions or take a step towards the other. It is not because you are afraid—it is simply because you feel the distance.”*

It is presumably also for that reason that—in the divisions’ top managers assessment—there was little teamwork and team spirit among the top management at DT headquarters after privatisation. This is confirmed by the fact that DT’s headquarters was the only part of DT’s top management that did not establish regular management meetings. Before, the cohesion was very different, just like in the fixed network sector.

### **The IPO and the “T”-Brand**

The second largest IPO in history at that time after NT&T in Japan was a costly but successful privatisation and brand campaign (see Glotz 2001) which was launched in march 1996 by the CEO—called “Mister Telekom” by the external press. As could be taken from the interviews with senior managers, the IPO and the implementation of the Telekom brand was seen as very important with regard to TLOL. This in several respects: firstly, IPO and the T-brand made clear that DT’s time as a public authority was definitely over and that DT had to keep up with its competitors in the telecommunications market. The senior manager heading the OD department—himself a civil servant—put it in a nutshell:

*“Then we knew that we didn’t work for the government anymore. This brought about massive changes, in particular with regard to the top and middle management’s code of conduct and philosophy. Today there is a completely different willingness to perform.”*

And another senior manager—now in the strategy department—who worked for DT group at that time as a consultant complemented:

*“Suddenly DT’s employees had a new concept of the enemy. It was not any longer the client, now it was the competitor.”*

The second important effect of the Telekom brand was its integrative effect. Even if this did not always happen voluntarily—as was shown in the mobile/online case and will not be discussed in more detail here for that reason—the strict introduction of the “T” brand strategy, under which all products and areas were collected under a common, successful umbrella brand, did lead to all parts of top management to identify more strongly with the company. The borders between the businesses in the heads of the top managers became more open, leading for the first time to personnel movements at the top level between the businesses (for further details see section 4.5.3). This made new competencies accessible to the group’s top management in different places.

Thirdly, the Telekom brand had an important impact on DT’s image as an employer of top managers. A senior manager in HR in DT’s headquarters put it in a nutshell:

*“The ‘T’-brand has an enormous value. The new brand and the upbeat external communication caused a fundamental change of Telekom’s image ...and helped us win personnel, that we could have never attracted before.”*

This in turn had an important impact on external recruiting activities, which were already considered at an earlier stage of this section.

## **External Acquisitions**

Whereas the top management of the business divisions concentrated on organic growth of their business, it was part of the headquarters’ top management’s mission to get access to and to develop these target markets by means of external growth. The CEO himself set a high priority on these issues, and as a complement a member of the board for international affairs was appointed.

The partly sobering results of DT's acquisition activities for TLOL were already described earlier in this chapter in the corresponding cases with the most dramatic results for the systems business (see fixed-network case: section 4.4.3.2; the mobile/online case: section 4.5.3; and the systems case: section 4.6.3). It seems that the core problem went back to the lacking involvement in the corresponding strategy development and decision-making process which might explain why more than one third of DT's top managers considered M&A and internationalisation as having had a very limited effect on TLOL.

The acquisition strategy was obviously not known, or at least not understood, which had very detrimental effects on the integration of these acquisitions, caused high turnover rates at top level and a corresponding knowledge drain. Furthermore high investments (compare section 4.2.5) burdened the business results lastingly.

### **Implementation of the “Four-Pillar Strategy”**

Considerations for increasing the value of the company, unlocking international markets and consistently aligning the company with the requirements of financial and capital markets also shaped the formal organisation of the DT group. As can be seen below, this initiative by corporate top management also had unintended effects on TLOL.

The merger with Telekom Italia having failed, the group's board decided in 2000 to implement a four-pillar strategy and with that a divisionalised group structure that was meant to smooth the way to new international markets<sup>126</sup>. Within the framework of this project, DT has been transformed into a strategic management holding with four “lines of business” consisting of the fixed network business, the mobile business, the online business, and the systems business.

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<sup>126</sup> A top manager of the strategy department explained in the interview: « *The previous structure never would have been permitted to become an international company.* »

However, the official communication to the employees<sup>127</sup> cannot hide the fact that the real motivation could be traced back to other considerations. Many company-internal conflicts and statements from the interviews with top management support the theory that these changes resulted from capital market considerations and not from operational reasons.

One manager from the systems business reported:

*“At the very beginning the reasoning of the four pillar strategy was the capital market. I remember when the four-pillar strategy was presented by our CEO. He said in the top management meeting: Who will make use of this structure for his own good... I will slay this person and then kick him out. The intention, however, was very different from the real-life. “*

This quote hints—as was already discussed in 4.4.3.2—that unintended changes resulted from this restructuring. In the wake of the implementation of the four-pillar-strategy and the corresponding organisation restructuring, power and decision-making as well as the management-by-objectives system were rendered more decentralised—albeit with a strong focus on short-term divisional objectives which contributed to short-termism and the neglect of long-term objectives (e.g. innovation)<sup>128</sup>.

Each business division was given its own management. The internal definition of the group’s top management was modified and the total number of assigned top managers decreased by ca. 2/3. The business units now put a stronger focus on their own target markets, acting in divisional instead of group terms. They partly even competed with other business units instead of working together to develop convergent products and services. Competition further existed as regards resources such as investment budgets or manpower. The weak points of the new organisation became evident shortly after

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<sup>127</sup> “From top to bottom, the Deutsche Telekom is now geared to the objective of making optimal use of the prospects and potentials of our growth markets in the interest of a future-oriented corporate development that benefits our customers, shareholders and employees” (vision international 2001, Vol. 3-4, p. 2).

<sup>128</sup> A significant decrease of patent applications can be stated: 2002: 547; year 2004: 374 (source: activity report Deutsche Telekom 2004).



implementation in severe conflicts, which could mainly be observed between divisions with close supply and service relations and a high proportion of internal cost allocation:

*“There are cultural problems that we urgently need to work on. If the T-Online division can announce a revenue warning in May, claiming that the T-Com division is at fault, we have a problem on our hands.”*

(Source: interview with a top manager heading a technical department in the fixed network business)

*“Networked products are our strength, but all our departmental thinking gets squarely in the way of it.”*

(Source: interview with a top manager in charge of a business line in the systems business)

*“The question that arises is: who burdens whom with what? The issue is not that some party or other is not coping or is not capable enough and that this is their problem to deal with, but rather to identify one’s own contribution. As far as I can see, there are too few decent people in the responsible positions and too many tricksters. We need to be more open and thus unblock the view of the real problems.”*

(Source: interview with a top manager in charge of regulatory affairs in DT’s headquarters)

Other parts of top management with production that was relatively independent of the rest of the group, such as Mobile, conversely welcomed the greater independence. A top manager in finance in the mobile business stated for instance:

*“Too many—often less important—decisions were made by the corporate board of management in the past. This contradicted the principle that there were other responsible and competent people at divisional level who were ready to take on responsibility when they are involved in the decisions.”*

Apart from the mutual internal and external competition, severe group-internal conflicts, which were partly caused by the equal ranking of the businesses (compare section 4.4.3.2), and changed decision processes, this new structure also resulted in the divisions

developing their own corporate thinking<sup>129</sup> as well as a continuously worsening cooperation of the group's top management. According to most top managers, this was reinforced, as top managers no longer had any point of contact anymore with top managers from other businesses outside their own field of activity.

On top of that, in the face of the cessation of common meetings at group level for all former 'TOP 300' top managers, each business division apart from the systems business—which was trapped in high personnel turnover and permanent restructuring—established its own divisional top management meetings. The results can be illustrated by a quotation of a top manager of DT's headquarters:

*"We are not capable of working together in a cross-divisional way—and I include the management bodies in my judgement."*

This was increasingly reflected in key financial indicators (see section 4.2.5), the first structural changes were instigated after the conclusion of this study<sup>130</sup>.

### **Top Management Training**

Apparently little importance was attributed to training to foster TLOL. This corresponds well with the low number and very irregular frequency of relevant actions, as well as the limited involvement of the corporate board of management in the development of training programmes for the top management that could be observed through-out the entire period of this study. Despite a long tradition in the DT group in terms of training which resulted from the civil service system (compare section 4.4.3), it could be seen that, in

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<sup>129</sup> One interviewee (senior manager heading the OD department of DT group in DT's headquarters) described the effects of that for instance as follows: *"Another factor is that all divisions are developing a corporate thinking approach – e.g. with regard to decisions of the corporate board of management. The divisional representative comments that, "I'm not interested in proposals. Until I receive information to the contrary from my management, they have no relevance for me." It is important to impress upon the individual management bodies that they need to implement and monitor the application of Board decisions within their own divisions."*

<sup>130</sup> It was thus for instance finally decided to reintegrate the T-Online division, which became a stock-corporation in 2000, into the fixed network business. This was accomplished in 2006. Only the brand "T-Online" was upheld.

contrast to all other parts of DT's management, there was no unit or contact person who systematically dealt with training for this target group.

The situation changed apparently within the scope of the implementation of the four-pillar strategy and the establishment of a corporate university for DT group (the so-called Telekom Business Academy<sup>131</sup>). That it took so long (until 2000) might only partly be attributed to disputes over responsibilities between the top management HR department that reported directly to the CEO and the member of the board for HR and his staff who were responsible for all HR matters for the entire staff except the top management. It might rather indicate the relatively low importance that was attached to top management training by the CEO and the corporate board of management. One of them summed it up:

*“You are a born leader or not, and the best way to learn is to learn on-the-job—most notably in change management. I do take a sceptical view of these academies and business schools which lecture on change. Leading change, setting concrete things in motion, is important. You have to force people to change.”*

In spite of that, costly training offerings such as the “Advanced Management Programme” (AMP) were offered to the group's top management but were apparently rather seen as incentives or means to retain managers in the organization. Hoping that a strong brand would be able to attract the attention of DT's top management, the Harvard and Stanford Business School were put in charge of the development and realisation of a training course for DT's top management. It could be found that those senior managers who expected more than an incentive came to a sobering conclusion as regards the outcomes of top management training. The following quotation of a senior manager of DT's headquarters might illustrate this:

*“I had the impression that our members of the corporate board did not know what was trained. They were not aware of their own weak points and deficits.”*

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<sup>131</sup> In 2005 it was decided to close DT's corporate university.

*Instead of that, they sent their direct reports to training courses and did not realise that the people were trained in a direction which was aligned against our management board.”*

Another top manager from HR reported that after the first top management training course in Harvard and Stanford, there had been a push to change things. A consortium of top managers wanted the then CEO, to say something about the grievances. It was hoped that the board would signal that change was desired in this direction. It never came to this, however, due to the resignation of the CEO in summer 2002.

After the take-over by his successor and due to extensive cost cuttings, a further session of the AMP that had already been scheduled was postponed. The realisation of that second session of the programme was linked to the development of the debt situation of DT group, which further underscored the incentive nature of the measure.

#### **4.7.4 Summary of the “Headquarters” Case**

On the basis of this corporate case of DT’s headquarters’ top management, it was possible to show that the mere external hiring of holders of specific expert knowledge or the acquisition of companies is not enough for TLOL to occur. The integration of these new resources is rather crucial. This presupposes above all that the corresponding strategies are understood and shared. The findings of this study suggest that the CEO can play an important role in that respect.

The case also showed that too high levels of diversity at top level risk to overburden the organisation and that lacking knowledge at corporate top management level about the functioning of the organisation is crucial in group-wide change processes.

In detail, the following methods for TLOL were deployed in the period under review:

- Before 1995:

Top Management Training and regrouping of existing resources around required competencies, i.e. Telekom KONTAKT (for further details it is discussed in the summary of the fixed network business).

After privatisation in 1995 and the partial remove of legal constraints:

- Strong external recruiting:

Replacement of those top managers who were not ready or able to learn and filling of newly-created positions with external hires with a formal education in finance or business administration but relatively short professional experience—in general outside the telecommunications industry or in consulting.

- 1996: IPO and implementation of the T-brand strategy.

The T-brand symbolised the final shift from public authority to a private company. It also contributed to stronger identification of all parts of DT's top management with the group, had a strong integrative effect and improved DT's employer brand (target group: top managers)

- 1996: Mergers & acquisitions:

Strong phase of acquisitions. However, limited effect on TLOL as the acquisition strategy remained unclear and divisional top managers were not involved in decision-making. Resulting from that, partly poor management of integration projects. High financial investments with strong impact on company results.

- Implementation of 4-pillar strategy:

Triggered by the capital market, a decentralised group-organisation was implemented. Although not intended to do so, the new structure fostered the top management's acting in divisional rather than group terms and the development of

own corporate thinking at divisional level. Severe conflicts and competition between top managers of the different divisions arose. Co-operation between DT group's top management worsened significantly; synergies between divisions could not be exploited.

- **Advanced Management Training Programme:**

The costly training programme which was developed and carried out in co-operation with well-known business schools was, due to the lacking involvement of the corporate board of management, obviously rather an incentive than a means to foster TLOL.

By means of the four-pillar strategy it became clear, that TLOL does not necessarily lead to positive results. The findings of this corporate study showed, however, that formal organisation structures (see Telekom KONTAKT, Four-pillar-strategy) can have strong behaviour-guiding effects.

#### **4.8 Conclusion**

Having given an account of the situation of DT's top management at the beginning and at the end of the period under review in section 4.3 and considered the different approaches to TLOL of the corresponding cases (see sections 4.4, 4.5, 4.6, 4.7), this section will now sum up the case-specific characteristics and presents an overview of the main findings. First, some insights will be given into how the top managers themselves evaluated the outcomes of TLOL from an overall perspective.

In contrast to some financial key indicators (see section 4.2.5), the interviewed top managers of all businesses and DT's headquarters, with only 2 exceptions, considered the top management of the mobile business as that part of DT's top management that has learned the fastest and best in the period under review. It was followed by the fixed network business that should have come in first place in sole evaluation of financial

performance. The top management of the online business was evaluated average as regards the outcomes of TLOL, and the top management groups of the systems business and headquarters were evaluated as very bad by all top executives.

It could be found in the interviews, that the differences, in particular specific characteristics of the Top Management itself (composition, cohesion... etc.), and the organisational and external learning environment became entrenched, which will have to be analysed in greater detail in the Analysis Chapter. In both of the most highly-rated top management groups (i.e. mobile and fixed network business), it was the cooperation between themselves, which had always been good, that was primarily emphasised.

Concerning external aspects, the top managers themselves, like the following top manager heading a sales department of the mobile business, viewed closeness to the marketplace and customers as well as early deregulation of the corresponding markets as an important factor that fostered TLOL:

*“The parts of the group with stronger market pressure were simply better. The fixed network has hung in for the longest, since it’s been moving in a regulated market for the longest. Everyone who had to stick their head out early had to learn the meaning of customers and prices the hard way.”*

This evaluation of the interviewed top managers is supported by the fact that the first and most significant OD initiatives (e.g. Telekom KONTAKT) which were launched to foster learning and TLOL were market-oriented projects. It also squares well with the lower evaluation of top management in areas far from the market (e.g. headquarters or support functions such as finance, human resources etc.), or also of top management of those parts of the group with high internal sales (here above all the systems business and, even if to a lower extent, the online business). A top manager of the fixed network business put it this way with view to the systems business:

*“Systems’ internal sales are still relatively high. That makes it tempting to become uncompetitive. At least the board member is no longer also responsible for Systems, and now Systems won’t be subsidised any more.”*

Likewise, top managers identified the need for unlearning as a decisive factor for TLOL and a reason why TLOL differed between the different parts of DT’s top management. This can be illustrated by the quotation of an interviewed Systems top manager who described his perception of the Mobile top management as follows:

*“The top management of T-Mobile was the best and fastest with regard to learning. ...There is a completely different attitude among the managers. An atmosphere of departure. They had not that ballast of instructions and the civil service. They did those things which had to be done and not because they were there and had to be changed. It is simply a different life in this company. They can follow changes much easier and without hectic diversions like in the rest of Telekom ...It was quieter than other parts of the group. Of course this is also a size issue, but above all, it is a matter of the people who are working there. Mobile’s top managers take a risk, are fresh and have an appreciation for new ventures.”*

However, fixed-network top managers in particular seriously questioned whether Mobile’s top management could have also managed the large and complex fixed-network business just as successfully. Some voices from headquarters also argued that Mobile had *“had an easier job.”* (senior manager in the legal department). Against the background of those external hires in the fixed network business (see section 4.4.3.2) who underestimated the complexity and inertia of that large fixed network organisation and finally failed, this seems to be at least a justified objection.

Before moving on to the analysis chapter the following table now sums up the identified case-specific characteristics:



	<b>“Fixed Network” Case</b>	<b>“Mobile / Online” Case</b>	<b>“Systems” Case</b>	<b>“Headquarter” Case</b>
<b>Exogenous Factors:</b> - Market Forces - Other powerful outside sources	- Relatively late deregulation in 1998 is followed by strong competition and price dropping - Mature, formerly monopolist market - Civil servants remain protected by public labour regulations - No access to the external labour market until privatisation and no external acquisitions	- Early deregulation of the very fast growing, highly competitive and dynamic markets	- Early deregulation of the fast growing market, but high share of group-internal sales and so less market pressure	- Strong political interference - Deregulation of tele-communications markets - Due to reunification of western and eastern Germany necessity to raise capital outside tight federal budgets - Globalisation of the business - Increasing influence of capital market and shareholders
<b>Strategy:</b> - Business Strategy - Corporate Strategy	- From a provider of infrastructural service to quality leadership in the premium segment - Minimizing of the unavoidable loss of market share	- Develop rapidly growing markets as the ‘one-stop-shop’ with a comprehensive service for mobile communications and strategic partnerships in the online services.	- Quality leadership for individual telecommunications solutions for national and international business customers	- From the civil service to a market orientated, competitive private company - Consequent orientation towards the financial and capital market
<b>Organisation:</b> - Specific characteristics	- Complex (size, routines, structuring) but shrinking organisation - Cultural legacy of the former public authority	- Very fast growing companies which were build up from the scratch - “Start-up” company culture	- New founded, growing company but with strong interfaces with other businesses - After ‘00: complex, fast changing matrix organisation with different sub-cultures	- Emerged from a bureaucratically structured ministry - Increasing decentralisation and alignment of organisation corresponding to requirements of the capital market
<b>Top Mgt:</b> - Specific characteristics	- Many civil servants - On average older, mainly technically-qualified top mgt. staff with long tenure in the organisation - Strong cohesion—also due to long years of shared working experience and regular management meetings	- On average younger, strong emphasis on formal education and job experience in sales, marketing, finance, shorter tenure in the organisation - Strong cohesion based upon “start-up”-spirit, common objectives and regular meetings/ events	- High diversity of the top management - Low average tenure in the organisation - No or very limited cohesion at top level	- High diversity of the headquarters top management; preference for consultants. - On average lower age and tenure in the organisation. - “Stars” at top level with no cohesion

<b>Approaches to TLOL</b>	<p><i>Before privatisation:</i></p> <ul style="list-style-type: none"> <li>- Regrouping of organisation and top mgt. around required competencies but problem of unlearning</li> <li>- Top mgt. training, but revealed as not appropriate in fast-changing context</li> </ul> <p><i>After privatisation:</i></p> <ul style="list-style-type: none"> <li>- Moderate external recruiting to enlist new competencies.</li> <li>- Dismissal of those who weren't willing/able to learn</li> <li>- Imposed external acquisitions but limited integration of new top mgrs.</li> <li>- High frequency of OD and cost-cutting initiatives increased rivalry at top level</li> <li>- Imposed implementation as a separate line of business had negative effects on group-wide co-operation</li> </ul>	<ul style="list-style-type: none"> <li>- Creation of a subsidiary company for the business increased flexibility</li> <li>- Strong ext. recruiting at top level but good integration of new hires</li> <li>- Strict implementation of 'T'-brand brought about stronger identification with the group; dismissal of those who were not ready to change</li> <li>- Imposed integration of ext. acquisitions but due to lacking involvement in decision-making with limited results</li> <li>- Imposed implementation as a separate line of business fostered accountability and development of an own corporate thinking, but worsened co-operation at group level</li> </ul>	<ul style="list-style-type: none"> <li>- Creation of a subsidiary company for the business increased flexibility</li> <li>- Imposed integration of international acquisitions but with limited results</li> <li>- Strong external recruiting</li> <li>- Imposed merger with very negative results (i.e. serious conflicts, high turnover rates, very complex &amp; fast changing matrix organisation, high levels of diversity at top mgt. level)</li> <li>- restructuring developed a certain momentum on its own.</li> </ul>	<p><i>Before privatisation:</i></p> <ul style="list-style-type: none"> <li>- see fixed network case</li> </ul> <p><i>After privatisation:</i></p> <ul style="list-style-type: none"> <li>- Strong external recruiting led to very high levels of diversity</li> <li>- "T"-brand had a strong integrative effect on top mgt.</li> <li>- Numerous mergers &amp; acquisitions but acquisition strategy was not understood by divisional top management.</li> <li>- Although not intended, led the implementation of a capital-market-oriented group organisation to top mgt's acting in divisional rather than group terms</li> <li>- Top management training but lacking mgt. attention of the corporate board</li> </ul>
<b>Overall evaluation of TLOL*</b>	+	++ (mobile) +/- (online)	--	--

\* self-evaluation of DT's top management; Legend: -- = very poor; ++ = very good

Table 23: Case-Specific Characteristics Related to TLOL

# Chapter Five – Case Analysis & Synthesis

## 5.1 Introduction

As already shown (see Chapter Two), the concept of organisational learning is often considered in literature and research as a valid and logical response to a series of challenges inspired by strategic change. In that connection, particular importance is attributed to top management and the organisational learning of that particular group of people at the apex of the organisation. Given the research objective of exploring corresponding methods of top-level organisational learning, the data collected from the research site will now be analysed in greater detail in this chapter. In doing so, the analysis not only aims to contribute to a better understanding of the kind of initiatives and methods for top-level organisational learning and the rationales for their implementation, but also to seek to explain differences between corporate and divisional top-level organisational learning, and to broaden the knowledge of factors that foster or hinder organisational learning at top management level.

Although a qualitative, long-term case study of the top management of just a single—albeit very large—organisation acting in a turbulent environment was carried out, considerable differences as regards the use and effectiveness of methods of top-level organisational learning between different constituent parts of the group's top management could be found. These differences could be traced to various factors outside and inside the given parts of the top management, such as market forces or legal constraints, strategies, powerful inside forces, and specific characteristics of the corresponding given parts of the organisation and the top management group. Additionally, dynamics between these factors as well as the parts of the top management could be identified—above all between the corporate and divisional top management—

which either had a positive or negative effect on learning of the relevant top management group.

As previously mentioned, this chapter now aims to contribute to the understanding of these patterns and is dedicated to in-depth analysis of the findings. Based upon the strategy for data analysis (see methodology chapter), the findings of this thesis are arranged around the conceptual framework which was derived from the literature and which was introduced at the end of the literature review.

In the following sections, the findings relating to each component of the conceptual framework are analysed and are simultaneously discussed and linked with the literature within this one common chapter. As organisational learning of the unit 'top management' cannot be understood without its learning environment, the first sections are dedicated to the in-depth analysis of the context. Section 5.2 will start with exogenous factors, followed by strategy (section 5.3), and the component organisation (section 5.4). This prior focus on context is indispensable in order to clarify the organisational setting and to better understand what will follow in section 5.5 on the top management. Each section concludes with a short summary discussion. In section 5.6, the key findings and their sources of evidence are briefly summarised. As the four constituent parts of the framework are analytically separate, but in fact highly interconnected, the dynamic interrelationships between them are highlighted in the final section of the analysis chapter (cf. section 5.7).

## **5.2 Exogeneous Factors**

As mentioned earlier exogenous factors comprise all external factors that generate or impede a pressing need for top-level organisational learning or that expand or narrow down options to respond to a learning need. Dealing with these factors is important in

order to better understand what triggered organisational learning at corporate as well as divisional top management level, to learn more about the rationales for the choices made around initiatives and methods for top-level organisational learning and to assess the extent to which top-level organisational learning is reinforced or hindered by its external environment. On top of that, corporate and business strategies are derived from exogenous factors, in whose development, *Mintzberg* (1995) suggests, learning processes play a key role.

The need for in-depth consideration of exogenous factors can also be derived from the literature and research in this field. The founding fathers of organisational learning literature, *Cyert and March* (1963), and many other authors of the organisational learning literature (see *Lawrence and Lorsch* 1967; *Argyris and Schoen* 1978; *Duncan and Weiss* 1979; *Shrivastava* 1983; *Fiol and Lyles* 1985; *Levitt and March* 1988) considered organisational learning as a means to adapt to environmental demands. Similarly, proponents of the executive or management learning literature (e.g. *Antonacopoulou* 1999; *Richter* 1999) identified adjustment to change as a driver of learning. However, as *Kammel* (2000, p. 104) underlined, the array of potential change forces is wide, and following *Whittington's* (1990; 1992) suggestion, learning agents have a certain discretion to decide which parts of their learning environment they consider as important and how they intend to respond to that. Due to that, the exogenous factors that encourage or impede top-level organisational learning are analysed in greater detail in the following sections.

### **5.2.1 Market Forces**

As will be shown hereafter, it could be found in this study that the need for learning at top level, and the pace and quality of top-level organisational learning were strongly influenced by market forces. The study thus confirms in principle *Harvey and Denton*

(1999), who identified in his empirical study on the emergence of the twin ideas of organisational learning and the learning organisation a series of market-related factors such as an ever more rapid pace of change in business environment or the intensely competitive nature of global business, from which the need for organisational learning was derived (Harvey and Denton 1999, p. 897). In the same way, the study supports the findings of *Antonacopoulou's* research (1999) on management learning in the retailing banking sector which establishes a close connection between a series of external forces such as trends in the world economy, changes in the market, the intensification of competition and the need for learning. Although overall not a lot is mentioned in the literature about which meaning "market forces" indeed have for top-level organisational learning and although authors such as *Harvey and Denton* (1999) or *Antonacopoulou* (Antonacopoulou 1999) do not differentiate between different target groups or between corporate or divisional top managers, the findings of this research strongly indicate—as will be shown below—that organisational learning at corporate and divisional top management level is triggered and/or influenced in different ways by market-related factors.

This conclusion can be drawn on the one hand from the proximate connection that the interviewed top managers themselves created between competitive pressure, and the pace and quality of top-level organisational learning in the corresponding top management group. Thus, for instance, according to a very large majority of the interviewed top executives<sup>132</sup>, top-level organisational learning was worse amongst those parts of DT's top management that operated (longer) in regulated markets (e.g. fixed network business) or had, like the Systems business, strong DT-internal business and sales compared to other parts of DT's top management. In contrast to that, in comparison with other parts of DT's top management, learning was perceived as better or faster

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<sup>132</sup> Annotation: Only two senior managers from the fixed network business (In total 37 top managers were interviewed in that series of interviews.) took a different view. They argued that the different parts of DT's top management had different starting points and so could not be compared.

amongst those top management groups that, like the mobile business, had to keep up from the start with keen competition in deregulated markets, that acted in fast-developing, growing markets with shrinking product life-cycles and whose success depended to a high extent on the external market.

As can be taken from the table below, these views expressed by the interviewed top managers about the impact of market forces on organisational learning at divisional top management level square well with some hard evidence, such as at the time of market deregulation and consequent intensifying of competition, the actual dependency of the corresponding business division from the external market, as well as the dynamic of growth of the particular partial markets (see table below).

	<b>Mobile/Online business</b>	<b>Fixed network business</b>	<b>Systems business</b>
<b>Competitive-situation (external market)</b>	Very strong competition due to early deregulation  (from the very start of the organisation, mobile: 1993 online: 1996)	Strong competition after relatively late deregulation of the market  (monopolist industry structure until the liberalisation of the fixed network telecommunications market in 1998)	Strong competition due to early deregulation  (from the very start of the organisation in 1994)
<b>Stage of Development of the Market</b>	Fast-growing	Mature	Growing
<b>Realises the following share of its sales within DT group as % of total turnover</b>	20 % (mobile) 51 % (online)	32 %	74 %
<b>Overall evaluation of the need for learning*</b>	<b>Early and very strong learning need</b>	<b>Relatively late (after deregulation) but strong learning need</b>	<b>Early, but relatively low learning need</b>
<b>Effectiveness of top-level organisational learning was evaluated compared to other parts of DT's top management group*</b>	Mobile: Very good Online: Satisfactory	Good	Very poor

(Prepared by author based on DT-internal presentation: "Regeln der Wertschöpfung" [The Rules of Creating Value] of 23 January 2003; annotation: corporate case not considered here, as it has a purely strategic focus, without operational, market-related responsibility or competition)

\* self-evaluation of DT's top management.

Table 24: Market Forces and Top-Level Organisational Learning

Furthermore, the overall findings also correspond to the top managers' estimates expressed in interviews on which parts of top management within individual cases learnt faster or better than others. In turn, all interviewed top managers unanimously agreed that within an individual case unit, there was faster or better learning amongst the parts of top management that had a direct interface to external clients or the market and with whom there was no obligation to contract such as with internal service or cross-divisional functions (e.g. human resources, finance, etc.).

This study also identified a correlation between market forces—caused in this case, for instance, by the deregulation of the corresponding market—and the frequency of the appearance of initiatives and methods for top-level organisational learning. This could be derived from an analysis of deployed methods for top-level organisational learning, such as organisation development projects, acquisitions or external recruiting activities<sup>133</sup>, which, following *Yeung et al.'s (1999)* empirical study on organisational learning of middle managers or *McGrath et al.'s* research (1995) on the development of new competitive advantages, are fundamentally well-suited to developing the management capabilities required in fast-changing environments. At the same time, it was found that what applied to the top management of the business divisions and forces of customer markets, analogously applied to top management at headquarters and capital market forces.

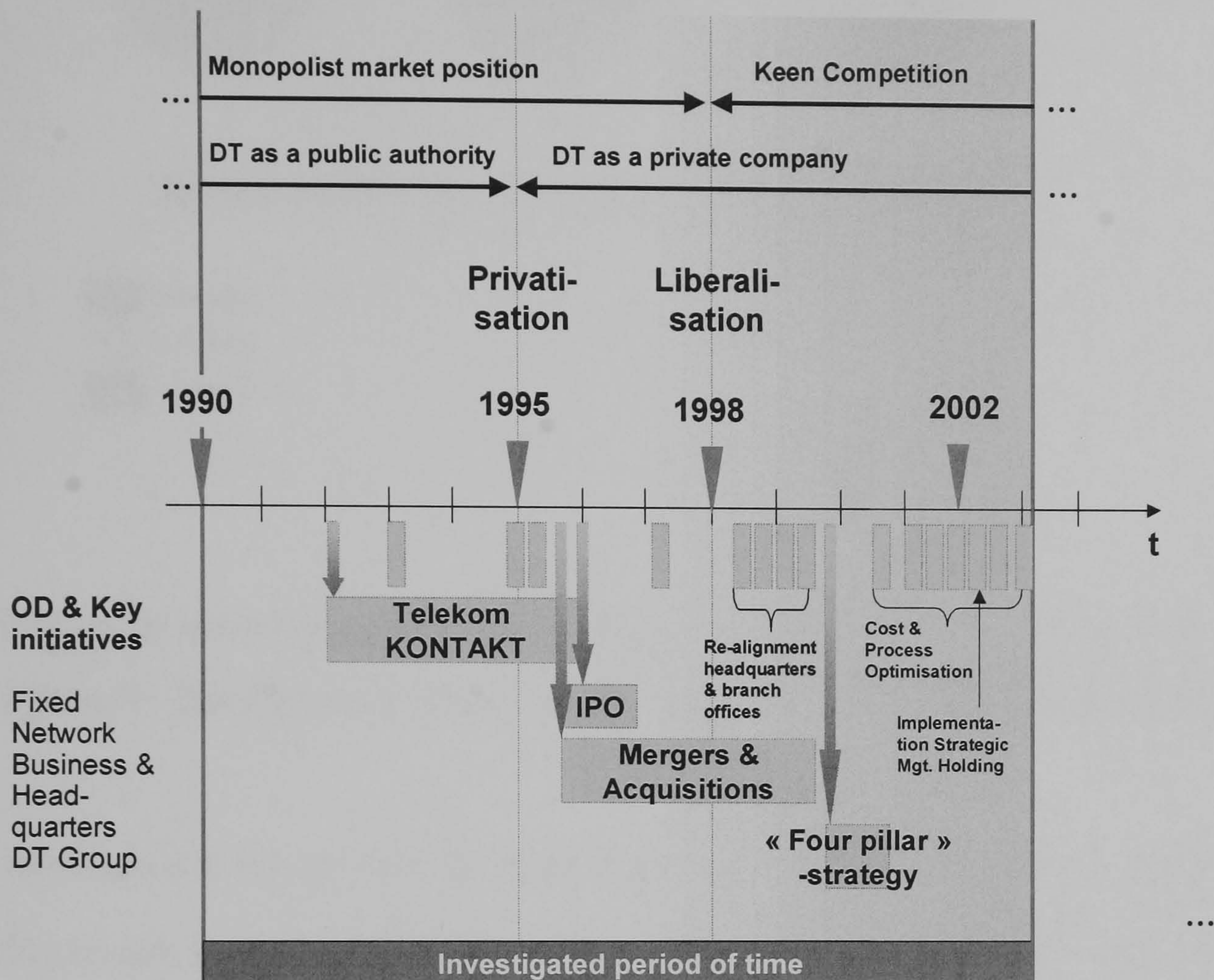
Due to the privatisation of DT group in the period under review and the relatively late liberalisation of the fixed network telecommunications market, this can best be illustrated by means of the top management of the fixed network business and DT's headquarters, which represented the majority of DT's top management for a long time<sup>134</sup>. Whereas, as shown in the figure below, very few major change initiatives were launched through the top management during the DT group's time as a state-owned monopolist, numerous

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<sup>133</sup> This will be considered in greater detail in section 5.5.



projects were initiated after privatisation and DT's IPO<sup>135</sup> in 1995 (annotation: above all numerous acquisitions) and the liberalisation of the fixed network telecommunications market in 1998 (see figure below; see also Chapter Four, section 4.4.3.2).



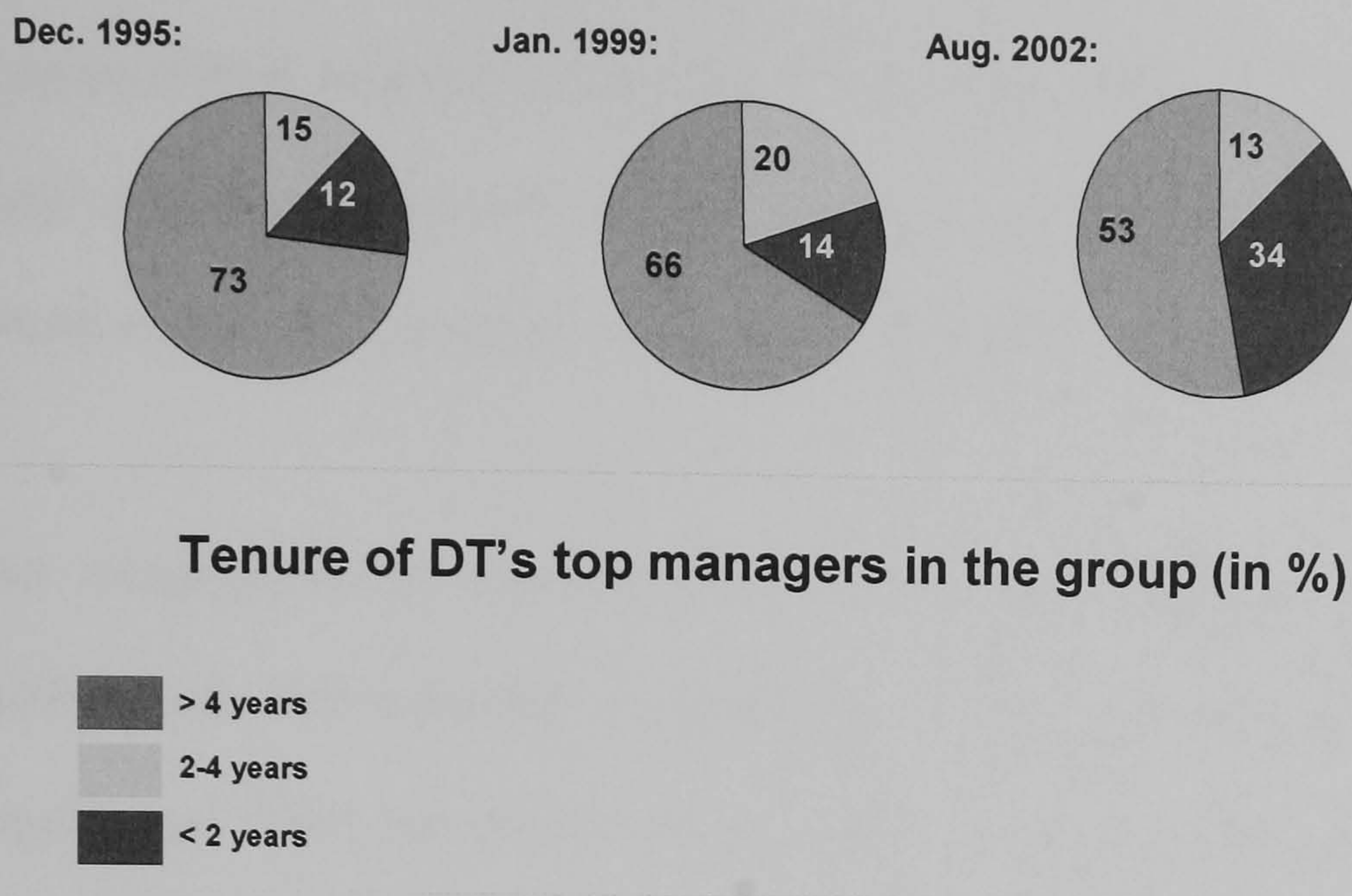
Prepared by author;  
 annotation: the particularly highlighted initiatives were particularly complex and concerned the entire group

Figure 8 : OD & Key Initiatives Fixed Network Business & Headquarters DT Group

As can be taken from the figure below, in the same period of time, the tenure of DT top management in the organisation significantly decreased due to acquisitions and steadily increasing external recruiting activities.

<sup>134</sup> In the other cases, there was greater market pressure from foundation on due to early deregulation and the development of the business.

<sup>135</sup> The IPO of DT group was finally imposed by the German federal government due to the enormous financial requirements (ca. 60 billion deutschmarks) for investments in the telecommunications infrastructure in former Eastern Germany (Büchner 1999, p. 13).



Prepared by author based upon corresponding top management HR department statistics.<sup>136</sup>

Figure 9 : Development of the Top Management's Tenure in the Organisation

Although it is known that top managers learn mainly from current practical experience in day-to-day business (Kammel 2000; Braddick 1988), from 'learning-by-doing' (Schreyögg 1984) and "...primarily through confrontations with novel situations and problems ..." (Davies and Easterby-Smith 1984, p. 180), it would be premature and too simple to draw the conclusion based upon these findings that market forces foster top-level organisational learning. This study showed rather that the frequency of the deployed initiatives and methods and thus potential options for top-level organisational learning increased as a result of increasing market forces. However, it would be tempting to concur that the deployment of such initiatives and methods is enough for top-level organisational learning to occur and that the deployment of such methods always leads to beneficial results. For a more in-depth consideration of that point it is referred to section 5.3 on strategy.

<sup>136</sup> Note: No corresponding statistics were available until privatisation. According to the former head of the top management HR departments and some of his former colleagues, there were only very few external hires and no external acquisitions until privatisation, except in the then still relatively small spin-offs, Mobile and Systems.

In spite of that and due to the shown mediate connection between market forces and top-level organisational learning, this study confirms that customer as well as capital market forces matter for top-level organisational learning. However, the question remains why.

Top management's explanations for this are looked at in the individual cases and in section 4.8. For example, the lacking "*ballast of instructions and the civil service*" was mentioned. That henceforth risks were taken and things done because they had to be done—without explicit instruction or authorisation.

This suggests that top-level organisational learning might be related to an issue identified by *Finkelstein and Hambrick (1996)*. Their research findings suggest that the mentioned forces in the top management's task environment, such as industry structure, regulation of the market, growth rate, capital intensity etc. greatly affect the level of managerial discretion and in turn how much influence managers have on organisational outcomes. They also found that in general far more discretion—and therefore more room for learning—is conferred to top managers when "*there is a relative absence of clear means-ends linkages*" and "*an absence of direct and concentrated constraints*" (*Finkelstein and Hambrick 1996, p.28*). These aspects correspond precisely to what differentiated, for instance, the top management of the fixed network business before privatisation from the top management of the mobile communications business or the top management of the later (i.e. after privatisation) fixed network business. It suggests the conclusion that, by way of example, top level organisational learning in the mobile business was not only therefore perceived by top management as being overall faster and better because top management was subject to high pressure to succeed in the external market from the very start due to existing market developments and dependence from this market. Following *Finkelstein and Hambrick's (1996)* suggestion the top management of the

mobile business was also therefore more effective, irrespective of market pressure and pressure to succeed, as regards top level organisational learning because it had more options in terms of action and learning due to greater design and influence opportunities for organisational outcomes due to the lack of factors such as market regulation or public mandates.

Against this background, the estimation of learning as better or more effective is qualified by the different starting conditions. A top manager from the mobile business made the following self-critical observation on learning success among top management in the various cases:

*“You have to qualify what you can affect against the background. It’s doubtful that if you had put the then mobile top management in charge of the fixed network division that anything different would have resulted.”*

After it was possible to show that market forces benefit top-level organisational learning as well as determine the “room for learning” that top management has, legal constraints as a further identified exogenous factor of organisational learning at top management level will be subsequently explored.

### **5.2.2 Legal Constraints**

It could be found in this study that organisational learning at DT group’s top level was furthermore strongly influenced by restrictions of the civil service, i.e. the protection of civil servants by laws and regulations governing such state employees. The study showed that the presence or absence of public sector employment regulations above all affected the pace of unlearning as well as the pace and effectiveness of new top level organisational learning. Especially in fast changing environments like in this study, public sector employment regulations and “civil servant structures” on top level apparently delay adaptation processes or influence their efficiency in a negative way.

Apart from corresponding statements of interviewed top managers from all DT group businesses, this is supported by the significant decrease of the share of civil servants in DT group's top management in the course of time from 100% in 1990 to 14% in 2002, which cannot be explained by natural personnel turnover at top level only, but indicates intention and targeted actions<sup>137</sup>. It is also supported by the fact that in highly volatile environments (e.g. mobile business), separate subsidiaries were founded for this reason in order to—as is stated in the corresponding documentation (Blank 1996)—to bypass the constraints of public sector employment regulations (see sections 4.2.2 and 4.5.2), to increase the flexibility of the use of human resources and thus to achieve greater flexibility and quicker response to market requirements in this highly dynamic and competitive environment. This is also directly reflected in the composition of the different parts of DT's top management, where substantial differences could be found as regards the share of civil servants at the top level<sup>138</sup>.

In what follows, a closer look will be taken at why these legal constraints (i.e. public sector employment regulations) apparently had such an impact on the pace and effectiveness of top-level organisational learning.

It could be found in the cases of the fixed network business and DT's headquarters that until privatisation public sector employment regulations almost completely blocked access to the external labour market and thus to the adding of new skills from the external market. As acquisitions were not possible until privatisation due to legal restrictions, the possible spectrum of methods for top-level organisational learning was limited and had to

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<sup>137</sup> As the then top management HR manager reported, most related changes happened first with the privatisation and the consequently altered legal framework as well as the gained access to the external labour market.

<sup>138</sup> e.g. nearly 100% civil servants in the top management of the fixed network business until privatisation of DT group whereas, with very few exceptions, 100% of the top management of the mobile business were externally appointed at that time.

be done on the basis of existing resources up to this time. As was shown in the relevant cases, top managers in the fixed network business as well as at headquarters themselves described learning on the exclusive basis of existing competencies, in particular with a view to the learning specialised competencies as less efficient (see sections 4.4.3.1 and 4.7.2.3). This is supported by the fact that training measures started in the fixed network business with reference to this were halted due to the excessive amount of time required (see section 4.4.3.1). On-the-job learning was seen as inefficient by interviewed top management with these auspices. For example, they spoke of “very laborious project work” and substantiated this on the one hand with lacking expert knowledge (e.g. in sales, marketing), and on the other hand with fierce power struggles, micropolitical disagreements, lacking entrepreneurial spirit and great resistance to change that were reflected in endless discussions and long project durations. This evaluation by the interviewees is confirmed by *Glutz*<sup>139</sup> who, for the same reason, described the constantly compromise-seeking and mediating first CEO of DT group (1989—1994), as a “strolling mediation committee” (Glutz 2001, p. 52). In fact, the Telekom KONTAKT project (see section 4.4.3.1) lasted 5 years (Telekom KONTAKT 1992-96), which is infeasible in a fast-changing and truly competitive environment.

The above-mentioned fierce power struggles, lacking entrepreneurial spirit etc. are also signs that this could continue because of the lack of external recruiting and other addition of new competencies from outside; what *Finger and Bürgin-Brand* (1999) called “*more complex functioning and management*”<sup>140</sup> or *LaPalombara* (2001) “*normative idea*” in the

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<sup>139</sup> *Peter Glutz* † was a German politician, a social democrat, who sat on DT group’s supervisory board for more than a decade. Afterwards he worked as a consultant for DT group.

<sup>140</sup> Corresponding to *Finger and Bürgin Brand* (1999) many public sector organisations are not qualitatively different from private sector organisations but due to the application of public law “... *simultaneously under pressure from their own national governments, from the increasingly global market, and from their clients*” (Finger and Bürgin-Brand 1999, p. 133) so that “... *they operate in a more difficult environment, which makes their functioning and their management more complex*” (Finger and Bürgin-Brand 1999, p.130).

public sector, whose influence remained visible in many areas<sup>141</sup>. The “normative idea” expresses itself in additional dimensions that differentiate public from private sector organizations—among those orientation towards action and autonomy. Following *LaPalombara’s* (2001) suggestion in public sector organisations action—up to the very top—tends to be reactive, and conservatism, not risk-taking becomes the modal orientation to action. As a result, organisational change in such organisations is extraordinarily difficult to carry off, given the magnitude of inertial forces and the informal influences and pressures that often limit the degrees of freedom open to persons in these organisations.

This squares well with the clear estimation of top managers in this study, who—with the exception of three interviewed top managers, who were civil servants—all described every part of top management that had only a low proportion of civil servants and were put under private management earlier than other divisions as “fresher”, more entrepreneurial and with a greater affinity to risk. In particular, this was the mobile business.

Nevertheless, it would be dangerous to concur that civil servants are worse learners. Rather, it mirrors the idea of *Sternberg and Lubart* (1993, p.9) according to which knowledge can be a double-edged sword and be beneficial and detrimental at the same time.

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<sup>141</sup> Example: In 2002, the CEO Ron Sommer became more and more under attack in the wake of increasing financial debt incurred by the company as he invested billions in new technology (especially UMTS) and acquired the U.S. wireless group VoiceStream for over thirty billion euros. With the stock having lost almost 90% of its value during the past two years, the stockholders and some board members were attacking Sommer. Sommer vigorously defended himself, pointing out that he was transforming a century-old oversized government ministry into a global communications firm and that this involved taking sizeable risks. Sommer had support within the company ranks, but that became increasingly less important to the almost three million Germans who had decided to experiment in the stock market in the late nineties and were watching their investment melt away. During the German Government election campaign both chancellor Schröder and his opponent, Stoiber, saw these developments as a campaign issue that could be at once dangerous for Schröder and an opportunity to address voter concerns, especially in the face of rising unemployment and a continuing sluggish economy. Sommer had to step down.

A *second* important effect of public employment regulations on top-level organisational learning was that top civil servants could not be made redundant. Rather they had a guaranteed job for life. As a result, the fixed network and DT headquarters cases are a matter of a virtually entirely closed system up until privatisation. The reason for this is that, in both cases, there was no or only very limited access to external resources and top managers who were not ready or able to unlearn and/or learn new things<sup>142</sup> could not be parted with. Corresponding to *Hedberg* (1981), *Whittington* (1993, p. 122) and likewise *Bleicher* (1991, p. 762) dismissals and the replacement of managers in key positions with people coming from outside the organisation represented an important, sometimes the only options when unlearning, as in the given example, e.g. among some presidents of the regional directorates, does obviously not occur and strategic change should be initiated. Only upon privatisation could the DT group—as the then head of top management HR reported and as arose from the corresponding documentation<sup>143</sup>—make greater use of so-called consulting contracts with civil servants as top managers. Thereafter, the affected managers were available to the group as so-called “special consultants” until their retirement, maintaining at least their respective remuneration. In fact, they mostly no longer appeared (i.e. “they stayed at home”). Previously, there had been no possibility to sanction top managers who were civil servants whose undesirable learning behaviour and resistance could have been reacted to, due to legal public sector employment restrictions<sup>144</sup>.

As mentioned before, the study showed that public sector employment regulations also had an important impact on the effectiveness of initiatives and methods for organisational

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<sup>142</sup> A senior manager of the fixed network business put it this way: “In the fixed network business, there were and are many civil servants. The personnel structure and also the relatively high age structure up to the top level influence business. The change in spirit from monopolist to a price setter succeeded in part only through ageing and ‘dying off.’”

<sup>143</sup> Precise figures cannot be given for confidentiality reasons.

<sup>144</sup> There was only the option of fostering desired behaviour by means of an additional incentive system, such as performance-related pay, which was introduced as part of Telekom KONTAKT (see section 4.4.3.1)



learning at top management level. Corresponding to *Yeung et al.'s* (1999) suggestion, management capabilities can best be developed in turbulent environments by direct experience and experimentation with new products, processes and structures. In this study, however, due to the aforementioned legal constraints, *Yeung et al.'s* approach could only partially be confirmed. Indeed, particularly top management learning in the mobile and online cases was seen as faster and better, which was primarily characterised by the building up work within the company. If, however, you follow *Yeung et al.'s* suggestion, the interviewed top managers would, for example, also have had to assess top-level organisational learning in connection with projects such as Telekom KONTAKT as efficient. That this was clearly not the case can be explained in different ways: *Yeung et al.* assumes an open system, i.e. that typically organisations mix—even if in different combinations and to varying degrees (*Yeung et al.* 1999, p. 38)—all learning styles, including competency acquisition from externally through e.g. recruitment or acquisitions. This was, however, nearly not the case in the fixed network and HQ cases until DT's privatisation. *Yeung et al.'s* research did also not take into account that for whatever reason, not only were no new managers recruited at the top level, but no existing managers could be made redundant. A further limitation of his study was his focus mainly on middle management and not the top management level, where specific influence factors such as power struggles and positional solitudes of top managers are much more important. And finally *Yeung et al.'s* study was carried out in private companies (*Yeung et al.* 1999, p. 39) so that his research did not take into consideration specific characteristics of public sector organisations as in this study.

Consequently, the findings of this study suggest, as an extension of *Yeung et al.'s* (1999) approach, that top-level organisational learning in turbulent environments mandatorily requires the acquisition of external resources if the top management should get hold of specific competencies in time and overcome inertial forces and crusty structures.

### 5.2.3 Summary Component Exogeneous Factors

In this section the external factors that generate or impede a pressing need for top-level organisational learning or that expand or narrow down options to respond to a learning need were analysed.

As with *Antonacopoulou* (1999) in her study on management learning in the retailing banking sector, in this case a closer relationship between the arising of market forces and top level organisational learning could also be identified.

It could thus be found that not only learning requirements are derived from market forces, but also the frequency of arising of initiatives and methods for top-level organisational learning is influenced by these. In addition, it could be shown that *Finkelstein and Hambrick's* study (1996) can be extended to top-level organisational learning. The top management's task environment such as industry structure, regulation of the market, growth rate, capital intensity etc. not only determines managerial discretion but greatly affects room for learning and in turn top management's influence opportunities on organisational outcomes. This became visible particularly based on the pace and effectiveness of top-level organisational learning. In the case-spanning and case-internal view, the parts of top management that were subject to greater market pressure and market dependence learned relatively earlier or faster. In the corporate case, the capital market took the place of the customer markets.

As a second important exogenous factor that exerted an influence on organisational learning at top management level, public sector employment regulations could be identified. As was shown with the fixed network and DT headquarters cases, this meant top-level organisational learning up to privatisation was based solely on existing resources. New top managers and specific, new expert know-how could not be added to

top management through external recruiting, nor could civil servants be removed from top management by dismissals. This also meant that old thinking and acting patterns—here specific characteristics of the public sector (compare: Finger and Bürgin-Brand 1999; LaPalombara 2001)—could outlive their usefulness at the top level. As a result, slow unlearning (see: Hedberg 1981; Whittington 1993; Bleicher 1991) and not effective top-level organisational learning could be identified as a weakness of these two case organisations.

These research findings led also to a suggestion concerning the methods for organisational learning at top management level that should be applied in turbulent environments. Corresponding to *Yeung et al.* (1999), management capabilities can best be developed in turbulent environments by direct experience and the experimentation with new products, processes and structures. But the analysis of the exogenous factors in this study showed, that top-level organisational learning in turbulent environments additionally absolutely requires unlearning and the external acquisition of competencies (e.g. through external recruiting) in order to get hold of specific expert knowledge on time and to overcome inertial forces.

### **5.3 Strategy**

Corresponding to a series of academics in the field of management and executive learning, there are from the perspective of a manager no “learning” problems per se. The manager’s primary concern raised in the literature would rather be to respond to a performance requirement and manage a business problem with success (compare e.g. Antonacopoulou 1999; Richter 1999; Baldwin and Lawson 1995; Mumford 1988)<sup>145</sup>. This is why this study, which seeks to contribute to a better understanding of organisational

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<sup>145</sup> This might also be related to the problem identified by *Baldwin and Lawson* (1995) that once a manager made the decision to engage in a strategic process or project, learning would become a secondary purpose, and the manager even might not want to be perceived as a learner.

learning at top management level, has to have a look at the organisations' strategic objectives of which the top management's strategic approach to learning is consequently an integral part.

Although agreement is largely predominant in the literature regarding the importance of learning processes for strategy development (see e.g. Mintzberg 1995; Quinn 1980) a more in-depth understanding of the relationship between strategy and top-level organisational learning is still lacking. Although we know that top managers have a preference for incremental learning approaches, i.e. for learning-by-doing (see e.g. Burgoyne and Stuart 1976; Burgoyne and Hodgson 1983; Stuart 1984; Davies and Easterby-Smith 1984; Mumford 1986; Braddick 1988; Kammel 2000; Antonacopoulou 2002), and at any point in time have the power to influence the strategies, goals and design of the organisation (Duncan and Weiss 1979), precisely such incremental approaches are clearly only partly suitable, when substantial and fast change or adaptation respectively has to occur (see e.g. Schreyögg 1984; Ansoff 1991; Baldwin and Lawson 1995; Hamel and Prahalad 1996). Likewise the study by *Yeung et al.* (1999) suggests that in turbulent contexts only some of what he calls "learning styles" are effective. This raised the question under what circumstances the top management actually acquires the competencies to be successful (see also Storey 1989; Storey 1990) and refers to *Baldwin and Lawson's* call (1995) for a planned process or strategy.

In what follows, a closer look will therefore be taken at the analysis of strategies as an outcome of strategy development and related learning processes of the top management (Mintzberg 1995; Quinn 1980). A particular emphasis will be put on the initiatives and methods for top-level organisational learning that derived from these strategies as well as on the interaction of corporate or business strategies respectively. Apart from potential conflicts of aims that could arise from the differing alignment of divisional top management groups to customer markets and the corporate top management group to

the capital market and its impact on top-level organisational learning, particular focus will be put on the implications for the development of business and corporate strategies.

### 5.3.1 Strategy and Methods of Top-Level Organisational Learning

As already illustrated, one corporate case (i.e. the top management of DT's headquarters) and three divisional cases were able to be identified in the case organisation DT group, where the top management of the fixed network, Mobile/Online and Systems business—as can be taken from the table below—had very different strategic challenges. As will be shown later in this section, this had corresponding effects and was reflected in the methods of top-level organisational learning deployed.


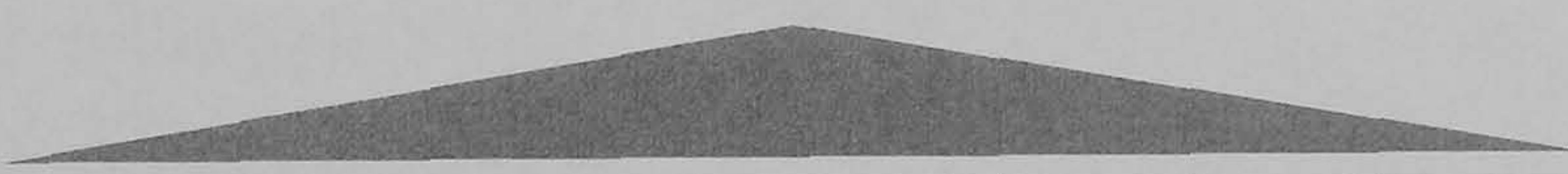
	Fixed network	Mobile/Online	Systems
<b>Business strategy</b>	<ul style="list-style-type: none"> <li>- Best quality strategy in the premium segment</li> <li>- Minimise the loss of market share</li> </ul>	<ul style="list-style-type: none"> <li>- Establishment and development of the business</li> <li>- Mobile: full range with comprehensive service for mobile communication;</li> <li>- Online: Development of new business with strategic partnerships</li> </ul>	<ul style="list-style-type: none"> <li>- Establishment and development of the business</li> <li>- Best quality for individual network and application concepts + bespoke services for large national and international clients</li> </ul>
			
<b>Corresponding learning challenges of the Top Management</b>	<ul style="list-style-type: none"> <li>- Strategic re-alignment towards a financially-run company</li> <li>- Fundamental re-organisation towards customer-oriented organisation</li> <li>- Cultural change</li> </ul>	<ul style="list-style-type: none"> <li>- New technologies and standards, but most of all new marketing and sales concepts</li> <li>- Establishment of appropriate organisation</li> </ul>	<ul style="list-style-type: none"> <li>- Build a company of international reach</li> <li>- Refinement of group products to a universal and uniform portfolio of high-quality, customer-specific products and services beyond national boundaries</li> </ul>
			
<b>Corporate Strategy</b>	<ul style="list-style-type: none"> <li>- Consistent optimisation of key financial indicators</li> <li style="padding-left: 20px;">- Increase the value of the company</li> <li style="padding-left: 20px;">- Higher company profile and a strong brand</li> <li>- Compensate for the loss of domestic market share through external growth and acquisitions at home and abroad</li> </ul>		






Table 25: Strategic Requirements for Top-Level Organisational Learning

While it was a matter of setting up a large organisation and former monopolist in line with the saturated market in the fixed network division, the challenges facing top management in the mobile and online businesses were developing a market and the complete set-up of the business on the basis of new, modern products and services.

The Systems division was also built from scratch, though they made great use of DT-internal products and services, which they then refined into bespoke solutions for national and international corporate clients. In contrast was the group viewpoint, according to which, there should be an overall improvement in key financial indicators and investments (e.g. in external growth) throughout the businesses.

This resulted in very different challenges and learning requirements for the individual top management teams. The question that arises from that, however, is which concrete initiatives and methods of top-level organisational learning derived from the formulated corporate and individual business strategies in this turbulent environment, and which “learning styles”, as *Yeung et al.* (1999) call them, were applied.

The table below sums up those initiatives and methods for top-level organisational learning which were deployed either at corporate or divisional level and which the interviewed top managers themselves considered—irrelevant of how the learning results are to be evaluated—as having been important for top-level organisational learning.

Important approaches to TLOL:	Fixed network	Mobile/ online	Systems
Approaches at divisional level:	Played a role for TLOL?*		
Top Mgt. Training		No	No
Regrouping around required competencies		No	No
External recruiting			

Dismissals/ deliberate turnover			
Restructuring		No	
Approaches at corporate level:	Played a role for TLOL?*		
Spin-Off in separate subsidiaries	No		
Diversification	No	No	 (Merger with dSH)
IPO & Joint branding			
Use of central functions and resources		No	No
Acquisitions			
Four-pillar- strategy (business redefinitions)			
Top Mgt. Training			
legend: = yes, but up to a very limited extent; = yes, to a moderate extent = yes, to a high extent = yes, to a very high extent No = was not deployed/ not relevant			

\*annotation: Evaluation based upon self-assessment by interviewed top managers as well as the analysis of corresponding documentation; Those initiatives and methods for top-level organisational learning which were viewed as the most important ones are highlighted in grey.

Table 26: Importance of Initiatives and Methods of TLOL

It was very apparent that the significance that the top managers interviewed attached to an initiative or method for top-level organisational learning did not necessarily correlate with the frequency of its appearance, which suggests that certain initiatives and methods were more powerful than others. This applied particularly to measures that the top managers held for important structures for top-level organisational learning, such as “Regrouping around Required Competencies” (Telekom KONTAKT), “Spin-Offs”, or “Diversification” (e.g., the merger with Debis Systemhaus (dSH) or the implementation of the “four-pillar strategy”. Their particulars are looked at in more detail in section 5.4 on organisation.

Overall, it was found that DT's top management deployed principally on-the-job initiatives and methods for top-level organisational learning, which relate to what *Yeung et al.* (1999) called the learning styles "controlled experimentation" (with new products, processes, structures) and "competency acquisition" (e.g. through recruitment, acquisitions etc;), and which according to his research findings, are the most effective learning styles in turbulent environments. The overall emphasis on changes of the structuring of the organisation confirms *Kammel* (2000) who—similar to *Berends* (*Berends et al.* 2003)—considers structures and executive learning as powerful, parallel, inseparable processes, which are strongly interrelated and which continuously influence and control each other. The strong focus on external recruiting of the divisional top management groups however relates to *Simon's* (1991) suggestion according to which organisational learning can also take place by 'ingesting' holders of knowledge, the organisation and/or top management did not previously have.

If you compare the divisional approaches with one another, it is clear that these are quite different. Whereas the top management of the fixed network business put a stronger emphasis on what *Hedberg* (1981) called "unlearning" and related personnel and structural measures to adapt and align existing resources within a large organisation to required competencies, the focus in the other, initially small, but fast-growing, divisions was on rapidly sourcing on the external labour market the competencies needed for the establishment of these new businesses. In this respect, compared to the new businesses, the fixed network business put a stronger emphasis on *Yeung et al.'s* (1999) learning style, 'controlled experimentation', whereas Mobile/Online and Systems mainly applied the learning style 'competency acquisition'. In both cases, off-the-job training by means of top management training played (see e.g. *Antonacopoulou 2002*) a subordinate role in the organisational learning of DT's top management. Despite a long "tradition of training" in the former state utility, with comprehensive, time-intensive training courses even at the



top level, off-the-job training was seen as unsuitable for rapidly gaining the required competencies (see section 4.4.3.1)<sup>146</sup>. Instead, after the privatisation and the subsequent derestriction of access to the external labour market, appropriate hires were made. This brought in a series of people for key positions with the required specialised knowledge, and according to a member of the fixed network division board, “*the right attitude*”. This confirms the point identified by *Kammel* (2000, p. 659), and *Beer et al.* (1990) that training programs can only increase the probability and efficiency of strategic change and learning, but do not change organisational behaviour as they do not affect enough elements in the system.

The analysis of the corresponding documentation established that, in addition to the projects and methods for TLOL named by the top managers in interviews, there had also been initiatives that match the learning styles “*benchmarking*” and “*continuous improvement*” (compare (Yeung et al. 1999)). However, these clearly only played a subordinate role, as can be seen in the number, scope and duration of such activities and projects, and also in the comments by top managers. (see section 4.4.2.3).

This leads to the conclusion that *Yeung et al.*'s (1999) model of learning styles, which was based upon a study with middle managers, can also be applied to top managers. These findings indicate further that also at top level the choice of the ‘right’ initiatives and methods for top-level organisational learning depends on contextual considerations.

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<sup>146</sup> It could be found that after previous measures had been stopped due to a lack of success, the later restarted attempt by DT headquarters at a top management training initiative failed due to a lack of interest on the part of the group board in the content of the training. (A member of the corporate board: : “*I don't think much of training and coaching.*”; see also section 4.7.3). This in turn caused frustration and raised transfer-problems for those top managers who did not perceive the training as an incentive (compare Salaman and Butler 1994).

### 5.3.2 Business versus Corporate Strategies

However, it would be too tempting to similarly judge the target group top management analogous to *Yeung et al.* that “*Experimenters Are High Performers*” (Yeung et al. 1999, p. 61). This would namely suggest drawing the conclusion that in that fast changing environment, these learning styles were not only effective, but always led to beneficial results. As can be taken from table below, this was not always the case. The evaluation by the top management is further supported by the evolution of the financial performance indicators of DT group (compare section 4.2.4), which ended up in a record loss for DT group of the extremely large sum of 24.6 billion Euro in 2002. Further evidence for the not exclusively positive results could likewise be found in some DT internal auditing reports (e.g. DT internal audit report, Nov. 27, 2002 on restructurings in the fixed network business).

Important approaches to TLOL:	Fixed network	Mobile/ online	Systems
<b>Approaches at divisional level:</b>	<b>Evaluation of the impact of Divisional Approaches to TLOL*</b>		
Top Mgt. Training		./.	./.
Regrouping around required competencies		./.	./.
External recruiting			
Dismissals/ deliberate turnover			
Restructuring <sup>147</sup>		./.	
<b>Approaches at corporate level:</b>	<b>Evaluation of the impact of Corporate Approaches on TLOL*</b>		
Spin-Off in separate subsidiaries	./.		
Diversification	./.	./.	 (here into the IT business through the merger with debis Systemhaus)
IPO & Joint branding			

<sup>147</sup> These measures were viewed by the top management as a means to lower costs and improve operational efficiency or to eliminate organisational slack (see e.g. Dutton and Freedman 1985). *Yeung* (Yeung et al. 1999, p. 32) notes in that connection, that organisations are more likely to learn from direct experience if they have sufficient slack resources.

Use of central functions and resources **		./. (due to Spin-off)	./. (due to Spin-off)
Acquisitions			
Four-pillar-strategy (business redefinitions)			
Top Mgt. Training			
legend:  = rather negative  = rather neutral  = rather positive ./. = not affected by that initiative/ method			

\*annotation: Evaluation based upon self-assessment by interviewed top managers as well as the analysis of corresponding documentation especially DT internal auditing reports;  
 Those initiatives and methods for top-level organisational learning which produced rather negative/detrimental results are additionally highlighted in grey.

\*\* mainly so-called "Personalserviceagentur" where staff was allocated that could not be made redundant for legal reasons (e.g. civil servants, ...etc.)

Table 27: Divisional and Corporate Approaches to TLOL

In contrast to the findings of *Yeung et al.'s* (1999) research on middle managers, the findings of this study on DT's top management suggest that the interaction of corporate and divisional strategies and resulting deployed initiatives and methods is rather crucial for effective top management learning to occur. As can be taken from the table above, corporate approaches such as mergers & acquisitions or the implementation of the four-pillar-strategy often produced undesired, partly detrimental learning results. According to the affected top managers, they additionally often triggered detrimental dynamics at the divisional level. It could thus be found (see table above) that e.g. after some large investments in acquisitions by the group management, the scope and frequency of restructuring and cost-cutting measures in the fixed network segment increased so much that this was not just seen as "damaging" or "unacceptable" by the top managers. Even the group auditors carried out an audit into the negative consequences of the frequent restructuring (DT internal audit report, Nov. 27, 2002) on the orders of the board.

Similar developments could also be observed in the Systems business after the merger with debis Systemhaus, where the fluctuation at the top level as well as the number of external hires and restructuring projects increased hugely after the “decreed” merger. It was so pronounced that the Systems top management were not only seen by colleagues as a “disorderly crew” with unclear direction and a lack of cohesion. As corresponding documentation showed—at times three organisational structures applied simultaneously:

1. Those to be found in the formal procedures (i.e. job and organisation plans etc.),
2. Those that were lived but not yet shown in the formal procedures,
3. and the new ones that the Systems management board had already decided upon as a new organisation and that were lined up for implementation.

These symptoms, which might be caused by what *Campbell et al.* (1995) called wasteful investment or diversification into new businesses, presumably result from subtle differences between the businesses (here telecommunications and IT) and a lack of sufficient understanding of the critical success factors in the business on the part of headquarters. The latter aspect will be considered in more detail in section 5.5.

Against that background, this “experimentation” with new services, processes, structures, ... etc. cannot at all be viewed as effective, regardless of which criteria one could now apply to measure effectiveness. Particularly because the organisation increasingly concerned itself with itself.

That *Yeung et al.* (1999) did not identify this critical aspect for effective top management learning, which forms the basis of the interaction between corporate and divisional strategies and resulting approaches to top management learning, might on the one hand be attributed to the fact that *Yeung et al.*'s research was concerned with studying mostly

middle managers who are per definition less concerned by potential conflicts of goals between corporate and business strategies. On the other hand it might be attributed to the fact that *Yeung et al.*'s study was carried out mainly in larger companies in mature businesses, whereas in this study on DT's top management, there was a mix of fast growing and mature businesses as well as of smaller and larger organisations within one large group.

In practice, however, an increasing number of top managers in large companies may increasingly be confronted by this mix, with the advent and growth of diversified firms with a corresponding divisionalised structuring. These top managers increasingly have to consider the vested interests of both the units and the group, and have to think in terms of relationships and dependencies. Not without reason did *Finkelstein and Hambrick* (1996, p. 8) call for more attention to be paid to these managers in decentralised firms in studies of top executives in such firms.

### **5.3.3 Strategy Development in Divisionalised Firms**

The described partly even detrimental effects of the deployed initiatives and methods for top level organisational learning raised the question why these effects occurred.

The findings of this study suggest that the lack of coordination of the deployed initiatives and methods for top-level organisational learning is responsible. It could be found that corporate launched initiatives and methods primarily focussed on the capital market (e.g. IPO, mergers & acquisitions, four-pillar-strategy etc.), whereas initiatives and methods at divisional level were more strongly aligned with the customer market and organic growth. This inevitably led to conflicts in goals, which were clearly not sufficiently solved by the formal, so-called "Integrated Planning and Management Process" in the case organisation, in the scope of which goals were formulated and cascaded. For want of another platform to develop and harmonise strategies, a group-wide, coordinated,

strategic approach with a view to both customer and capital markets could not be achieved.

Evidence for the apparently lacking involvement of above all divisional top managers in the group's strategy development and corresponding decision-making could be found in that even central strategic questions were not clear in the businesses. This is clarified in the table below with statements by divisional top managers on the acquisition strategy:

Typical statement of a top manager from the following business....	Interview statement concerning the group's acquisition strategy:
Fixed network	<i>"As far as our acquisition strategy is concerned, we have to define clear fields of expansion,..."</i> (section 4.4.3.2)
Mobile/Online	<p><i>" ... as it was the group's CEO who decided to do it although it was a mistake, it was very easy for the divisions to deny responsibility. They didn't make the decision.... "</i></p> <p><i>"Internationalisation was not clearly defined.."</i> (section 4.5.3)</p>
Systems	<p><i>"The merger with debis? We knew nothing. We didn't even know what Dr. Sommer (annotation: CEO of DT group) wanted with debis. Then, suddenly they launched an integration project... "</i></p> <p><i>"Here [in the matter of international acquisitions] the question of integration is still unclear. We don't have a competitive portfolio and the respective national companies are not really being led."</i> (see section 4.6.3)</p>

Table 28: Acquisition Strategy from Business Perspective

These statements square well with the top management's overall assessment of the quality of the strategy development process, in which, according to *Mintzberg* (1995), learning processes play the crucial role. It could thus be found that according to more than 46% of all interviewed top managers, there was no satisfactorily shared common understanding of DT group's strategic alignment. 35% even spoke of a very poor shared understanding. A further 14% declined to comment. The reason for this overall bad assessment was given as the lacking link of corporate top management—starting with the

group board—to the divisional top management groups, which is why one inevitably concentrates on one’s “own” goals and strategies<sup>148</sup>. According to the criticism of numerous division managers, and also to self-critical representatives of headquarters, corporate level was badly grounded and lacked a feel for implementability. Above all, there was a lack of trust, of real interest in the assessments and experience of the top divisional managers, as well as a lack of communication and exchange on these topics<sup>149</sup>.

The latter is supported by a corresponding group auditing report (source: DT internal audit report, Nov. 27, 2002, page 71) in which was additionally soberly noted:

*“... no analysis of previous measures was used as a basis for the further planning of measures.”* (compare section 4.4.3.2)

This suggests that the necessity of more intensively involving the top managers from the divisions and of learning from their experiences was clearly not seen at group level. This is supported by the fact that top management meetings at the group level during the tenure of CEO Dr. Sommer (1995–2002) actually only took place once a year as a rule<sup>150</sup>, and then in the highly-controversial format mentioned in section 4.3.2.

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<sup>148</sup> This conclusion is suggested by the following quote from a former manager who headed the group’s strategy department: “The best strategy is the one nobody knows.”

<sup>149</sup> A divisional senior HR manager reported for instance of a top management meeting which took place shortly after some costly acquisitions:

“The board of directors do nothing to involve the top management. The last top management meeting in December was a show-event – only appeals. Issues such as strategy, culture, the integration of new acquisitions or finance schemes were not discussed. These themes were simply presented. I was shaken. A member of the corporate board of management presented the latest cost-cutting programme. On the last chart, corresponding measures had been presented including ‘no more biscuits during meetings, reduction of subscriptions for newspapers’, etc. Impertinent! I mean there were people from the business divisions ... who were in charge of very important budgets, of billions! At the same time the board of management did not set an example. They kept their Lear jets, they had their plates with bite-sized fruit and biscuits during their meetings, etc. The highlight of that meeting followed later on. Somebody asked where the billions that would still be missing after the presented measures would come from? A board member answered to this question that we could not talk about that because otherwise we would find an article about this discussion in tomorrow’s newspapers. So much concerning discussion about strategy, a shared understanding of strategy and trust at top management level....”

<sup>150</sup> The only exception was the introduction of the T brand. One of the CEO’s direct reports in DT’s headquarters put the further course in a nutshell: “The dialogue culture [between the CEO and the top management] we had in the times of Ricke sen. became stunted in the era of Sommer.”

The lacking involvement and inadequate strategy development process—as emerges from the individual cases (see table on acquisition strategy above for an example)—led to concrete consequences for top-level organisational learning:

- Firstly, it was unclear to many top managers what the goals were.
- Secondly, the divisional top managers did not feel responsible for the quality of the implementation.

Both surfaced in the case of the acquisition strategy as lacking integration or quality of integration projects, which was also referred to in corresponding DT internal documentation (e.g. Deutsche Telekom 2002) .

This confirms the point made by *Quinn* (1980) that for effective learning to occur, above all those with most specific knowledge or who have to carry out the decisions have to be sufficiently and systematically involved in strategy development. It also mirrors the suggestion from numerous authors and researchers (e.g. *Humble* 1973; *Stewart and Stewart* 1981; *Lloyd* 1990; *Hoeksema et al.* 1997; *Eisenhardt et al.* 1998) that real and effective learning to take place at top level requires that based upon regular and/or frequent interaction the top managers themselves recognize a strong learning need, understand the meaning of the learning challenge and make the decision to engage in the learning process. This suggests in turn that in a divisionalised firm it is not enough for effective top-level organisational learning to occur to have a corresponding strategy development process for business strategies at divisional level.

In fact, the findings of this study suggest that top managers in such companies urgently need inter-divisional platforms for strategy development, also with regard to the implementation of corporate strategies and to coordinate and harmonise corporate and business strategies. In the absence of corresponding platforms or processes for the concerned top managers, corporate strategies bear the risk to produce not effective top-level organisational learning.



#### 5.3.4 Summary Component Strategy

This section concentrated on the analysis of both business as well as corporate strategies. It could be found that different initiatives and methods for top-level organisational learning derived from different strategies. This corresponds with the learning styles “*controlled experimentation*” (with new products, processes, structures etc.) and “*competency acquisition*” (e.g. through external recruiting, acquisitions etc.), which *Yeung et al.* (1999) identified as the most effective ones in a turbulent environment in his study on organisational learning of middle managers, which suggests that *Yeung et al.*'s model can fundamentally be applied to top managers. It could be found that different focuses with regard to the deployed initiatives and methods for top-level organisational learning are not just attached to contextual considerations, but also result from the corresponding need for unlearning (Hedberg 1981).

However, a noted limitation was that only an indirect connection between the frequency of the appearance of certain methods and initiatives and their significance for TLOL could be identified. Furthermore, the selected methods and initiatives, contrary to *Yeung et al.*'s (1999) suggestion, did not always lead to effective top-level organisational learning or beneficial results in an environment of turbulent change. Instead, partially undesired learning results occurred due to the insufficient interaction between corporate and divisional strategies and corresponding methods and initiatives for top-level organisational learning. To make *Yeung et al.*'s (1999) model applicable for top managers in diversified firms, it therefore needs to be complemented correspondingly. One can additionally derive particular demands on strategy development in diversified firms from the findings. From a learning perspective, platforms for the development and harmonisation of both corporate and divisional strategies are mandatorily required if effective top-level organisational learning should occur.

## 5.4 Organisation

According to *Klimecki* (1997), the top management and the organisation form an inevitable learning community. This suggests that top-level organisational learning cannot be understood without consideration of the interactions with the organisational context, or to put it another way, when the top management and the organisation are considered as separate subjects of learning. For that reason *Berends* (Berends et al. 2003) claims to differentiate between agents of learning who undertake actions and interact and organisational references (e.g. resources and capabilities of the organisation) for analytic reasons only.

In this section the specific characteristics of the component “organisation” and their impact on top-level organisational learning will be analysed in greater detail. This will contribute to the understanding of which organisational factors foster or hinder top-level organisational learning. A particular emphasis will be put on inertial forces such as the size, age and culture of the organization, on the firm’s resources as well as on which influence they exerted on top-level organisational learning. Furthermore, a special focus will lie on the frequency of organisational change as well as on the structuring and restructuring of the organisation which is following *Kammel* (2000, pp. 382) not only a fundamental object of executive work but simultaneously result of managerial learning.

Against the background of the above-mentioned potential shortcoming of an isolated consideration of the “organisation” component, reference is made to section 5.7 on the dynamic interrelationships between the components of the conceptual framework of this study.

### **5.4.1 Complexity of the Organisation and Top-Level Organisational Learning**

The corresponding case organisations did not only differ concerning the learning challenges they had to face (see section 5.3.1) but also as regards the main characteristics of the organisation. As will now be shown the organisational context influenced top-level organisational learning in many ways.

The findings of this study suggest that a crucial point is what the interviewed top managers called “*complexity of the organisation*”. More than 3/4 of the interviewed top managers—and here above all top managers with a short tenure in the organisation—identified Telekom’s complexity as the strongest barrier to top-level organisational learning. This barrier was recognized by the interviewed managers as strongest at the corporate level, in the Systems business as well as in fixed network business<sup>151</sup>.

However, what precisely was meant by “organisational complexity”, what its sources were and exact effects on top-level organisational learning, and what the top management did in order to overcome that barrier will be analysed in greater detail in the following sections.

#### **5.4.1.1 The Impact of Size and Age of the Organisation**

It could be found that the main problems with organisational complexity for top-level organisational learning occurred in the fixed network business and at group level. According to the interviewed top managers themselves—and here above all external hires—these problems consisted to a large extent in the difficulty of understanding “*how Telekom ticks*” (quote of an interviewed top manager in the fixed network business).

This was on the one hand attributed by the interviewed top managers to the large size of the organisation which became evident,, e.g. in the volume of business activity and

number of employees (see table below), the resulting large number of levels of the organisation and high division of labour. On the other hand it was attributed to DT's age and heavy bureaucratic organisation<sup>152</sup> (see Darbishire 1997), which was often caused by what *Drucker* (1994) called the "theory of the business" of a public authority with a public mandate.<sup>153</sup>

	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"	Case "Headquarters"
<b>Age and origin of the organisation</b>	Mature Formally arose 1990 from the previous 'Authority for Posts and Telecommunications'	Young Spin-Off of a mobile subsidiary in 1993	Young Spin-Off of an online subsidiary in 1996	Young Spin-Off of a Systems subsidiary in 1994	Mature Formally arose 1990 from the previous 'Authority for Posts and Telecommunications'
<b>Size of the business (compared to other parts of DT in 2002)</b>	Very large	Medium	Small	Medium	Very large**
<b>Sales (in billion €) 2002</b>	25.4	19.7	1.8	11.3	53.7
<b>No. of employees 2002</b>	148,900	41,597	2,814	43,292	255,969
<b>Impact of size and age on top-level organisational learning*</b>	Very high	Low	Low	Low	Very high

Source: annual reports DT group 1998 and 2002

\* Evaluation by interviewed top managers in comparison with other parts of DT's top management

\*\* corresponds to DT group

Table 29: Age and Size of the Case Organisations

In the assessment of the top managers interviews, the direct consequences of the size and age of the organisation on top-level organisational learning were that top managers had to oversee and design very large organisations with a large body of partly

<sup>151</sup> This estimate squares well with the top management's own estimate of the 'learning performance' of the various parts of the top management (compare section 4.9), where the top management of the headquarters and of Systems business came out with the lowest results.

<sup>152</sup> Annotation: According to the assessment of the top managers from the technical and field organisation of the fixed network business, this was due to the huge experience and knowledge of organisational trade in mass telephony (see section 4.4.2.2). Even if "what was offered worked" (quote of a top manager who headed a technical department in the fixed network business), there was clearly a lack of the necessary flexibility, procedural speed and efficiency.

<sup>153</sup> Annotation: As a public authority and provider of infrastructural service structures, routines, employment conditions etc. had been set and defined in detail by public regulations and parliamentary legislation.

idiosyncratic and tacit knowledge of how to run the business (Grant 1996). To do this required specific knowledge of the organisation, the coordination process and, with respect to longer action-response times, patience. For, on the corporate level as well as in the area of fixed networks, it often took a lot of time until initiatives for top-level organisational learning, such as organisational measures (compare section 5.3.2), were implemented and demonstrated any results. The analysis of the time periods of corresponding projects confirmed that such initiatives on the corporate level and in the area of fixed networks took on average 2–3 years; in some cases, even 5 years (e.g. Telekom KONTAKT (1992-1996)). Such long project periods, or to say it in the words of *March*— the “...distance in time and space between the locus of learning and the locus for the realization of returns ... ” (March 1991, p. 85), however, made it impossible for the corresponding top management groups to react quickly and spontaneously to changes in the market. Furthermore, given that top managers learn, according to *Kammel's* (2000) suggestion, mainly through the design of structures and what he called ‘structural leadership’, the top management’s opportunities to learn were limited by these inertial forces.

Other than that, it was evidently difficult to predict the right timing and which measures would have which effect on the organisation, especially for newcomers.<sup>154</sup> An externally-hired senior manager of the fixed network business put it in a nutshell:

*“How could we know that is was the right moment for a certain development? And if we thought it was the right moment—how could we know afterwards what would really be the outcome of the planned initiative?”*

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<sup>154</sup> Annotation: Without exception, the interviewed external hires from headquarters and the fixed network business expressed experiencing difficulty with the complexity of Telekom’s organisation.

The described phenomenon confirms the point made by *Hannan and Freeman (1984)*, who found that co-ordination processes in large, mature organisations such as DT group or the fixed network business require more time and effort due to the sluggishness of the organisation. The findings also mirror the suggestion of *Finkelstein and Hambrick (1996)*, according to which, 'inertial forces' limit executive latitude, which means that top managers in large, mature organisations not only operate, but also learn under severe constraints.

This raised the question of what the top management did to overcome or deal with these constraints. Two different approaches could be identified in this study.

It could thus be found in this study that the top management created subsidiaries in new emerging, fast growing markets to "*follow changes much more easily*" (*quote from an interview*) and break with the ballast of the past. Starting with the mobile business, the creation of these companies in new business areas served, according to interviews with senior managers and documentation (see Blank 1996), explicitly to minimise inertial forces, to increase flexibility and to bypass the highly centralised, bureaucratic, and cumbersome formal organisation of Deutsche Telekom (see annual report DT group, 1995). In addition, the subsidiaries, which emerged from corresponding projects, were run exclusively according to financial goals in the first years after their founding.

The creation of such subsidiaries had an important impact on top-level organisational learning, as it enhanced, in line with *Finkelstein and Hambrick's* suggestion (1996), executive latitude and thus expanded the top management's repertory of learning options. It could thus be found that the top management of these initially very small and flexible subsidiaries could develop from the start relatively untouched from the rest of the organisation. As everything was built up from the scratch, they could concentrate on learning new things and on the development of these new businesses.

The success of this approach can, apart from corresponding statements of interviewed top managers, be derived from the fact that the decision on the spin-off of the online business was also officially justified with the positive experiences of the earlier spin-offs of Mobile (1993) and Systems (1994) (see annual report DT group, 1995).

As inertial forces resulting from size and age cannot be avoided in large, mature organisations (Hannan and Freeman 1984), the top management of such organisations in turbulent periods is particularly challenged. The study indicates that mixed top management groups consisting of company veterans and new, external hires can deal best with these constraints.

This is supported by the fact that in the fixed network division, according to the former head of the top management HR department, neither the “old” Telekom top managers, who rejected cooperation with and the ideas of the new top managers, nor the external hires, who tried to implement changes alone without the cooperation of the “old” Telekom managers, could gain lasting purchase. This could only be achieved by externals at headquarters due to the lack of operational responsibility. The external hires in the fixed network division had left the company once more after 1–2 years’ service, according to some of the interviewed top managers from the fixed network division. The corresponding old “Telekomers” had received consultant contracts or taken early retirement. Directly after the company’s privatisation in 1995 and the release of legal restrictions, there was indeed great personnel movement at the top level. As can be taken from a DT internal paper from the top management HR department—of the 340 top managers employed by Deutsche Telekom as of 31 December, 1995, 125 left the company within the following three years (i.e. by 31 December, 1998), of which 13 from the fixed network division and headquarters became so-called “special advisors” and a further 18 took early retirement.

A further 90 from other parts of Telekom left the company for other reasons, whereby the document detailed the reason for leaving (e.g. resignation, dismissal) no further.

Further evidence could be found in the interviews. To repeat (see section 4.4.3.2) the words of an interviewed externally-hired top manager, holding a position in DT's headquarters:

*"The mixture of external people means 'push ahead' and civil servants means 'slow down' is a great, yes perfect mixture."*

In total 5, interviewed top managers from the fixed network business and DT's headquarters justified this assessment by saying that experience had shown that managing complex change processes required top managers who were very familiar with the organisation and the "Telekom" business. They would have calculated the effects of organisational measures more realistically, and would have been able to make a significant contribution to adapting the organisation to new needs. For this reason, explained the responsible manager from the group organisation, there had been moderate external recruiting in the fixed network division in comparison to other top management groups. In addition, new, externally recruited top managers contributed completely new know-how that was absolutely necessary for the future direction of the organisation.

This statement is additionally supported by the significantly better assessment by the interviewed top managers of the learning performance of the fixed network business's top management as well as the deployed methods of TLOL compared to the top management at headquarters. It was found that in 2002, the top management at DT's headquarters only had 3 top managers with longer tenures due to heavy external recruiting and personnel turnover.



As mentioned before, a large, mature organisation will however touch limits. Even if there are a great number of managers available who “know how things are done“, a large, mature organisation seems to have no possibility to develop new, fast-growing markets with the “old” organisation (see “fixed network case”) due to the inertia of the organisation. The example of Mobile showed that the top management learnt to avoid organisational inertia by forming smaller organisational units, and to thereby create greater room for action (and therefore for learning).

#### **5.4.1.2 Cultural Constraints**

However, there would be a danger to concur that top-level organisational learning in new created subsidiaries cannot be constrained by inertial forces. This was largely the case in the Mobile and Online divisions, in the estimation of the interviewees. How, then, should their simultaneous assessment that the high complexity of the Systems organisation was detrimental for top-level organisational learning be interpreted? And this although the Systems organisation was, like the Mobile and Online organisations, a newly-created subsidiary and, compared to the Mobile business, of comparable size and age?

In line with expectations, the interviewed top managers associated the top management of the fixed network business and pre-privatisation headquarters, where the bulk of the civil servants originated, with cultural constraints and old-fashioned behavioural patterns that were regarded as no longer conducive to attaining targets in the new, private sector environment characterised by intense competition. The “softer dimension” of the legacy of the public authority that refers to culture manifested, as suggested by *Yanow* (2000), in these parts of the top management in many ways<sup>155</sup>. The interviewed top managers

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<sup>155</sup> Annotation: E.g. in language, status symbols or artefacts or in actions and processes. It was, for instance, found that business planning at Telekom in its beginnings was oriented to personnel instead of results and costs, and was simply delegated to a clerk.

themselves—and here mainly the externally-hired top manager—mentioned above all lacking performance and customer orientation, a lacking willingness to take risks and a large hierarchical and physical distance to the workforce. The “old Telekomers” in top management, in contrast, all emphasised the great cohesion with reference to the “Telekom family” (quote from several interviewed top managers of the fixed network business and the headquarters).

However, as could be found in this study, the main impact of these cultural aspects on the learning of these parts of the top management became evident in the readiness to unlearn or learn as well as the cohesion of the top management and not mainly on organisational level. Therefore, these latter aspects will be considered in greater detail in section 5.5 on the top management (especially subsections 5.5.1 and 5.5.2.3).

The Systems case, however, illustrated, that DT’s culture is no monoculture and that cultural constraints can massively hinder top-level organisational learning. In this case, in contrast to *Finkelstein and Hambrick’s* (1996) suggestion, inertial forces are not limited to large, mature organisations with an entrenched company culture. This is supported by the bad evaluation of the learning results of the top management of the Systems business. With the exception of only two top managers from the Systems business, all interviewed top managers unanimously considered the top management of the Systems business as that part of DT’s top management with by far the worst learning performance in the group. They justified this assessment with the large cultural problems at Systems. This confirms *Van den Bosch et al.’s* point (1999) that strong cultures in general represent a severe inertial constraint, slow down attempts at change and leave “... little room for absorbing outside sources of knowledge in ways that contradict shared beliefs” (Van den Bosch et al. 1999, p. 557).

It was found that the merger of the Systems subsidiary with the similar-sized subsidiary of an equally traditional company, Daimler-Chrysler, (i.e. debis Systemhaus), which was based on a decision by the group management, did in fact lead to this development.

Following *Yeung et al.*'s (1999) suggestion competency acquisition—e.g. by means of a merger or acquisitions—counts among the most effective learning styles in a turbulent environment. However, in the Systems case, the merger with debis Systemhaus led to very detrimental results. What was meant at corporate level as an attempt to, as *Yeung et al.* (1999, p. 37) call it, 'buy competencies' ended 6 years after the creation of the Systems subsidiary (see section 4.6), and in the absence of a clear integration strategy, in a poorly managed integration project (see also section 5.3), in which two strong corporate structures (i.e. Telekom and Daimler-Chrysler) collided. The result was, as Systems' top managers in particular reported in interview, huge conflicts between the two camps. As could be taken from corresponding documentation (see HR strategy DT group, 2001), this led to numerous personnel changes and the exit of key people up to the top level. Outwardly, the "struggle between the cultures" became visible in a very complex, three dimensional<sup>156</sup> matrix organisation, that was in permanent flux due to hindersome and exhaustive power struggles between influential top managers implementing their changes. In so doing, they altered themselves in part so quickly, that the top executive managers of the Systems business often, in accordance to their own specifications, worked in parallel to several organisation structures (see also section 5.3.2)<sup>157</sup>. While the organisation's structure sometimes changes several times a year in this way, the duties and responsibility of the affected top executive managers also changed. The top managers of the Systems business reported in the interviews that the complex reviewing processes and the constant changes in the organisation overtaxed Systems' top management evidently to such an extent that it was increasingly involved more with itself,

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<sup>156</sup> The matrix organisation of the Systems business was arranged around businesses, services and regions.

<sup>157</sup> According to statements made by managers of the Systems business, current organisational structures were often not completely implemented organisationally when a new restructuring had been decided upon and was pending implementation.

survival in the organisation and maintaining the ability to function for their own department than with sustainable development of the business (see section 4.6.3). At the same time, the top executive managers of the Systems business made the self-criticism in the interviews, that the numerous organisation changes had developed an “*undesired self-dynamic*” (annotation: quote of a senior manager of the Systems business), that even if the results of the restructurings seemed partly questionable, one was too intimidated by the organisational or personal consequences that would result from contradiction.

The statements by the top executive managers in mobile and online business, who described their colleagues as the “*disorderly crew*” and even a “*headless chicken of an organisation*” (quote by a senior manager of the mobile business), also lend weight to the conclusion that Systems’ organisation’s form and fate increasingly eluded active monitoring and control.

And if one assumes, “.. *that the bulk of managers’ learning takes place in the workplace, as a result of their work and role activities*” (Antonacopoulou 2002, p. 5), such an organisational environment, in which work and role activities are permanently changing at short intervals as in the example at hand, consequently detrimentally affects TLOL. This is, for instance, confirmed by a former Systems senior manager who explained:

*“The creation of experience was not possible. If somebody established strategic planning... After 1 up to a maximum of 2 years... the people were all gone and the know-how got lost again. This short-term orientation was especially difficult with regard to issues such as IT-strategy or innovations. In order to ensure a real development in these fields we have to find a way to ensure continuity—at least in these areas.”*

The Systems example makes clear that the approach of *Finkelstein and Hambrick (1996)* must be extended. The findings suggest that cultural constraints, even among younger and substantially smaller organisations (in comparison to the fixed line network), can

significantly limit executive latitude and so make the top management operate and learn under severe constraints.

These findings furthermore show that, in elaboration of *Finkelstein and Hambrick's* suggestion (1996), top managers not only play a passive role as regards inertial forces. Inertial forces such as size, age or cultural constraints, which determine the room to act and “learn” that top executive managers have, and thereby the influence they can have on learning outcomes, are not only a date, but can moreover also be systematically influenced through corresponding executive actions (e.g. through a merger or spin-off) or be caused by top management decisions.

#### **5.4.2 Formal Organisation and Top Level Organisational Learning**

Organisational structures are attributed, as shown in the literature review (see e.g. March and Olsen 1976; Senge 1990; Berends et al. 2003), a central role for organisational learning. Organisational structures and structural configurations are seen on the one hand as a subject of design by the top management, whereby the design of organisation structures are attended by learning processes (e.g. Senge 1990; Kammel 2000). On the other hand, organisational structures are viewed as the primary driver of change since they provide “... *the skeletal structure for all organisational decisions and processes*” (Wang and Ahmed 2002, p. 5) and thus define the framework for “*structural leadership*” (Kammel 2000, p. 382), similar: (Klimecki 1997; Berends et al. 2003).

Against that background and as shown in the previous section, structural interventions such as the spinning-off of subsidiaries (see section 5.4.1.1) can also serve as a means to overcome inertial forces by which top-level organisational learning is constrained. Just as the example of the implementation of the ‘four-pillar-strategy’ clarified, structures even have such a strong determining effect on top-level organisational learning that these structures themselves in contradiction to the agenda of the CEO triggered or benefited specific behaviour on the part of the top managers. This confirms the point made by

*Kammel* (2000) and *Berends et al.* (2003), that just as structures enable managers to plan, direct, organise and control the activities in the organisations (compare: *Mabey et al.* 2001), due to the specification of tasks, role expectations, etc., structures also specify a learning corridor in which the individual behaviour spectrum of the top managers moves. Hence structures channel learning processes.

Corresponding to the suggestion from e.g. *Kammel* (2000) and *Senge* (1990), working in formal organisational structures and their form and change are therefore of great significance for top-level organisational learning. It could, however, be found in this study that this does not apply to every change in organisational structure, but only under certain conditions. This can best be illustrated by the numerous OD-projects and restructurings of DT group. In spite of the great number of these projects within the period under review of this study—including the spinning-off of the subsidiaries and 18 major restructurings between 1990 and the beginning of 2003 alone—the interviewed top managers themselves considered only two restructurings, Telekom KONTAKT (1992) and the ‘four-pillar-strategy’ (2000), as having been important for the learning of DT group’s top management<sup>158</sup>. A top manager and former civil servant heading the technical division of the Mobile business gave the following reason:

*“All other projects and initiatives are a logical consequence of these projects and can be derived from that.”*

A further analysis of the interviews with top managers and documentation on DT’s OD-initiatives revealed that both of these projects differ in three main points from all other initiatives (see table below):

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<sup>158</sup> 36 out of 37 interviewed top executive managers regarded the four-pillar-strategy (launched in 2000) as very significant for top-level organisational learning. 32 out of 37 described Telekom KONTAKT (launched in 1992) as an additional key project for top-level organisational learning (annotation: multiple responses were possible), even though many of the interviewed top executive management did not belong to the corporation at the time of the KONTAKT-project. All other projects received 2 to 3 mentions as a rule, although, as said before, multiple responses were possible. 10 top executive managers responded, within this context, that acquisitions theoretically would have also been very important for top management learning. Due to a lack of a clear integration strategy, the international acquisitions were, however, initially to resume in their existing form as financial investments. For this reason, there were no changes in either the decision structures or in the collaboration at top level.

- I. They led to a fundamentally different allocation of power and resources.
- II. A basic change in the decision-making processes was involved.
- III. A new DT-internal definition of the group's top management happened as a consequence, which is confirmed by the projects' schedules and the implementation of new management structures at group level (see figure below).

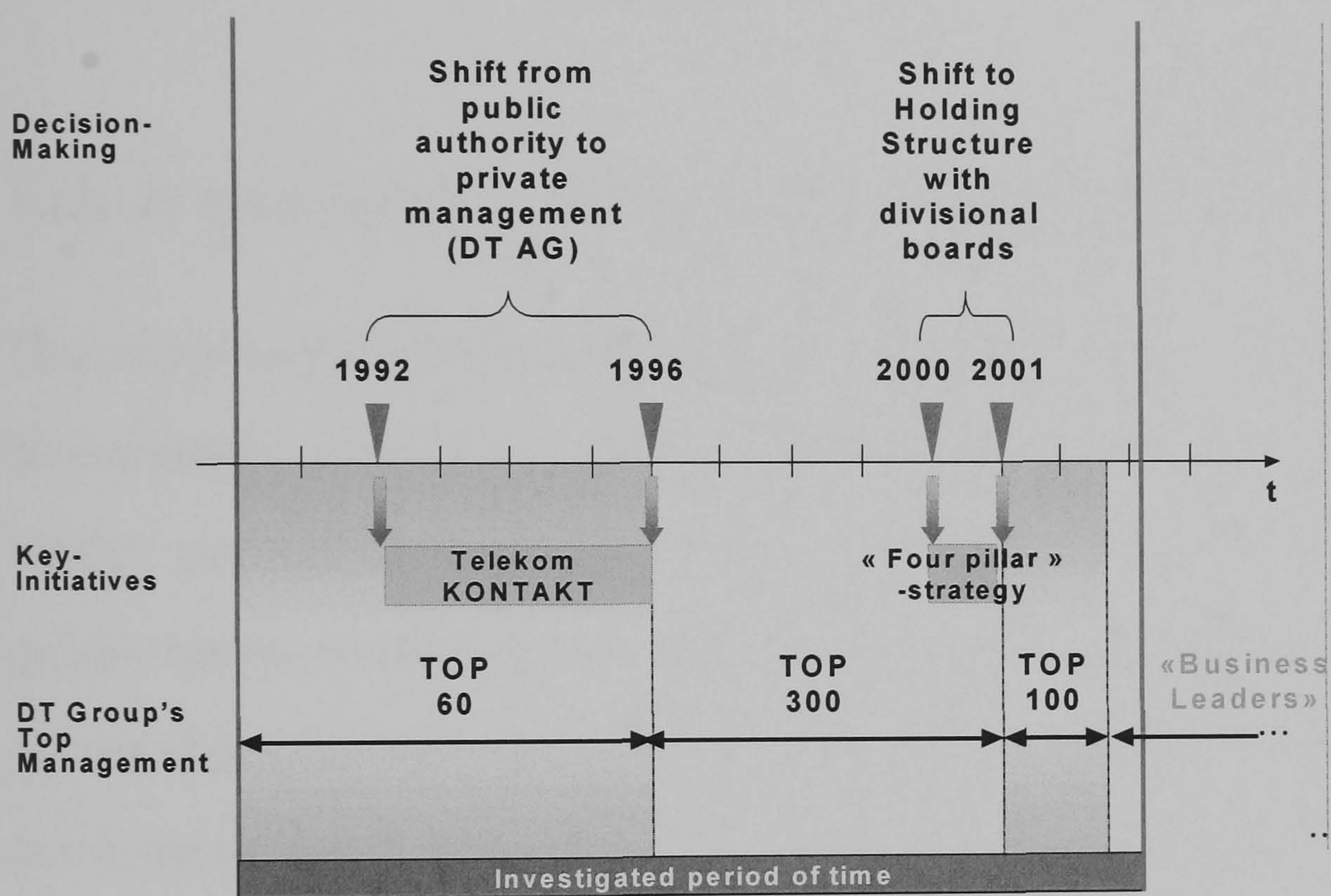


Figure 10 : Key Initiatives and the Definition of DT Group's Top Management

The three above named aspects are reflected in the observable organisational changes (see table below), in a varying size of the top management and ,as will be considered in greater detail in section 5.5 on the top management, in a principle skill-shift at top level.

<b>Completely new allocation of power and resources</b>	Shift from technology to customer segments  (before: 4 technology & 1 customer division; after: 2 technology & 3 customer divisions + spin-offs mobile, Systems, online)	Shift from centralised organisation to a divisionalised organisation consisting of 4 self-contained pillars: fixed network, Systems, mobile & online
<b>Decision-making processes</b>	Shift of power from the minister to the management of the board (→ team decisions)	Decision-making in corporate management board as well as in new implemented divisional boards
<b>Formal definition of DT's top management (group level)</b>	Increase of number of top managers at group level  (TOP 60 → TOP 300)	Decrease of number of top managers at group level  (TOP 300 → TOP 100)  Simultaneously implementation of divisional top management groups <sup>159</sup>

Table 30: What made the 'Case-Key-Initatives' Important for TLOL

Thus in the course of Telekom KONTAKT, market and customer orientation with first-time decentralised responsibility was primarily emphasised (source: (Deutsche Telekom 1992)); customer divisions and thus market-similar functions received an especially greater weight altogether on the top level in comparison to technology divisions and their corresponding technical functions. Thus several top managers explained in similar ways to the following senior manager, who held a management position in the fixed network business during the time of Telekom KONTAKT:

*“Telekom KONTAKT created pressure, obliged top managers to overcome old thinking and confront themselves with new questions. Otherwise, they were quick to leave and disappeared either into insignificance or were banished from the organisation completely.”*

Within the framework of the “four-pillar strategy,” an even broader focus, and consequent orientation, towards selected market segments (i.e. fixed network, Mobile, Online and Systems) resulted in even more decentralized responsibility and delegation of the

<sup>159</sup> Fixed network business: Top Leadership Forum/ Leadership Forum; corresponds to ca. 100 or 300 top managers respectively; Systems business: Top Executives (TEC); corresponds to ca. 70 top managers; Online business: TOP 30; corresponds to ca. 30 top managers); Mobile business: Definition still in progress at the end of this study.



international activities of the respective pillars (see Telekom 2001). The fixed network business, that even followed the motto, “We are Telekom,” (quote by a senior manager fixed network business) suffered, due to the juxtaposition of very diverse, large and independent business units against Systems, Mobile and above all, Online. A great reduction in its own influence had become evident in that the fixed line network in 2002 only provided 20% of the group’s top management (see section 4.2.5). This, although 47% of the corporate profit had been gained there in 2002, 58% of the total personnel were involved and in 2002, the fixed line network was the sole business division that produced positive results.

This corresponds to a significant change of what *Mintzberg* (1992) called hierarchy of authority, through which flows the formal power to control decisions and actions. For, as shown, with the simultaneously changed allocation of power and resources decisions were made on a broader basis. However, in changing the balance of power and the decision-making structures towards a direction of more decentralisation and divisionalisation, this had, following the suggestion from *Van den Bosch et al.* (1999), effects on knowledge absorption and thereby the direction of organisational learning at top management level. Following *Van den Bosch et al.* (1999) a division form namely facilitates divisional knowledge absorption, and consequently learning with the development of their own businesses in view, but suppresses integration and thinking and acting in higher, group terms. From an organisational point of view, decentralisation allows—although perhaps at the cost of efficiency—higher flexibility and faster responses to local conditions in many different places. It presents, however, the danger of internal competition within the corporation, which is disadvantageous in converging markets. In the situation of the case organisation, this has also again had a negative effect on the quality of the collaboration at the top levels across the board; this will be further examined in section 5.5.

Following the suggestion of *Finkelstein and Hambrick* (1996), a changed allocation of power and resources also fundamentally leads to the (newly) powerful top managers receiving a greater amount of leeway. That naturally provides them great possibilities to influence strategies, in the development of which learning processes play a key role (see Mintzberg 1995). In that connection, it has to be borne in mind that following the suggestion from *Quinn* (1980), with regard to the quality of the learning process, the formal strategy development process is less important than the right compilation of the group of top managers who are charged with the development of the strategy. The latter, in turn, is reflected in the formal definition and composition of the top management (see also section 5.5).

To sum up, this study could show, that structures and changes therein are significant to top-level organisational learning under certain conditions. These requirements are specifically the principle change of the allocation of power and resources and changes in the decision-making processes, such as in the formal definition of Top Management. Someone who wants to provide significant impulses for top management learning in the face of turbulent change must consider these three basic conditions; otherwise learning success will remain limited.

#### **5.4.3 Frequency of Organisational Change**

As already shown in the previous section, the number and frequency of OD-initiatives tells us little about their relevance for organisational learning at top management level. On the contrary, there would be a danger to concur that many and frequent measures were tantamount to a high quantity and quality of learning at top level. This also became clear on the basis of the Systems case, during which numerous restructurings and cultural conflicts resulted from the merger (compare section 5.4.1.2). Additionally in the previous

section, it was shown that the interviewed top managers placed no or very little importance for top-level organisational learning on the majority of OD-initiatives.

However, this research was concerned with studying organisational learning at top management level and corresponding drivers and barriers, not as the espoused theory of top managers. The large number of OD-initiatives launched by the top management raised questions; particularly following the suggestion from *Sennet (1998)* and *Lounamaa and March (1987)* that too much organisational change even inhibits learning, or may produce chaos and instability.

It could be found that the bulk of the numerous restructuring projects—some of which were quite drastic—actually only affected the classical and the larger business division: the fixed network business (annotation: the restructurings in the Systems business were merger-related, see section 5.4.1.2). Between 1995 and 2003 alone, there were 13 major restructurings<sup>160</sup> initiated by the top management in the fixed network business (source: DT internal paper, Konzernforum Personal July 22<sup>nd</sup>, 2004). The majority of these measures (for Telekom KONTAKT and ‘four-pillar-strategy’, see 5.4.2.1) were explained by 4 interviewed top managers with the reasoning that it was important to keep this large organization in permanent motion. Only in this way could the requisite process adjustments resulting from constantly increasing cost pressure be achieved in this large organisation, the “excess” personnel levered out of the processes and successively released. In fact, it could be derived from DT’s annual reports that ca. 16,700 people were made redundant between 1995 and 1998 and another ca. 60,000 people were made redundant between 1998 and 2002 in the fixed network business. The growing Mobile

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<sup>160</sup> No less than 13 large restructuring projects could be identified in the fixed network business in the period from 1995 to 2003. In detail, these involved the following projects: Telekom KONTAKT, 1995: KNL; 1996/97: ZAT, 1999: PK/GK KNL; 2000: WENN, ZNI; 2001/02: T-Com classic, T-Networks, SLIM, T-Com Plus; 2002/03: NICE, PRISMA, Ergo.

and Online businesses evidently caught little wind of this<sup>161</sup>. The above-mentioned downsizing matches up well with the fact that 10 of the named 13 restructurings—so the large majority of them—were launched between 1998 and 2002—right after the liberalisation of the telecommunications market and in a phase of increasing competition and cost pressure. However, it means as well that the fixed network business underwent on average 2 restructurings per year. This suggests, following *Sennet* (1998) and *Lounamaa and March* (1987), that the individual and the organisation were no longer able to stand still and reflect on the past, which is detrimental for learning.

In point of fact, detailed discussion of the projects with top executive managers demonstrated—as shown in the fixed network case (see section 4.4.3.2)—that even the long-standing top executive managers themselves, put a lot of effort into interpreting the meaning, objectives, and results of the individual projects (in spite of the fact that large parts of the organisation underwent organisational change and that every time, thousands of employees were affected by these measures). Three interviewed top executive managers admitted that some individual top managers have even tried to promote “*their baby*” on their own to “*mark their territory*” or somehow distinguish themselves from the others for professional gain. To these ends, they had often brought in support in the shape of consultants who had also conducted similar projects in other companies.

This suggests that with some managers, it is obvious that their personal motives were of first priority. The majority of the interviewed top managers came, however, to the

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<sup>161</sup> On top of that, people were already used to frequent changes and these were generally regarded positively from the point of view of the employees on account of the strong growth. A top manager of the mobile business explained in the interviews:  
“T-Mobile didn't need many of these things [restructuring projects] on account of its much shorter history and its greater adaptability. The fixed network business has always faced the problem—and indeed still does—of extracting people out of the processes. That's inflexible. But perhaps that's also a slightly arrogant opinion.”

assessment that the situation here is rather more about changing for the sake of change<sup>162</sup>. Further evidence for this interpretation could be found in a comprehensive auditing report on restructurings in the fixed network business (DT internal audit report, Nov. 27, 2002, page 71). The report concludes that during the numerous OD measures, the top management neither had previous measures analyses, nor did they have sufficient key indicators and possibilities to control the measures, nor did they even commission retrospective investigations into the measures. Instead, the report analysed the significant detrimental effects for the wider organisation that resulted from the high frequency of change, and that an organisational change simply resulted in another.

This leads to the conclusion and confirms the point made by *Culley* (1989) and *Senge* (1990) that executives are action-oriented and lack self-reflective competence. At the same time, the time distribution of the projects (annotation: the frequency of change increased dramatically after liberalisation) suggests that the danger of certain activities developing a certain momentum of their own and eluding the active control of top management is particularly high in fast-changing environments. Especially in such contexts, there is therefore a strong need for a planned learning process and reflection on action (Baldwin and Lawson 1995).

The orientation towards action was evidently strengthened evidently through the reduction in personnel (annotation: it emerges from group organisation documentation that the introduction of the four-pillar strategy, for example, brought along with it a significant reduction in the number of possible management positions. There remained only ca. 6 to 8 positions in management). In the end, given the very significant number of people that had to leave, also managers up to the top were affected by staff reduction.

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<sup>162</sup> E.g. a representative of DT's organisation development department: "Telekom never gave itself and its managers and employees the necessary time to let something sink in. Nobody knew if something would have really yielded results. It had immediately been changed again." (see also section 4.4.3.2).

Thus, the areas of responsibility were also reduced; in the worst cases, top positions were completely eliminated. Against that background, the little importance that was attributed to those initiatives for top-level organisational learning could also be accounted for in the competition among managers for internal resources and hierarchical promotion, which *March* identified as a barrier to learning (March 1991). Competition additionally increased, as did the initiation of corresponding change projects, with the increasing scale of the external recruitment of managers (see section 4.6.3). For, according to *Gabarro* (1987) or *Kesner and Sebor* (1994, p. 357), a robust conclusion can be made with regard to the appearance of change after the take-over of a position by a new top manager. However, no simple conclusions can be made concerning the effectiveness of that change, as this is context-dependent.

Thus, the study demonstrates that, in a context of turbulent change, a planned learning process is most necessarily required. Furthermore, it demonstrates that top managers in such an environment control little of what they learn, and rather due to their action-orientation tending to “uncontrolled actionism”, which complements the corresponding literature.

#### **5.4.4 Availability of Financial and Relational Resources**

Important differences between the individual case organisations were also found as regards firm resources. As shown in the literature review these resources can be considered as an input and simultaneously outcome of learning processes. Resources play an important role for top-level organisational learning as they describe the boundary conditions for the realization of measures for adjusting the organization and so determine the top management’s spectrum of action options. As will be shown later, in this section played above all two resources an important role for top-level organisational learning: financial resources and the brand. These will now be analysed in greater detail.

#### 5.4.4.1 Financial Resources and Top-Level Organisational Learning

The table below reminds some financial key figures which illustrate the significant differences with regard to the scope but also the profitability of the corresponding businesses.

	Case "Head- quarters"	Case "Fixed Network"	Case "Mobile / Online"	Case "Systems"	"DT Group" in total	
<b>Key figures</b>						
<b>Sales 2002 (in billion €)</b>	./.	25.4	19.7	1.8	11.3	53.7
<b>Annual result before tax (in billion €)</b>						
2001:	./.	4.6	-6.4	-0.2	-0.4	-3.5
2002:	./.	3.5	-23.7	0.0	-2.0	-24.6

Table 31: What Financial Key Figures of the Case Organisation

The very negative results of the new businesses (i.e. all business except "fixed network") demonstrate that investments and strategic decisions were directly reflected in burdens on the results of the business activities<sup>163</sup>. In its most extreme manifestation, this was expressed in the record loss year of the group in the year 2002. The extremely high losses, especially in the mobile communication segment, were attributable to investments in licenses (UMTS) and acquisitions (in this instance, Voicestream). According to the group's assets analysis (see 2002 DT Group annual report), EUR 43.1 billion were invested in 2000 and EUR 37.7 billion in 2001 (for comparison: EUR 7.5 billion were invested in 1998).

The intense investments in infrastructure, licences and acquisitions can be seen as an indicator for the high capital intensity of the business, but also illustrate that very substantial funds could be invested—also incidentally for restructurings. Thus, more than 50% of the interviewed top managers considered the financial power of the company and

<sup>163</sup> As shown in the case of the fixed network business high investments in connection with the reunification in Germany were still able to be financed through the successful IPO.

the personnel to be fundamentally beneficial basic conditions for top management learning. Following *Finkelstein and Hambrick* (1996), this would speak for large managerial discretion and leeway for learning for top management. The extent of investments questions, however, if the new businesses Mobile, Online and Systems—despite their fast growth—would have been in a position under their own steam to realise such extensive investments. This interpretation was also confirmed in the interviews by a number of top managers from the headquarters and the fixed network business who—like the following top manager in DT's finance department—stated:

*„Many here—especially those in T-Mobile—literally tell themselves just how fantastic they are. They forget that they have been subsidised by the rest of the group.“*

It was furthermore found in this study that the preparation and the making of important investment decisions were limited to the person of the group's CEO himself, who was granted the corresponding decision-making authority. This can be derived from the fact that decisions on merger and acquisitions of the group's CEO were frequently criticised in the interviews as unilateral, isolated decisions. A directly affected top manager stated, for instance: *“... We didn't have a clue what our CEO wanted with debis Systemhaus...“*.

These findings confirm the point made by *Finkelstein and Hambrick* (1996) that high capital intensity and the concentration of ownership on one or a few owners (*Finkelstein and Hambrick* 1996, p. 31) exerts an important restricting influence on managerial discretion, and by that, on options to learn. The top managers were neither involved in the development of corresponding acquisition strategies (compare also section 5.3.3) for which learning processes play a key role (see *Mintzberg* 1995), nor in the investment decisions themselves but had to take the consequences. Among other things, this led to the top executive manager's partial refusal—as shown e.g. in the case of the mobile business (see section 4.5.3) or Systems business (see section 4.6.3)—of accountability



for these decisions<sup>164</sup> and commitment to their implementation. This however is, according to numerous authors and researchers (compare e.g. Antonacopoulou 2002; Hoeksema et al. 1997; Rosenstiel 1995; Lloyd 1990; Sutcliffe 1988; Honey and Mumford 1982; Stewart and Stewart 1981; Humble 1973; Mumford 1971) an imperative requirement in order for top level organisational learning to occur.

Moreover, further consequences have resulted from the dramatic financial situation<sup>165</sup> of the corporation for top-level organisational learning. The top management thus ushered in a whole range of cost-cutting programmes—especially in the fixed-network business—and de-investments as a response to the rapid increase of the group's indebtedness. Even a company-wide training programme for top management that had been developed in partnership with a renowned business school was put on ice due to a lack of funds. The introduction of the 4-pillar structure presented in the cases which, as illustrated, was primarily characterised and triggered by capital market considerations, is probably to be understood against this background. As can be taken from the following statements, even more important effects on top-level organisational learning arose out of the tense financial situation at the same time:

*“We have a short-term problem on account of debt reduction. This is currently making the implementation of medium and long-term ideas difficult. I don't believe that we can survive in this way if we wish to remain competitive in the long-term.”* [a technical senior manager in the fixed network business]

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<sup>164</sup> This can for instance be derived from the fact that the overwhelming majority of DT's top management evaluated the DT's overall adaptation to the new environment and market conditions as at least satisfactorily or better. Confronted with terrible financial ratios, the suggestion from Klimecki (1997), where (financial) resources not only represent an important input and prerequisite for learning processes, but can simultaneously be seen as an outcome of organisational learning, most of them referred to decisions on acquisitions, etc. in which they were not involved. In doing so they confirmed partly Murray's (1989) suggestion, according to which a variety of factors such as the length of time assumed to be necessary for effects to appear, the performance measures used and the definition of the top management team, i.e. that group of persons allowed to make certain decisions, have an impact on financial performance indicators. In any case it suggests that their evaluation was based not solely on financial results, but rather on different conceptions or models of an organisation's goals and criteria of its effectiveness (compare Bryman 1995).

<sup>165</sup> It has to be mentioned in that connection that in the period from 2000-2002, the share price of Deutsche Telekom plummeted from its all-time high of EUR 103.50 to its all-time low of EUR 8.32 per share.

*“As far as product launches are concerned, we currently have another problem when it comes to the cost saving discussion. Many business cases are sometimes simply no longer pursued on account of the capital investments required. There is clear competition in this respect regarding the investment budget, usually at the cost of long-term projects. This is particularly difficult in view of the four-pillar strategy, and will continue to be so in the future. Take ISDN for example... if there had already been 4 pillars back then, ISDN would never have taken off... How should we approach long-term innovations in the future? I don't know. Trial and Error?”*  
[the responsible top manager for technology platforms]

These findings confirm that financial constraints exerted an influence on what *Weber and Berthoin Antal* (2001) called “orientation to time”. However, it seems that—supplementary to *Weber and Berthoin Antal* (2001) and *Bleicher* (1985)—this does not only concern the dominant orientation to time<sup>166</sup>, but also the term within which results should be achieved (i.e. short-term versus long-term). In this present case, it could be seen that more long-term oriented topics and functional areas that were important to the overall group lost significance in favour of more short-term, divisional interests (annotation: with regard to the effects on, e.g. innovation, reference is made to *Bungartz*, 2007). What *Senge* (1990) called ‘orientation on short-term results’ is reflected in the shut down or downsizing of certain central departments and discontinuation of top management positions even at the board level, and mainly in the technical field (see section 5.5) as well as an increasing competition for investment budgets.

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<sup>166</sup> i.e. if an organisation is generally more oriented to the past, present or future.

#### 5.4.4.2 Learning Implications of the 'T'-Brand

What is viewed in the resource-based view of the firm as an intangible and relational resource (compare Wernerfelt 1984) obviously had an important impact on top-level organisational learning in the case organisation: the brand—in the case organisation, the 'T'-brand. External media and a former member of the supervisory board confirmed (see Glotz 2001) that the resounding success of the implementation of the T-brand would not have been possible without some external key recruitments at top level<sup>167</sup>, and thereby the integration of new competencies at top level from externally.

If one ignores the importance of the brand for the market and concentrates solely on an appraisal of the significance of the brand for the learning of the top management, two developments could be observed in principle:

From an internal perspective the T-brand had not only an integrative effect for what *de Chernatony and Mc Donald* (1996) called 'marketing process'. Corresponding to the group's brand policy all products and services, all units and activities had mandatorily to be subsumed under the umbrella brand "T". Resulting from the strict implementation of the 'T'-brand, which coincided with the new organisation of the Telekom as joint-stock company, and in spite of their often non-voluntary implementation of the T-brand (compare e.g. the Mobile or Online business), the interviewed top management declared in the interviews that on the top-level, with the implementation of the T-brand, the identification with the group had increased. Prior to the implementation of the "T"-brand, one identified oneself more strongly with their respective business. This change became possible when the T-brand began being connected by all with a positive image as a modern and attractive company. This learning was achieved in that, following *Friedman's* suggestion, the structural element (here: the conversion of DT to a stock corporation) was

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<sup>167</sup> Above all the CEO and the responsible manager for the group's external and internal communication.

complemented by the elements of an organisations' culture that facilitate learning (Friedman et al. 2001, p. 760). This suggests that the T-brand as a cultic symbol was, above all from a cultural perspective, important for organisational learning at top management level and helped to bridge the trenches that existed before between the old and the new businesses. As Yanow states: "... it makes 'organisation' as a collective 'seeable' as an entity" (Yanow 2000, p. 250).

From an external perspective, the "T"-brand contributed to a better image of DT as an employer for those in top management, and thus facilitated the access to crucial resources in the labour market. A newly hired senior manager reported:

*"Brand creation, branding, an upbeat external image. All of these factors were important, especially in view of the private customers. The (German) Post Office was also good in this respect, but not as good as Telekom. The new image was also good both for the image of Telekom as a modern enterprise and employer. Particularly with regards to the managers and experts, it was very important to detach from the old 'civil service' image."*

Five further externally hired senior managers as well as the representative of the Top Management HR department emphasised the improvement of DT's external image as an employer by means of the T-brand. This suggests that a second important impact of the brand on top-level organisational learning consisted in further possibilities of the external recruitment of top executive managers, who, according to *Kammel (2000)* and *Yeung et al. (1999)* provided an important option towards the advancement of organisational learning at top management level. Because...

*"... newcomers bring with them a new frame of reference for problem-solving and a new impulse for modification in the established..."*, they contribute greatly to top-level organisational learning (Kammel 2000, p. 337).

In summary, the study thus demonstrates, that a "Brand" influences external recruiting for the acquisition of new competencies at the top level. Furthermore, it had a positive influence on cooperation within the case organisation and thereby confirms *Friedman's*

suggestion (Friedman et al. 2001, p. 760), in that for organisational learning to occur, the structural element must be complemented by a cultural component.

#### **5.4.5 Summary Component Organisation**

This section concentrated on the organisation with which the top management forms an inevitable learning community (Klimecki 1997). Through the analysis of the organisational context of the top management a series of drivers and barriers as well as deployed initiatives and methods for top-level organisational learning could be identified.

It could thus be found that top-level organisational learning is constrained by the complexity of the organisation and inertial forces. As could be shown, such constraints are, in elaboration of *Finkelstein and Hambrick (1996)*, not limited to large, mature organisations. In addition, the findings show that top managers not only play a passive role as regards inertial forces. Inertial forces such as size, age or cultural constraints, which determine the action and learning room for top managers, are not only a date but could rather also be influenced directly through corresponding executive actions (e.g. through a merger or spin-off) or could be caused through decisions made by top management themselves.

This is contrasted by a further finding of this study. It could be shown, in accordance with *Culley (1989)*, *Senge (1990)* and *Baldwin and Lawson (1995)*, that executives are action-oriented and lack self-reflective competence. In fast-changing environments, this bears the risk that top managers control little what they do and learn (actionism) and that particular developments lead to a specific individual dynamic. Against that background, especially in such contexts, a planned learning process is imperatively required.

A series of further factors influencing top level organisational learning could be identified at organisational level such as capital intensity, the availability and decision-making on financial resources as well as the implementation of a brand.

The analysis of the organisational context finally showed that structures for TLOL could be of great importance and have a behaviour-guiding effect. However, the findings of this study suggest that this, in correlation to existing literature, is connected to particular conditions. These are specifically: the principle change in the allocation of power and resources and changes in the decision making process; such as in the formal definition of top management.

## **5.5 Top Management**

Before having a closer look at the dynamic interrelationships between the different parts of the conceptual framework, the component 'top management' will be considered in greater detail in the following section. In that connection, it must be reiterated that in this available study, in contrast to a series of classic studies in the field, an extended section was seen as belonging to top management, not just the CEO and the group's board of management (see section 3.8.4).

The starting point for the analysis of the top management is then initially, based upon the suggestion of numerous authors and researchers (e.g. Humble 1973; Stewart and Stewart 1981; Lloyd 1990; Hoeksema et al. 1997), an examination of the preconditions for learning at top level. This is followed by a closer look at what *Hambrick* (1994) called 'elements of the top management', in order to assess the extent to which organisational learning at top level can be assumed and is reflected in observable changes of the top management's patterns of behaviour. This serves as a basis for the discussion of

selected executive actions as well as drivers of and barriers to top-level organisational learning which will be made in the final part of this section.

### **5.5.1 Preconditions for Top-Level Organisational Learning**

As shown in the literature review executive learning—even if its day-to-day dimensions are not yet well understood (see Richter 1998, p. 300)—is marked by some distinctive features. A large number of authors and researchers, (e.g. Humble 1973; Stewart and Stewart 1981; Lloyd 1990; Hoeksema et al. 1997), identified that for real and effective learning to take place, it is required that the top managers themselves recognize a strong learning need, understand the meaning of the learning challenge and make the decision to engage in the learning process. It was found in this study that many interviewed top managers liked to talk neither about concrete past or future personal learning needs nor the learning needs of DT's top management. This was independent of the purpose of holding the interview<sup>168</sup>. This confirms the point made by *Baldwin and Lawson* (1995) that managers do not necessarily want to be seen as learners. It also mirrors *Richter's* (1999) suggestion that people at the high end of the hierarchy try to avoid the impression that they are possibly not knowledgeable enough. Instead, and based upon similar findings that could be observed in other studies with senior managers (compare e.g. Richter 1999; Antonacopoulou 1999), the respondents preferred to talk about challenges resulting from the group's strategy, concrete business problems or initiatives which squared well with formulated strategic challenges of the group (see: Blank 1996).

In that connection, the large majority of them mentioned, that by far the strongest challenges of the top management would have consisted in the management of that change and teamwork at top level. Additionally—according to approximately a third of the interviewed top managers, and therefore a significantly smaller number—the “old” DT top

management for a long time lacked specialised knowledge and pertinent know-how—also in international business—with respect to market deregulation, privatisation and the IPO. If this assessment is however compared to the assessment by the same top managers of which know-how at the top level got lost in the considered period of time and which was added, it was conspicuous that knowledge on the functioning of the group (see also section 5.4.1.1) that was important to the majority of respondents for change processes in large organisations within the group (i.e. the whole group or fixed-network business) had been lost to a large extent. This know-how was primarily seen among older top managers and former civil servants from the fixed-network division and headquarters with very long tenures, who furthermore—due to their training and shared working relationships—mostly had strong informal networks and worked closely together. That these top managers held that specific knowledge about ‘how Telekom ticks’ might be attributed to some peculiarities of public service organisations. *Finger and Bürgin-Brand* (1999) found in their case study on the Swiss Postal Service that the functioning and management of public sector organisations is not qualitatively different from private sector organisations, but more complex. This can be attributed to specific environmental constraints<sup>169</sup>, a tendency towards bureaucratisation, which is reinforced by specific administrative rules and regulations, and the fact that unions—just as in DT’s case—hold a very strong position in public sector organisations and so exert an important influence on change processes. The actual loss of this know-how is supported by corresponding data from the Top Management HR department, which say that the number of top managers over the age of 45 at the group level between 1995 and 2002 fell by 22%; in 2002, 47% of the group’s top managers had a tenure below 4 years, and in DT’s headquarters, there were only 3 top managers remaining with longer tenures (annotation: all of them left in 2003).

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<sup>168</sup> It should be remembered that, in that connection, a first series of 35 interviews was carried out for professional reasons within the scope of a top management development project. A second series of 37 interviews was carried out for research purposes only (see methodology chapter, section 3.8.3).

<sup>169</sup> *Finger and Bürgin-Brand* (1999) argue that public sector organisations operate in a political and public context. Public sector organisations operate in an environment with political actors on one side and citizens and society on the other. Both sides are more than stakeholders to public sector organisations.



This would however mean that exactly the know-how that was important for achieving the strategic goals of a “fundamental reorganisation” and “strategic realignment of the group” (see: Blank 1996) had been lost at the top level—particularly at headquarters. Indeed, executive turnover is necessary in turbulent environments if, as stated by *Carley* (1996) and *Pettigrew* (1985a), the organisation may not slow the rate of adaptation<sup>170</sup>. However, this does not apply to such comprehensive replacement of experienced top managers.

Having been confronted with that interpretation of the findings, the top managers themselves explained that there had been a series of “old” top managers who were either not willing or not able to cross things off the list and to concentrate on new challenges. These managers corresponded largely to what *Antonacopoulou* (1999) called ‘mathophobic managers’. Admittedly, it was not just about learning in DT’s case, but above all about what *Hedberg* (Hedberg 1981, p.3) described as ‘unlearning’ or ‘discarding of obsolete and misleading knowledge’ and which is, following his suggestion, a basic precondition for managerial learning to take place. Personal readiness for change was above all difficult for former civil servants, according to several of the top managers interviewed (see quote of an externally-recruited top manager from the fixed-network business’s legal department in section 4.7.3). They had assumed their life-long employment under entirely different circumstances and rules, to which the company no longer wished to stick after the change from a state-owned utility to a private company. This corresponds to what *Cavanaugh and Noe* (1999) or *Morrison and Robinson* (1997) called ‘break of the psychological contract’ and is similar to the findings that can be observed in *Antonacopoulou’s* (2002), or *Storey et al.’s* (1997) study in the banking sector.

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<sup>170</sup> Old executives would often have no training on the new task so that hiring new executives trained in that task would be preferable.

It could be found in this study that risk-aversion, poor performance or large hierarchical distance were often associated with those top managers who were not ready or able to learn. For the most important identified cultural barriers see following table 31:

Cultural Constraint	Empirical Evidence from the interviews (Examples):
Lacking performance and customer orientation	<p><i>"Some people here have a '9 to 5 mentality', which is often equated with a public authority attitude."</i> (responsible manager of the OD-department, DT headquarters and former civil servant)</p> <p><i>"Cost-oriented thinking—we didn't understand that at all back then. For instance, I passed my driving test here. I was given three weeks leave to do so. And we had managers who built their houses during working hours. Thankfully, we've departed from that old world."</i> (a top manager in sales in the fixed network business and former civil servant)</p> <p><i>"I find the vocabulary that was still used here sometimes when I started in the mid-90s interesting. Customers were still sometimes called applicants or residents. The term itself is one thing. Of far greater decisiveness, however, is the underlying mindset as fulfiller of a provisioning order. The effects of such a mindset can be easily seen in the service orientation and issues of economic efficiency, for example."</i> (an externally hired senior manager in sales in the fixed network business)</p>
Lacking willingness to undertake risks	<p><i>"There are still people who nurture a 'provider mindset', meaning they see themselves as working for a company which provides for them, so that's how they conduct themselves."</i> (a top manager in HR of the fixed network business)</p> <p><i>"Accepting responsibility and not having the security net in place at all times. This was the major change for our former top civil servants."</i> (one member of the board of the fixed network business)</p>
Large hierarchical and physical distance to the workforce	<p><i>"When I came to Deutsche Telekom, I went to the people and to our branch offices. I talked to everybody to learn about their ideas and views of the situation. This was a real cultural shock. Especially for the presidents of the branch offices and regional directorates. But just about everyone in a leadership position communicated with his heads of staff or doorkeepers only. They all considered status to be incredibly important. The habit of communicating with people on lower levels was very underdeveloped here. They considered themselves to be above it. For me, this signified the absence of entrepreneurial thinking. A true entrepreneur would rather approach people at all levels, would look for new ideas and perspectives and would make it clear to each and every one of them just how important they are for the company as a whole."</i> (one of the first external hires of the top level; held different positions in the fixed network business and in DT's headquarters.)</p> <p><i>"This hierarchical mindset and the distance to authority is evident everywhere. Our members of the board are not available, they are shielded. There is simply no place, no opportunity for contact and meeting. By the way, the architect of this building would have to be arrested. Our directors are as distant as possible from each other and every member of the board sits in his own tower. This building is a certain symbol. It is strange but obviously normal here that the manager of a unit has his office here and his team is situated somewhere else. It is this distance with regard to the</i></p>

	<i>management which causes that nobody asks questions. It is not because you are afraid—it is simply because you feel the distance.</i> (a senior manager in DT's headquarters after his first months of service)
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Table 32: Cultural Constraints and Top-Level Organisational Learning

The consequences of a lack of willingness or ability to learn were particularly clear in the fixed-network business, where hardly any external hires could be made, and there were no possibilities to sanction civil servants, both for legal reasons, until privatisation. In the course of the Telekom KONTAKT project, this lack of willingness or ability to learn became particularly clear in the lack of know-how, the power struggles, in demarcation of territory and distrust towards new colleagues, in toilsome project work, and, as the results of Carley's (1996) and Pettigrew's (1985a) work indicate, long project run times (compare section 4.4.3.1). This suggests that the principle key competencies among the top managers discussed above (here: knowledge about the functioning of the group and teamwork) could actually not be made available at the top level, and the envisaged "*fundamental cultural change*" (Blank 1996) could not be achieved.

This confirms the point made by *Hedberg* (1981) that dismissals can be necessary when unlearning does not occur. It provides, also due to the distinctiveness of the research settings<sup>171</sup>, empirical evidence for *Whittington's* (1993, p. 122) and *Bleicher's* (1991, p. 762) suggestion, which emphasises that in such situations only the replacement of managers in key positions by people coming from outside the organisation permit the initiation of strategic change or the achievement of a turnaround after a crisis. This study thus showed that learning processes are indeed possible, for which reason Telekom KONTAKT was even seen as one of the two key projects with respect to TLOL. The findings of this study suggest, however, that learning processes take too long, due to

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<sup>171</sup> Annotation: until privatisation in 1995, the fixed network business and DT's headquarters were an almost closed system, i.e. there was almost no adding of external hires and no departures at the top level.

management (compare section 5.4.2) to their behavioural integration—significantly changed within the scope of substantial changes of the formal organisation (here: Telekom KONTAKT and the ‘Four-pillar-Strategy’).

Characteristics of DT Group's Top Management	1990	After Telekom "KONTAKT" (1996)	After "4-pillar-strategy" (2001)
<b>Locus/Structure</b>	Largely technical and functional heads of a single organisation	Largely functional heads of a single organisation plus selected general managers of spin-offs	General and functional managers of partly unrelated businesses/ organisations (→ partly double membership, i.e. member of the group's top management and simultaneously head of own sub-organisation)
<b>Incl. decision-making</b>	Decisions were made by the minister	Decisions were made by the management of the board. Spin-offs were managed like financial participations.	Decisions were made by the corporate board as well as divisional boards.
Corresponds to DT group's internal definition of the ... managers	TOP 60 (corresponds to 60-70 top managers)	TOP 300 (corresponds to 200-250 top managers)	TOP 100 (corresponds to ca. 120-140 top managers plus decentralised top management groups <sup>173</sup> )
<b>Tasks</b>	Generalist approach (frequent inter-unit moves in a top manager's career)	Specialised in functional areas (e.g. technology, marketing, sales)	Specialised in the market segments
<b>Cognitive diversity of the top management</b>  (as indicated by age, formal education, professional experience in other industries/companies, origin/culture)	Low  (strong influence of civil servants)	Moderate  (first external hires)	High  (due to numerous external hires and acquisitions)
<b>Behavioural Integration</b>	Very High  Due to common formal education and training and shared work experience ("Telekom Family")	High  Loose coupling of old and new created businesses. Top management still largely dominated by traditional parts of the group	Low  New businesses dominate the top management, but develop own corporate governance; limited cohesion at group level

Table 33: Development of Selected Top Management Characteristics

<sup>173</sup> Fixed network business: Top Leadership Forum/ Leadership Forum; corresponds to ca. 100 or 300 top managers respectively; Systems business: Top Executives (TEC); corresponds to ca. 70 top managers; Online business: TOP 30; corresponds to ca. 30 top managers); Mobile business: Definition still in progress at the end of this study.

learning resistance and lacking new, specialised know-how, and are therefore not effective in an environment where fast change is required.

However, the study—and here especially the case of DT’s headquarters—showed that a lacking readiness or capacity to learn was not limited to civil servants and their particular (cultural) influences. The study rather suggests that this problem can arise even and especially among experts and consultants, if these have a very different understanding of roles, in accordance with *Berthoin Antal* and *Krebsbach-Gnath’s* (2001) suggestion<sup>172</sup>.

### 5.5.2 Top Management Resources

Following the suggestion from *Hambrick* (1994), to be described accurately, the top management requires multiple constructs (e.g. structure, composition, social processes etc.), which influence each other and potentially give rise to distinct patterns or consistencies. These constructs collectively compose the resources for learning of the ‘unit’ top management and so for “... *the process of changing the range of an entity’s (potential) behaviour based on the development of its knowledge*” (Berends et al. 2003, p. 12).

It could be found in this study that certain of these characteristics associated with constructs (see table below)—starting with the definition and the locus of the top

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<sup>172</sup> As shown, in the headquarters case, shortly after privatisation an attempt was made “... to buy stars with a lot of money” but without taking care how these people would work together (statements were made by a top manager from DT headquarters with a long tenure). As could be found, many of these “stars” turned out to be lone warriors incapable of throwing off their “consultant role” and taking line responsibility. They were viewed as “... decoupled and disconnected from Telekom” and without “the faintest idea...” of what works and what does not work...and „not the men of action who translate these slides into practice“ [source: a middle-aged externally hired top manager in the fixed network business coming from the industry.] They had, as they themselves related in interview, only little contact with colleagues at headquarters and in other parts of the company. At the same time, headquarters was the only part where no attempt was made to set up a communications platform for top managers. As some of these top managers were not prepared to or capable of improving their teamwork, and to change their behaviour in terms of the development and implementation of projects, they had to leave DT after 1 or 2 years of service, as corresponding documentation and statements of the responsible former head of the top management HR department confirmed.

This mirrors again the suggestion by Kammel (2000) that managers learn through the design of structures and are even the subject of what he called “structural management”. It could furthermore be found that the aforementioned characteristics fostered or hindered top-level organisational learning in many ways. In what follows these characteristics will therefore now—starting with the locus and structure of the top management—be analysed in greater detail.

### **5.5.2.1 Locus and Structure of the Top Management**

As the table above shows, it could be found that the structure<sup>174</sup>, size<sup>175</sup> and locus<sup>176</sup> varied significantly in the considered period of time. In this respect, the changed assignment of top managers (e.g. single organisation versus headquarters plus sub-organisations) led to an increasingly decentralised structure of the top management, resulting changed top management tasks and relationships among top managers’ roles, and the steadily increasing number of top managers, due to organisational changes. This suggests that the top management could take advantage of the strong points of decentralised organisations for top management learning. According to *Grant* (1996) and *Mintzberg* (1992), these particularly come into effect in fast changing environments. Following the suggestion by *Mintzberg* (1992) and *Grant* (1996), who considers the firm as a knowledge-integration system, decentralised structures make tacit or idiosyncratic knowledge available and enable fast responses to local conditions in many different places. This can be attributed to the fact that decentralisation has implications for the internal structure of the firm, i.e. for the role of hierarchy, for the location and process of decision-making (*Grant* 1996) and strategy development (*Mintzberg* 1992) for which again learning processes play a key role.

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<sup>174</sup> Means following Hambrick (1994): the roles of members and the relationships among those roles

<sup>175</sup> Means: number of managers classified as top management.

<sup>176</sup> Means following Hambrick (1994): the place of the top managers in their organisation.

Based upon that, one could assume that the observed changes of the structure, locus and size of the top management were intended. It could furthermore be assumed that the top management learned to deal with the steadily increasing pace of change in DT's environment as well as the fact that an important part of DT's processes were apparently based upon experience.

Whereas this could be confirmed by means of corresponding documentation for the implementation of Telekom KONTAKT (Deutsche Telekom 1992; Deutsche Telekom 1995), it could be found in the interviews, that this had no applicability to the implementation of the "four-pillar strategy" and with that, the strongest form of decentralisation. The top managers themselves saw the introduction of the "four-pillar strategy" as an isolated decision of the CEO, which was triggered by the capital market and made in the absence of intention to change the internal structure of the firm<sup>177</sup>. It could furthermore be found in the interviews that the implementation of the four-pillar strategy led to great tensions between different parts of the top management, and to consequent large problems in handling converging markets, as shown in section 4.7.3. This even reached so far that the individual divisions were in competition on the external market<sup>178</sup>. According to the interviewed top managers, these conflicts, which were primarily about supply and service relations and the corresponding pricing between the divisions, clearly always flared up over the same points. As a result, vast trenches formed between two "camps" in DT's top management. On the one hand, there was the 'old world' represented by the fixed network business; on the other hand, there was the 'new world' represented by 'new' businesses and here especially the mobile and the Systems

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<sup>177</sup> For example, one top manager from Systems reported: "At the very beginning, the reasoning of the four-pillar strategy was the capital market. I remember when the four-pillar strategy was presented by our CEO. He said in the top management meeting: Who makes use of this structure for his own good... I will slay this person and then kick him out. The intention, however, was very different from real-life."

<sup>178</sup> "Networked products are our strength, but all our departmental thinking gets squarely in the way of it." [source: interview with a top manager in charge of a business line of the Systems business]

business. This evaluation of the interviewed top managers squares well with the analysis of group-internal preliminary work (see table 33 below).

	Case "Head- quarters"	Case "Fixed Network"	Case "Mobile / Online"		Case "Systems"
Proportion of internal preliminary work of total revenue	./.	15%	13.4%	46.8%	37.2 %
Thereof:					
Fixed network		./. 9.6%	9.4%	<b>44.4%</b>	<b>37.1%</b>
Systems		5.2%	3.9%	2.3%	./. 0.1%
Mobil		0.2%	./. 0.1%	0%	0.1%
Online				./. 0%	0%

(by author based upon DT internal documents)

Table 34: Proportion of Internal Preliminary Work of Total Revenues

The conflicts were clearly actually the strongest where there were the largest overlaps.

These findings confirm the suggestion made by *Hambrick* (1994) that, depending on the degree of task interdependence of group members, the structure of the top management creates a tension regarding group identities. Following his suggestion, these tensions result from the fact that "... other group members think of themselves primarily as subunit group leaders, and not as top group members" (Hambrick 1994, p.176). These overlaps and resulting role ambiguities or conflicts were respectively seen by the interviewed top managers—right after the complexity of the organisation (see section 5.4.1)—as the strongest barrier to top-level organisational learning<sup>179</sup>. As has been show, they led to TLOL being sometimes steered in undesirable directions (e.g. optimising the goals of the individual business divisions to the detriment of the group). Even in 2008, a well-known German business magazine wrote: "No Telekom boss has to date managed to get the employees to pull in the same direction and to identify with the group's goals ..." The then

<sup>179</sup> A top manager of DT's headquarters (annotation: no further details given for confidentiality reasons) came to the conclusion: "We are not capable of working together in a cross-divisional way—and I include the management bodies in my judgement."



CEO "...gave the business units more autonomy and promoted internal competition. Thus, everyone is fighting against everyone else, thinks firstly of his own benefit and does not allow others to be successful. That brakes élan exactly where it is desperately needed: in the development of innovative products or better service." (Wirtschaftswoche, 2008, p. 87).

With the advent and growth of diversified firms, this underlines the need to intensify research into the structure of top groups and its impact on organisational learning at top management level. Even more so, as according to *Hambrick* (1994) despite the great significance of the structure of top groups to any complete theory on top managers, it has gone almost totally without attention in research to date.

#### **5.5.2.2 Composition of the Top Management**

Corresponding documentation in the Top Management HR department confirmed that strong use was made of external recruiting, even if there were considerable differences between the individual business units and between headquarters and the business units, as will be shown below. Likewise, the interviewed top managers themselves as well as representatives of the top management HR department highlighted that mainly specific expert knowledge in the field of marketing, sales or finance that DT's top management did not previously have was brought in via external recruitment. External recruited top managers were additionally meant "*to bring a breath of fresh air into the place*" (quote from an interviewed top manager of the fixed network business) by asking questions and bringing in new ideas. In the face of turbulent change, external recruiting was seen by all interviewed top managers—in the case of two top managers from the fixed-network division, also with reference to training measures attempted in the early 90's (see also section 4.4.3.1)—as the only way to get hold of the necessary competencies at top-level on time. Furthermore, very many new top managers—primarily international top

managers—had been added due to mergers and acquisitions, whose integration was at most only partly successful due to a lack of integration strategy, as was shown before in section 5.3.2 and 5.3.3 (strategy).

A look at the composition of DT's top management (see below), which refers to the collective characteristics of top team members (Hambrick 1994), provides further empirical evidence for the actual, significant external additions and changes in the knowledge base at top level. The great changes in the composition of DT's top management observed in this study confirm that, following the suggestion from *Simon*, organisational learning at top level was also achieved by "*ingesting new members who have knowledge the organization didn't previously have*" (Simon 1991, p. 125). The findings likewise support the point made by *Yeung et al.* (1999), who identified in his empirical study the acquisition of new competencies through recruitment or acquisitions, etc. as a means to build up new management capabilities in turbulent environments.

The more in-depth analysis of the composition of DT's top management<sup>180</sup> and how it changed over time provides empirical insights into why external recruiting and mergers and acquisitions were applied as methods for top-level organisational learning in this study and especially on which characteristics are crucial for a top management group in an environment of turbulent change. Six large, overall trends as regards the evolution of what *Hambrick* called "*quantity of a compositional characteristic*" (Hambrick 1994, p. 177) of DT group's top management could be identified in the period under review<sup>181</sup>. These were as follows:

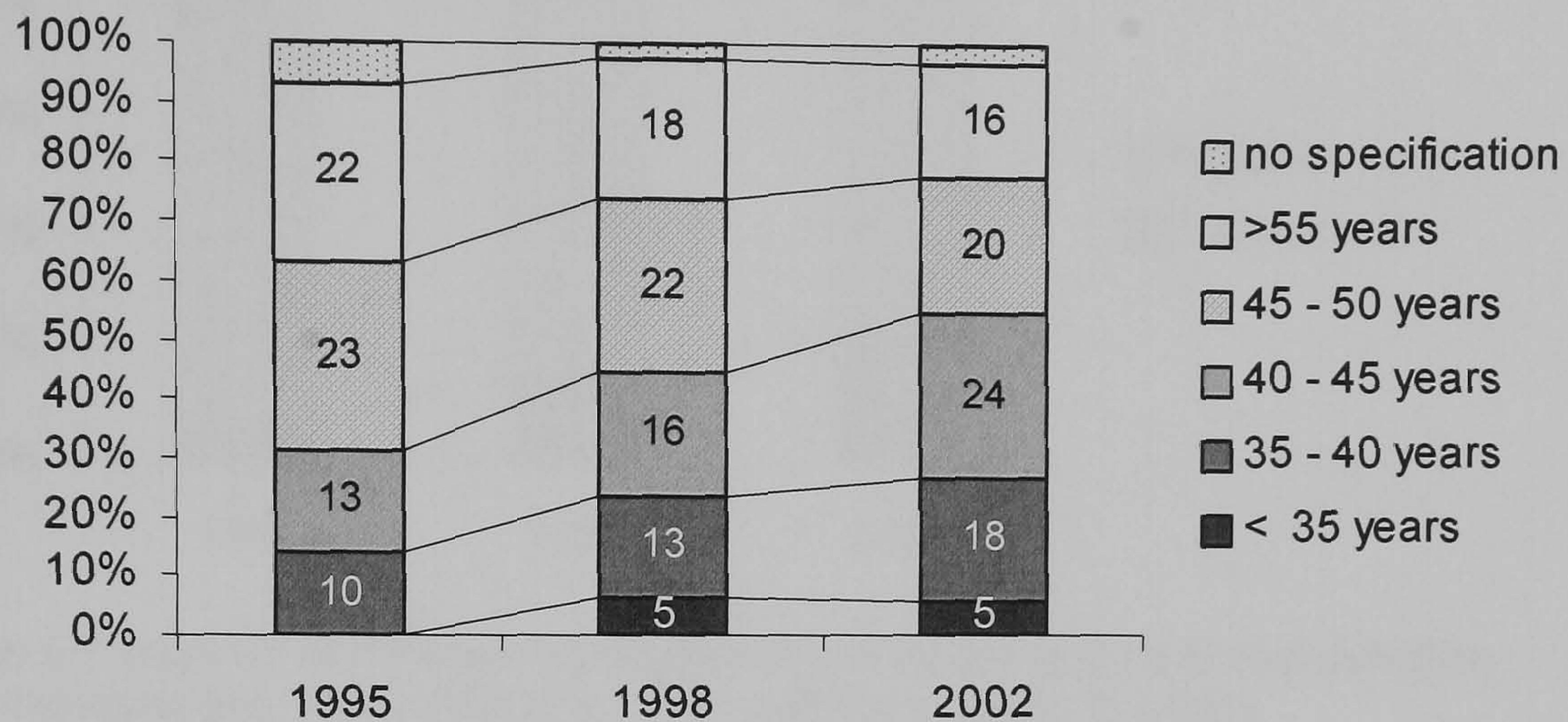
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<sup>180</sup> To reiterate, in the connection that the size of DT's top management changed in the course of time, this was caused by changes in the group structure. All following statistics are relative values.

<sup>181</sup> In this connection, there was only little data for the time between 1990 and 1995, as the administration and support of top management was only assumed by DT upon privatisation in 1995. The evaluations shown therefore primarily relate to the time between 1995 and 2002.

I. A very clear drop in the average age of top management:

The average age in 2002 was 47.3 years. In 1990, the top managers (at that time still civil servants) were at least, but often significantly more than, 50 years old. Overall, significant drop in the number of over-45s (see figure below). The youngest top managers could be found in the Online and Mobile businesses<sup>182</sup>.

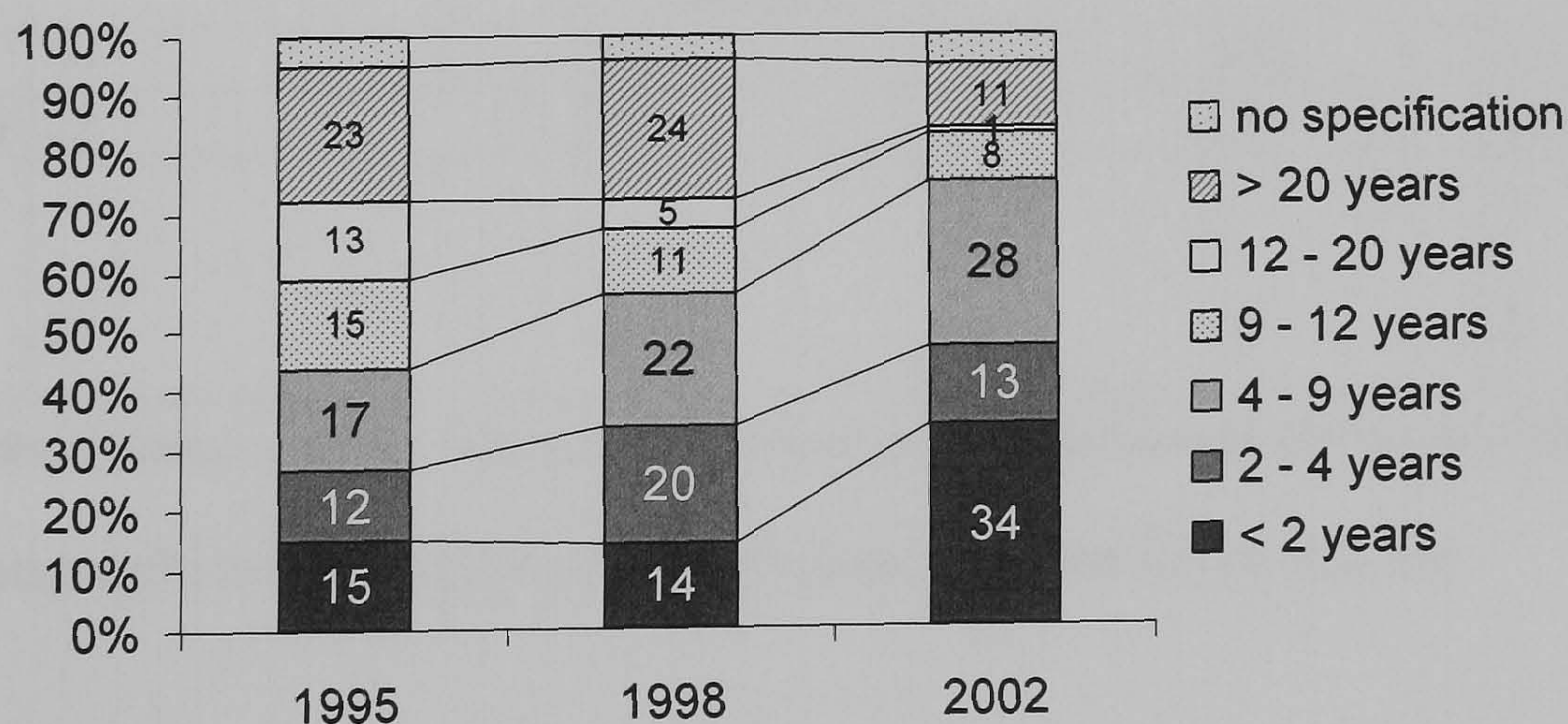


Note: based upon CV-analysis of DT's top management and following DT's formal definition of the top management: 1995: 340 CV's; 1998: 245 CV's; 2002: 121 CV's

Figure 11 : Age Structure of DT's Top Management

II. A very clear reduction in tenure in the organisation (see figure below):

In 2002, the average tenure was 7.5 years. In 1990, all top managers were civil servants "for life".



Note: based upon CV-analysis of DT's top management and following DT's formal definition of the top management: 1995: 340 CV's; 1998: 245 CV's; 2002: 121 CV's)

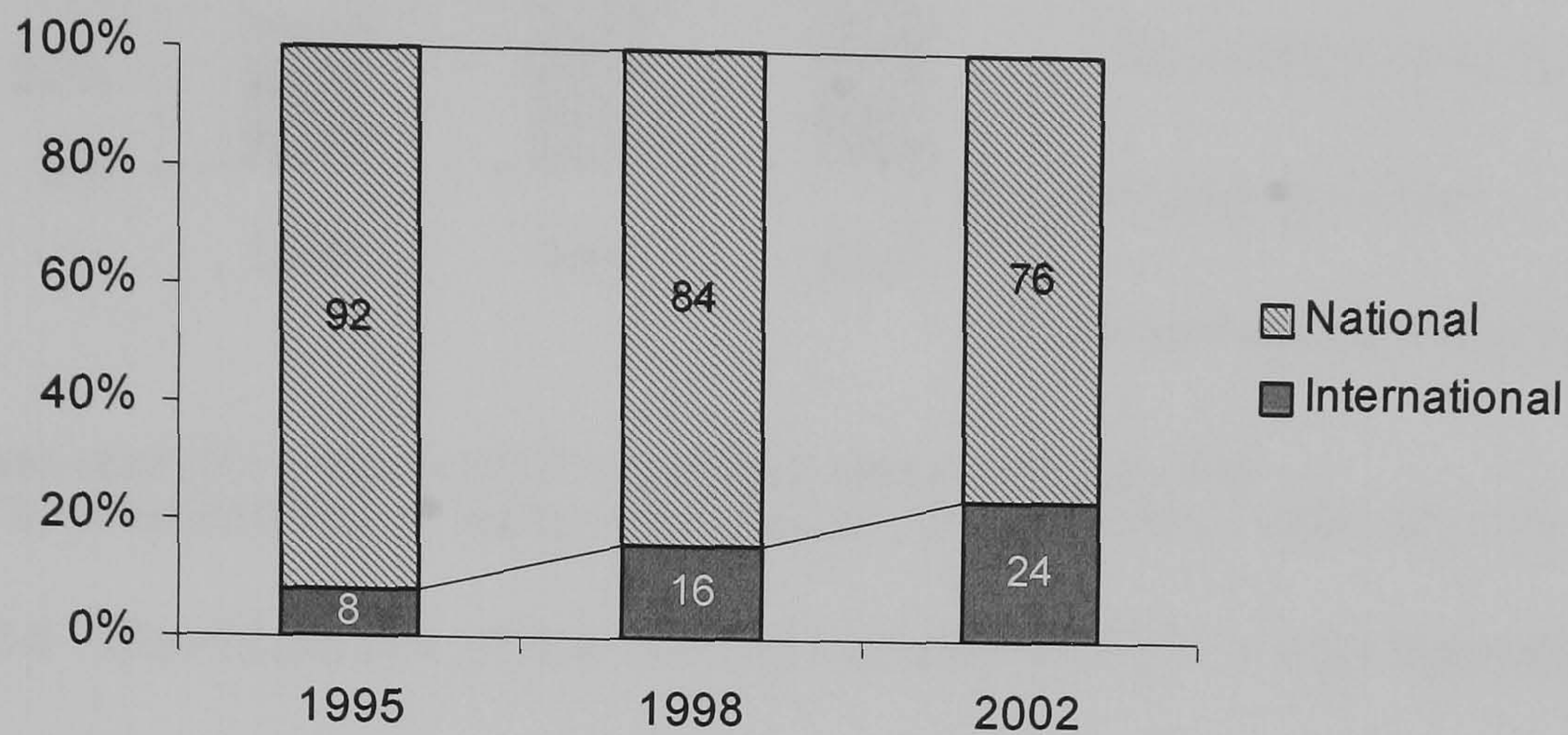
Figure 12 : Development of Tenure in the Organisation of DT's Top Management

<sup>182</sup> This squares well with DT's age structure of all employees. For example, 2000 of the on average youngest employees were to be found in Online (average employee age: 32.8), followed by Mobile (average employee age: 35).

III. A strong increase in the addition of top international managers:

In 2002, they represented 24% of the top group (see figure below).

In 1990, Telekom was still solely focussed on the domestic market.



Note: based upon CV-analysis of DT's top management and following DT's formal definition of the top management: 1995: 340 CV's; 1998: 245 CV's; 2002: 121 CV's

Figure 13 : Development of Top International Managers at DT

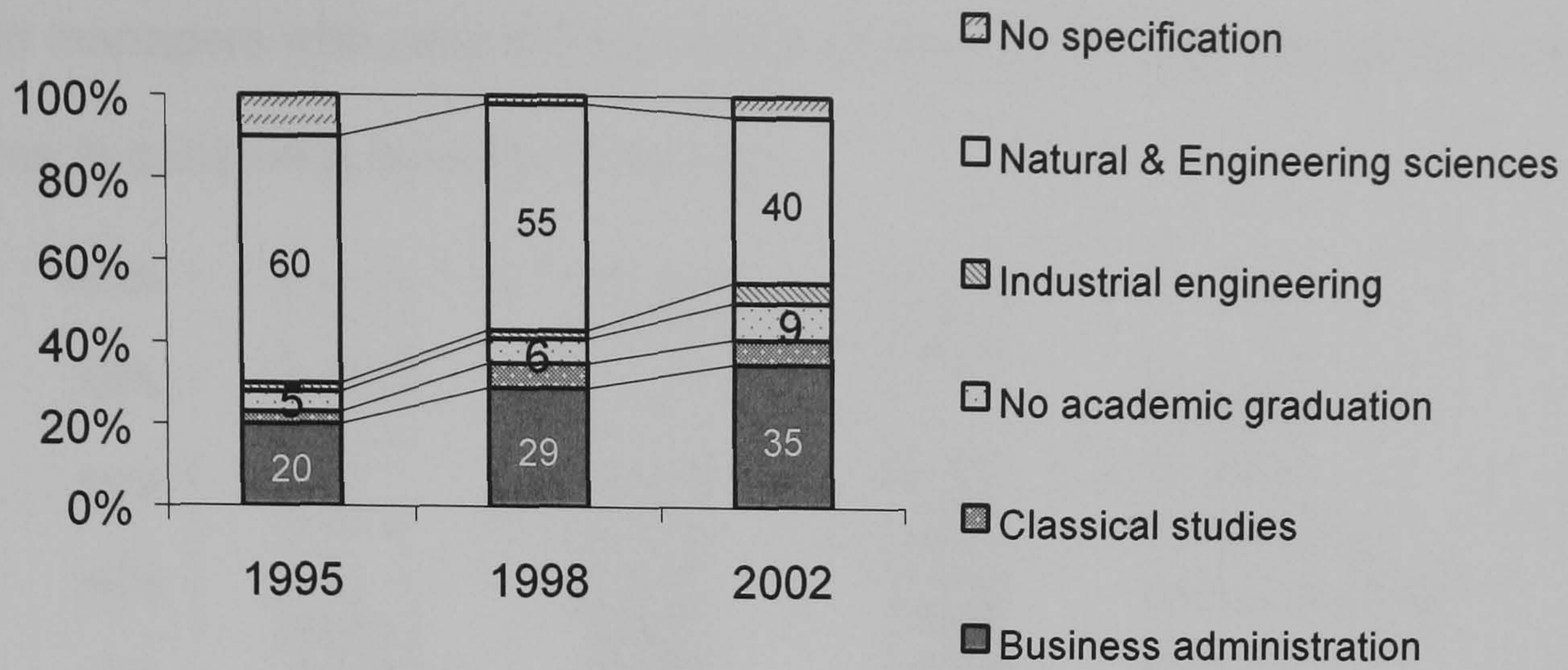
The distribution of activity of all group employees supports that development and shows clear parallels to the development at the top level.

2002	Activity distribution in %				
	Group	Fixed network	Systems	Mobile	Online
<b>National</b>	74	76	76	45	71
<b>International</b>	26	24	24	55	29
<b>Number of countries where present</b>	27	4	23	4	6

(depicted by author, based upon DT internal documentation [Konzernpersonalstrategie 2003])

Table 35: Geographical Allocation of Employees in Case Organisation

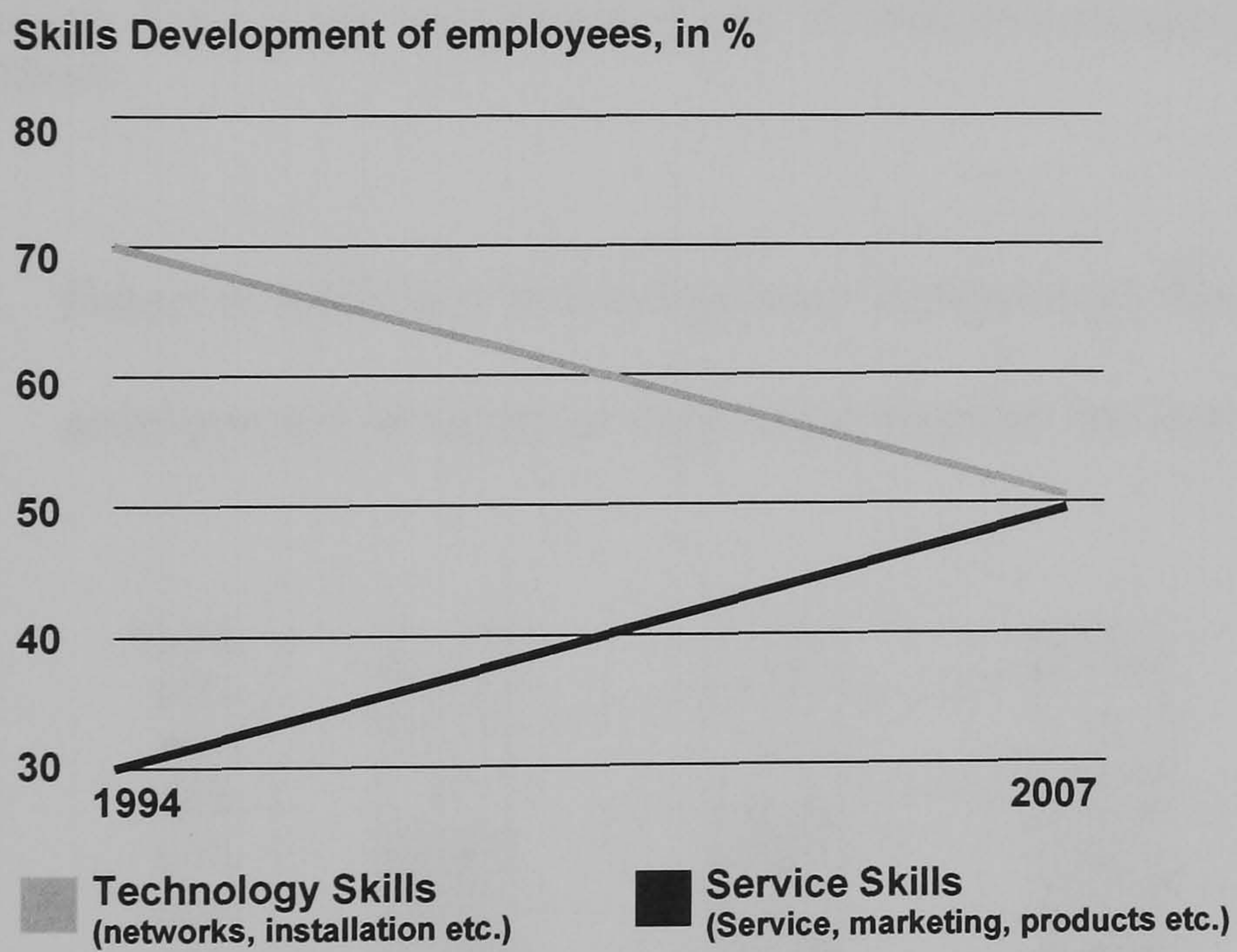
IV. A strong movement in the formal education of top managers from technical to commercial and economic studies. From the second half of the 90s, an increase in non-academics (mostly from the "new economy") became apparent - see figure:



Note: based upon CV-analysis of DT's top management and following DT's formal definition of the top management: 1995: 340 CV's; 1998: 245 CV's; 2002: 121 CV's

Figure 14 : Development of the Formal Education of DT's Top Management

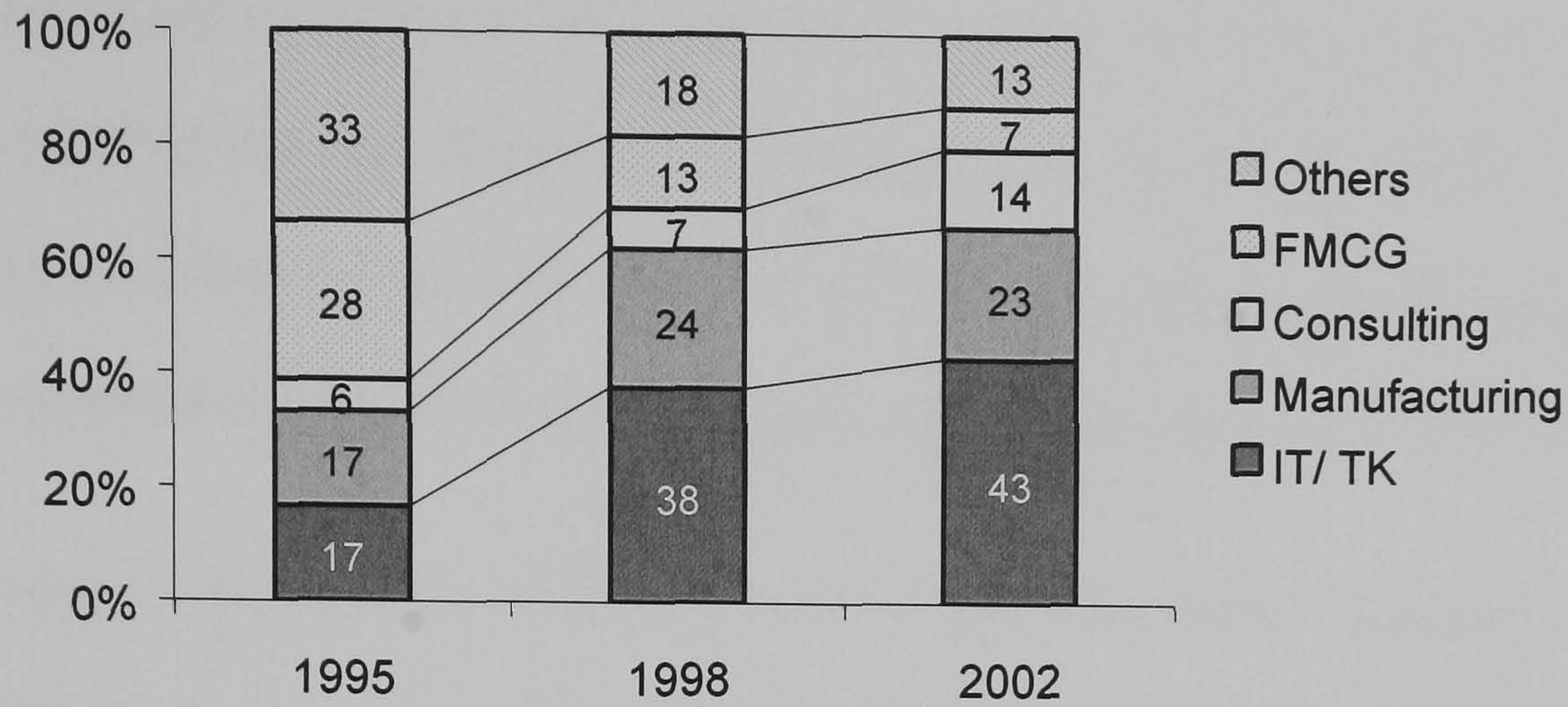
This development was also reflected at all employee levels in the group:



(Source: Deutsche Telekom, Personalbericht 2007)

Figure 15 : Skill Development in Case Organisation Over Time

V. Among the external additions to the top level, there was a clearly growing proportion of top managers with pertinent industry experience in IT and telecommunications as well as in consulting (see figure below).

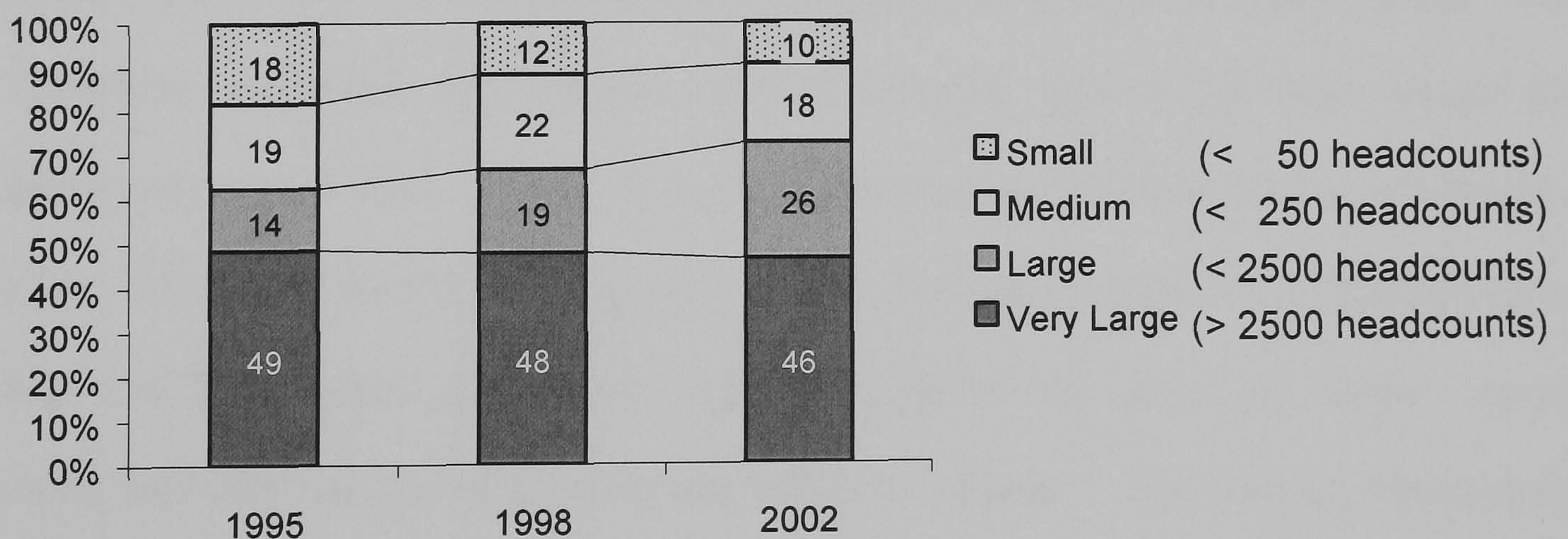


Note: based upon CV-analysis of external hires of DT's top management and following DT's formal definition of the top management: 1995: 92 CV's; 1998: 88 CV's; 2002: 104 CV's

Figure 16 : Industry Experience of External Hires of DT's Top Management

"Industry Experience": A classification as specified in the "Statistical Classification of Economic Activities in the European Community" (commonly referred to as NACE), as a European industry standard classification system, is not appropriate due to its large amount of different clusters (consisting of a 6 digit code and 996 cluster and sub-cluster in total). This analysis therefore concentrates on FMCG (Fast Moving Consumer Goods), Consulting, Manufacturing and IT/Telecommunications. All other industries are summed up in 'Others'.

VI. External additions to the top level increasingly had experience from previous employment in large or very large companies (see figure below).



Annotation:

\* Based upon CV-analysis of external hires of DT's top management and following DT's formal definition of the top management: 1995: 92 CV's; 1998: 88 CV's; 2002: 104 CV's)

\* Enterprise categories specified in Anlehnung an die European Commission

Source: [http://ec.europa.eu/enterprise/enterprise\\_policy/sme\\_definition/index\\_en.htm](http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/index_en.htm)

Figure 17 : Previous Experience of New Hires by Company Size

Following *Hambrick's* (1994, p. 182) suggestion according to which the 'top management group shaped context' and the 'context shaped the top management', the dynamic interrelationships between exogenous factors, strategy, organisation and top management are considered later (see section 5.7). The following analysis concentrates on some special aspects affecting top management. Above all, this is to learn more about why external recruiting as a method for top-level organisational learning is used and why it is so important for top management groups that are confronted with massive change.

As was found (see above), the age of DT's top executive managers—especially in the mobile and online business—decreased overall continuously in the period under review. It could be found in the interviews that the top managers themselves associated a stronger willingness to take risks with lower ages, and saw the "Mobilers" as the most willing to take a risk. Analogously, a former member of the Deutsche Telekom supervisory board attested the following of the youngest CEO that Telekom ever had, and quoted him as follows: "*... some think rather something safe without future, but with past than something with risk, but with the chance of a special future. This is what differentiates the notion of entrepreneurship.*" (Glötz 2001, p. 165). This confirms the findings of *Wiersema* and *Bantel's* (1992) empirical study, which suggests a proximate connection between certain demographic traits, such as low age and the receptivity to change, and willingness to take risk. Following *Hambrick* and *Mason* (1984), a lower age is for that reason also associated with growth and volatility of sales and earnings. And this, too, is confirmed by this study. Thus, the overall sinking age of top managers within the Telekom group generally and the lowest age of top managers within the group at Mobile squares particularly well with the corresponding key financial figures<sup>183</sup>. The intense tensions that could be observed mainly between top executive managers of the "old and new

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<sup>183</sup> DT's sales grew from 30.5 billion euros in 1995 to 53.7 billion euros in 2002. Net profit fluctuated during this time between a high of 5.9 billion euros in 2000 and a record loss of 24.6 billion euros in 2002, whereby -23.7 bn fell upon the Mobile business, which had more than tripled its losses in comparison to the previous year. (source: annual reports DT group; for further details, please refer to section 4.2.4).

generations” or between the traditional and the new parts of the group’s top management (see previous section 5.5.2.1), as well as the partly very large age spreads of up to 23 years on the corporate as well as divisional boards <sup>184</sup> suggest that sourcing of younger top managers was important, also with a view to the debate over the direction of the company as well as decision-making. This confirms the point identified by *Eisenhardt et al.* (1998), who creates a link between performance and conflict and considers age differences as particularly powerful as regards conflicts (similar: Wagner et al. 1984). Corresponding to *Eisenhardt et al.* (1998) high conflict top management teams which include large age spreads (> 20 years) outperform other teams as they “... lead to more thorough and creative discussion of decisions and avoidance of premature closure” (Eisenhardt et al. 1998, p. 8). This strongly indicates that large age spreads drive top-level organisational learning particularly in fast developing markets and environments. In the absence of internal options, as in DT’s case, this can only be achieved by getting hold of external resources through recruiting.

As far as the top management’s tenure is concerned, the study demonstrated (see figure above) a steadily decreasing tenure of the top executive managers in the organisation in the period under review. As the table above shows, top executive managers from the fixed-network business usually had the longest tenure, which might also be attributed to its legacy as a public authority.

Corresponding to *Hambrick and Mason* (1984), executive tenure is highly positively related to strategic persistence or the absence of strategic change<sup>185</sup>. The good learning

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<sup>184</sup> In 1995, DT had the youngest CEO in its history, in a 45-year-old, and also in 2000, when the four-pillar-strategy and a new corporate board of management was implemented, the age difference between the oldest and youngest members of the corporate board of management was 18 years. On the Mobile board, which achieved the highest ratings from all interviewed top managers in terms of their learning, the age difference was even greater. There was a difference of 23 years between the oldest board member, the CTO<sup>184</sup>, and the youngest member, the head of sales and later Mobile CEO.

<sup>185</sup> In addition a further positive association was found between executive tenure and performance conformity to industry averages.



performance that the interviewed fixed-network managers, like other top executives from the group, attested to, and which also had an effect on the positive key financial figures and their external image as the “backbone of the group”, strongly indicate, that this is not necessarily linked to a lack of capacity to learn<sup>186</sup>. At the same time, the former head of the group organisation and one of his direct reports, among others, stated in a joint interview on the subject that—as already shown in section 5.4.1.1—many external hires in change projects failed and “... cleared off again after a short time” (quote of an interviewed, external hired top executive manager in the fixed network business who joined DT in January 1999). This was because they had not understood “how Telekom works”, and had therefore overlooked important hurdles in change processes. Due to the lack of direct operational responsibility for the implementation of change projects, this mostly did not lead to personal consequences for the external hires at headquarters, however. Here, one increasingly withdrew into a consultant role, which was also reinforced by the CEO and his direct reports increasingly hiring consultants. It could be confirmed in fact, that 2/3 of the top managers were in consulting prior to their arrival at DT headquarters<sup>187</sup>. At the end of 1999/the start of 2000, all three key positions, the strategic development of the group and policy, group strategy and group organisation were occupied by former consultants.

The study thus confirms *Becker's* (1970) suggestion, which pointed out that top management groups with extensive tenure in a firm or industry build specific firm and industry knowledge which might be less valuable in times of high uncertainty and when innovations are required, but which is critical and useful when the firm requires efficiency, or past experiences have to be used to predict future events. As shown, quality leadership with simultaneous improvement of efficiency and economy exactly matches

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<sup>186</sup> As already shown in section 5.5.1 on the preconditions for top-level organisational learning—the majority of top managers who were not ready or able to learn were located in the fixed network business or in DT's headquarters.

<sup>187</sup> Annotation: A further focus was due to the IT business in Systems

the strategic goals of the fixed-network division (see section 5.3.1). And as shown, the headquarters was increasingly perceived as “disconnected” and bad in terms of its learning performance, which primarily became clear with the acquisition policy and the introduction of the four-pillar strategy, which had partly led to detrimental results.

The study thus demonstrates that the assessment of whether longer organisational tenures drive or hinder top-level organisational-learning depends significantly on the context and strategic intentions, and therefore on which know-how is required.

Apart from the most extensively-investigated top management group composition research emphasising demography (e.g. age, tenure etc.), which often has not produced consistent support for relationships between demographic traits on organisational outcomes (see Jackson 1992; Miller et al. 1998), there is very sparse existing research on the implications of the experiences in an international environment named in the case, formal education (but also professional experience in companies in various industries and of differing sizes) of the top management group, as well as their connection with TLOL. Although research has not produced a consistent empirical foundation, there is at least widespread agreement (see e.g. Wiersema and Bantel 1992; Glick et al. 1993; O'Reilly et al. 1993; Murray 1989), that diversity as a result of different professional backgrounds, origins etc.—similar to age—tends to directly or indirectly create disagreements when strategic issues are being considered, and thus has an impact on cohesiveness. Beyond that point, which will be considered in greater detail in the following section on the behavioural integration of the top management, the study showed that pertinent competencies that were necessary to achieve the formulated strategic goals did settle at the top level in increasing amounts. This includes, as can be taken from the figures above, alongside competencies in dealing with international markets and increasing formal education in commercial fields (especially marketing, sales and service),

increasing specialisation, which is clear from the increasing focus on the telecommunications industry and increasing recruitment of external top managers from both large and very large companies.

The overall findings provide empirical evidence for *Miles and Snow's* (1978) suggestion, according to which, strategies are self-reinforcing over time. This means that strategies call for competencies, structures and processes that support the firm's strategic alignment. Therefore, as can be taken from the corresponding statistics above, top executive managers in these development areas will come to be more present in the organisation.

In a reverse conclusion, the findings also however suggest that, at the top level, previously held know-how was lost, which corresponds to what *Hedberg* (1981) called "unlearning" or *Blackler* (Blackler et al. 1999) "organisational forgetting". In 2002, for example, the last technical director left the company's corporate board of management that had had 4 technical directors in 1990. With this, many technical topics or, e.g. mid- to long-term innovations and the resulting projects, lost their promoters and sponsors, as suggested by *Hambrick and Mason* (1984), who considered strategies and effectiveness as "... reflections of the values and cognitive bases of powerful actors in the organisation". For the effects, please refer to *Bungartz* (2007).

To sum up, the analysis of the composition of DT's top management group showed that external recruiting is an important method for top-level organisational learning in an environment of turbulent change. In fast growing, developing markets it enables enlisting at short notice those competencies at top management level that support the firm's strategic alignment. The study showed that in turbulent environments, external recruiting can help to overcome risk-aversion, and that large age differences at top level drive top-level organisational learning, particularly in fast developing markets and environments. It

could be found that extensive external recruiting is no option—or just to a limited extent—when specific firm knowledge is required, which is critical when the firm requires efficiency or has to make use of past experiences to predict future events. Furthermore, it could be found that external recruiting helps to get hold of new expert knowledge at top management level at short notice. Over time, it helps to identify the most specific knowledge and competencies that are required by strategy, and contributes to making those executives more present in the organisation.

### **5.5.2.3 Behavioural Integration of the Top Management**

Although it was shown in the previous sections that due to changes of locus, structure and composition of the top management, a new or a broader base of knowledge was allocated at top management level, it could be found in this study that the different top management groups of DT's top management apparently were only able to make use of these (new) competencies for TLOL in very different amounts and quality. The following reasons could be identified for that in this study.

As shown in the table below and could be taken from a more in-depth analysis of the dispersion (Hambrick 1994) of the different top management group characteristics (see previous section), as well as corresponding statements of the interviewed top managers (incl. representatives of the Top Management HR department, as well as the group organisation), external recruiting and mergers and acquisitions in the individual parts of DT's top management were used to differing extents. They only became possible on a group-wide scale with the privatisation in 1995, and reached their peak at the end of the 90s, which explains why cohesiveness was still strong after the completion of the Telekom KONTAKT initiative (see section 5.5.2). Beyond quality, also the diversity of the additions to the top level varied greatly. While the new additions to Mobile showed what Wagner et al. (1984) called similarity, and came almost exclusively from large and very

large companies in the IT and telecommunications industry, the new hires among headquarters' top management, with the exception of a group of consultants, had hardly anything in common. The new managers came from small to very large companies, different industries (e.g. foodstuffs, chemicals, aviation, construction, banking and insurance), sometimes even from research institutes or associations, and had the most varied qualifications. Against the background of the different starting points of DT's business divisions<sup>188</sup> and the differing numbers of additions, this meant that DT's top management groups dealt with different levels of what *Eisenhardt et al.* (1998), *Jackson* (1992), or *Miller et al.* (1998) called "heterogeneity" or (cognitive) "diversity".

At the same time, the comparison of the quantity and characteristics of new entrants (see table 35 below) shows, with the assessment of the cohesiveness and effectiveness of top-level organisational learning in the corresponding top management group by the interviewed top managers, that diversity in some cases fostered, in other cases impeded top-level-organisational learning. This might be related to the problem identified by *Miller et al.* (1998) that cognitive diversity can be very problematic when like in most organisations, it is not dealt with effectively, which is why he recommended avoiding high levels of cognitive diversity in executive groups.

As the table below illustrates, it was apparently dealt with more effectively with diversity in those top management groups that continually grew, in contrast to Systems<sup>189</sup>, and where there were greater similarities, e.g. with regard to age, tenure or previous experience, between the existing top management group and the new additions, as was not the case at headquarters. High levels of diversity, however, clearly led to lacking cohesion and personnel turnover.

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<sup>188</sup> Annotation: Whereas the top management groups of the fixed network business and headquarters had to deal with the legacy of DT's past as a public authority, 100% subsidiaries were created for the mobile, online and Systems business which were built up from the scratch.

<sup>189</sup> Annotation: There was a very large spurt in growth here due to the merger with a company of about the same size.

Top Management DT Group				
	Fixed network business	Mobile/ Online business	Systems business	Headquarters
<b>Quantity of new entrants due to...</b>				
<b>External recruitment<sup>A</sup></b>	Low—Moderate	High	High—Very high	Very high
<b>Mergers</b>	Not relevant	Not relevant	Very high (merger with equally-sized company)	Not relevant
<b>Acquisitions</b>	Medium	Medium—High	Medium	None
<b>Characteristics of new entrants<sup>B</sup></b>				
<b>Age</b> (compared to existing top mgt. group)	Medium age (somewhat younger)	young (about the same age)	Medium age, (about the same age)	Young (significantly younger)
<b>Share of international top managers</b>	Low	High, but from selected countries	High, from most diverse countries	Low
<b>Formal education</b>	Mainly marketing/service (in contrast to technology of existing top mgt. group)	Strong focus on marketing, sales, service as existing top mgt. group	Mainly marketing/service	Most diverse formal education
<b>New entrants gained previous job experience in ...</b>				
<b>the following branch:</b>	Diverse industries	Mainly in IT and telecommunications	Mainly in IT and telecommunications	Most diverse industries
<b>in a company of the following size::</b>	Mainly large	Mainly large and very large	Mainly large and very large	Most diverse size of companies
<b>Cohesiveness of the corresponding top management group...</b>				
<b>... was evaluated by interviewed top managers<sup>B</sup></b>	Good  High identification with the "Telekom Family" <sup>C</sup> ("We are Telekom" <sup>C</sup> )	Mobile: Very good Online: Good  High identification with "We are different to Telekom" <sup>C</sup>	Very poor  Lacking common identification	Very poor  Lacking common identification
<b>Effectiveness of top-level organisational learning</b>				
<b>... was evaluated by interviewed top managers</b>	Good	Mobile: Very good Online: Satisfactory	Very poor	Very poor

(depicted by author based upon corresponding DT internal documentation)

<sup>A</sup> according to the evaluation of representatives of the top management human resources department

<sup>B</sup> compared to existing top management group

Table 36: Diversity and Cohesiveness of DT's Top Management

This is supported by the interviewed manager responsible for the Top Management HR department, who explained that there had been similarly high fluctuations in new additions to the top level precisely at headquarters at the end of the 90s, and in Systems after the merger. The main reason at headquarters was usually lacking performance on the part of the relevant top manager, which mirrors the suggestion from *Jackson* (1992) that the performance of top management groups depends on the right balance between cohesion that is based upon confidence and a 'common language' on the one hand, and conflicts arising from diversity and resulting multiple possible courses of action on the other hand.

In contrast to that—the responsible manager of top management HR department continues—the affected top managers in the culturally difficult environment at Systems had "... lacked acceptance by their own people." The latter confirms the point made by *Forbes and Wertheim* (1995) that mental maps, values and opinions of the managers on the lower hierarchical levels can turn out to be as incompatible with the ideas and proceeding of the newcomer at the very top and cause important resistance and barriers to change (Forbes and Wertheim 1995). Similar findings could be observed in *Miller et al.*'s study on the relationship between cognitive diversity among upper-echelon executives and strategic decision processes (Miller et al. 1998). He found that high levels of cognitive diversity cause problems with respect to communication, integration and political behaviour and appear to overwhelm any positive decisional effects of high diversity in top management groups. In extreme cases, this can lead to the inability to reach decisions and master strategic change (Miller et al. 1998). This was without doubt the case in the Systems business following the merger (see sections 4.6 and 5.3.2), as the constantly changing, complex matrix organisation shows..

It could furthermore be found in this study that, starting with the liberalisation of certain markets and the company's privatisation, the CEOs played an increasingly important role

with regard to the behavioural integration of the top management groups<sup>190</sup>. Thus, the top management group of the Mobile business was not only overall more homogeneous<sup>191</sup>. As the top Mobile managers, and also the head of group communication and HR development, reported, there were regular team-building events and meetings during which strategic topics were worked on, on the initiative of the Mobile CEO. This apparently led, in the case of Mobile, to what a top manager from the fixed-network business's financial department called "a committed crew". Following Richter's (1999) suggestion, this is an important condition for top-level organisational learning to occur, as top managers have a strong preference for working and learning with people with whom they have trustful relationships, and which are based upon shared past working experience. There was similar behaviour at Online. And there were also—even if only twice a year—so-called Leadership and Top-Leadership Forums in the fixed-network business. In contrast, only in 2002 was a similar communications platform created at Systems.

In contrast to the business divisions, headquarters was the only area of the company that had no meetings of the top management group, which can partly be traced back to the CEO's choice of candidates for the top positions, which placed greatest emphasis on individual performance and not on teamwork<sup>192</sup>.

So strong was Dr Sommer's image as "Mister Telekom" externally and in public (see Glotz 2001), that his effect was seen that much more critically from within by top managers and even individual members of the supervisory board (see table below).

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<sup>190</sup> Annotation: Due to the training and promotion system in the civil service, this problem had never before been seen in the same dimensions.

<sup>191</sup> According to the results of a CV-analysis, more than 2/3 of the top managers in Mobile came from the telecommunications industry, as well as 3/4 of top managers from large and very large companies. A large majority of the mostly between 35 and 40-year-old managers had studied commercial or economic subjects.

<sup>192</sup> In the interviews, CEO Sommer was accused of a preference for working with consultants and candidates who were starkly different to the old state-institution image, far beyond the measure propagated by Richter (1999) and Berthoin Antal and Krebsbach-Gnath (2001).



<b>Assessment of the role of the CEO for the behavioural integration of DT's top management (Examples):</b>	
<b>Composition of the top management group</b>	<p><i>"The CEO selected those top executives who showed individual high performance. Everything else—such as keeping good, respectful company with colleagues, ... etc.—was viewed as needless stuff."</i> (A top manager of the fixed network business)</p> <p><i>"The notion of quality and service came into the company ... Communication was extremely important which also had an important impact on the top management. The appearance had to be better than that that was behind it. These were the times where numerous young managers and above all consultants were recruited who produced all these nice consultant concepts with the Deutsche Telekom Logo on it."</i> (A top manager of the fixed network business)</p>
<b>Lacking culture of debate</b>	<p><i>"There are not a lot of leaders who can accept criticism. We do not have a company culture of debate, i.e. of expressing one's personal opinion. Nor is it common practice at our company to act consistently."</i> (A top manager in the Mobile business)</p> <p><i>"The dialogue culture [between the CEO and his top management team] we had before became stunted in the era of Sommer."</i> (A top manager at DT's headquarters)</p>
<b>Lack of trust</b>	<p><i>"There are scarcely open discussions between these different groups of top managers. There is no trust. Something is missing here. There is always the question or doubt, whether what you say will have repercussions. So in general what is said is not more than empty words."</i> (A top manager from the Systems business)</p> <p><i>"There is only a marginal amount of discourse—even during fire-side talks. There is no trust. Something is amiss. There is the question of whether what one says ends up being spread beyond those intended to hear. On the other hand, we tend to restrict conversations to meaningless talk."</i> (A top manager from the Mobile business)</p> <p><i>"Here, the newspapers are the only source of information. Everything is written earlier in the newspapers even than decided in the management board. These kind of things do not confirm an appropriate management culture."</i> (A top manager from DT's headquarters)</p>
<b>Impact of the Personality of the CEO</b>	<p><i>"He was not the kind of guy you'd have a beer with."</i> (A member of the supervisory board, (Glutz 2001), p. 37 ff. or Business Week, Oct. 1995)</p> <p><i>"Our CEO had an aura about him that made it difficult to get close. I have worked for long years with him, but I never knew what he took me for... if he liked me or not. He was so devious."</i> (A top manager of DT's headquarters)</p>
<b>Internal competition</b>	<p><i>"No team spirit, own interests and laying blame. That is our management culture, to which our company leadership has contributed greatly. It does nothing to change this. The competitive situation has deepened the rifts even more."</i> (A top manager of the online business)</p>

Table 37: The Role of the CEO for Behavioural Integration

Even in the press, one could read this on the subject:

“‘There is no corporate culture’, said a member of the Top 50 management group, who has worked at other large companies. ‘Everyone does their thing, likes to trip up colleagues in other divisions, and thereby sabotages the overall group goals.’” (Wirtschaftswoche, 2.6.2008, No. 23, p. 86).

And further:

“‘Telekom has neither an emergent or lived corporate culture, nor a string, culture-influencing management culture.’ In principle, this shows that at core, Telekom is still the old telephone utility that it came from. ‘Team spirit, as it bonds together worker and manager over years in a growing undertaking, that has worn off at Telekom—and that is taking its revenge.’” (Wirtschaftswoche, 2.6.2008, No. 23, p. 87).

This squares well with the assessment given in interviews of the main cultural characteristics of DT group’s top management group and its sub-groups (see table below). It likewise squares well with the poor assessment of the cohesion of the headquarters as well as the poor evaluation of the quality of cooperation of DT group’s top management, which was rated by 50% of all interviewed top managers as worse than satisfactory. This also led to an inability to replace the different component cultures of the top management groups of the individual businesses with a common management and leadership culture, and the cooperation of group-level top managers remained influenced by cultural conflicts between the “old” and the “new”. This was particularly pronounced where there was close intermeshing due to internal supply and service relationships. (see also section 5.4.1.2 on cultural constraints).

Top Management DT Group				
	Fixed network business	Mobile/ Online business	Systems business	Headquarters
<b>Main cultural characteristics of the resulting top management group</b>				
Metaphor <sup>c</sup>	„The dinosaurs“	„The young savages“	“The disorderly crew”	„The Consultants“
Main cultural characteristics described by interviewed top managers of other parts of DT group ....	Large hierarchical distance; risk averse; able but bad external image	Start-up culture, Informal associations with one another, Take a risk, have an appreciation for new ventures, entrepreneurial	Micropolitics and power struggles, Cultural melting pot of very different company cultures	Lone warrior-syndrome, high hierarchical distance; decoupled from the rest of the group, Strong external image
<b>Cohesiveness of the corresponding top management group...</b>				
... was evaluated by interviewed top managers	Good  High identification with the “Telekom Family” <sup>c</sup> (“We are Telekom” <sup>c</sup> )	Mobile: Very good Online: Good  High identification with “we are different to Telekom” <sup>c</sup>	Very poor  Lack of common identification	Very poor  Lack of common identification
<b>Main cultural characteristics of DT group’s top management group</b>				
As described by interviewed top managers and external press ....	No common management culture and identity, Strong internal competition, cooperation influenced by distrust.			
<b>Cohesiveness of DT group’s top management group</b>				
... was evaluated by interviewed top managers	Rather poor			

<sup>c</sup>: quote of interviewed top managers

Table 38: Cultural Characteristics and Cohesion of DT’s Top Management

The findings of this study illustrate the CEO's crucial role for dealing effectively with diversity. The study provides empirical evidence that it is not enough for top-level organisational learning to take place to allocate corresponding knowledge at top management level. The study rather confirms *Hambrick* (1994) and *Finkelstein and Hambrick* (1996), who attributed a major role as regards the composition and functioning of the top management group to the CEO. They show that the CEO can foster top-level organisational learning by avoiding high levels of diversity and through the continuous motivation and encouragement of the top management group. By authorising top managers, as suggested by *Antonacopoulou* (2002), to throw institutionalised norms, practices and policies within the organisation into question, the CEO can have a disproportionate impact on top-level organisational learning.

### **5.5.3 Summary Component Top Management**

In this section the top management itself was analysed in greater detail.

First of all, the preconditions for top-level organisational learning were considered. It could be found that the break of the psychological contract between the former public authority Deutsche Telekom and the civil servants limited the top management's readiness for learning and so represented an important barrier to top-level organisational learning. Before DT's privatisation, unlearning (Hedberg 1981)—which is a basic precondition for new learning—was furthermore slowed down or inhibited due to the absence of any options to make civil servants redundant or otherwise sanction them.

In a second step, a particular emphasis was put on the analysis of the top management's resources consisting of the locus, structure, composition and the behavioural integration of the top management. It was shown that the locus and structure of the top management varied significantly in the course of time. It could be found that, following *Hambrick's* suggestion (1994), a changed organisation of the firm and corresponding allocation of top

managers in the organisation creates role ambiguities and tensions regarding group identities, which can impede top-level organisational learning. This becomes evident, e.g. in conflicts that arise from group internal supply and service relationships, and suggests that the importance of the locus and structure of the top management for top-level organisational learning has to be particularly taken into consideration in diversified firms with a decentralised organisation.

Based upon the analysis of the composition of the top management, external recruiting and acquisitions could be identified as methods for top-level organisational learning in fast-changing environments. In extension of *Hambrick and Mason's* (1984) and *Eisenhardt et al's* (1998) research, it was shown that the large age spreads that can be achieved e.g. through external recruiting, drive top-level organisational learning, particularly in fast-changing and developing environments. As far as organisational tenure is concerned, the study demonstrated, however, that whether longer organisational tenures drive or hinder top-level organisational learning depends on the organisation, the strategic intent and whether idiosyncratic knowledge about the firm and its functioning is required. Apart from that the study showed, in accordance with *Miles and Snow* (1978), that over time strategies are self-reinforcing and led to the allocation of competencies at top level that support the company's strategic alignment. Overall, it could be seen that diversity as regards formal education, industry knowledge and professional experience increased at top level. It could thereby be seen that too high levels of diversity—either due to the quantity or quality of new entrants or a mix of both—hindered top-level organisational learning and so should be avoided at top management level. Finally, the study highlighted the CEO's crucial role for dealing effectively with diversity. *Hambrick* (1994) and *Finkelstein and Hambrick* (1996) indeed already attributed a major role to the CEO as regards the composition and functioning of the top management group. In extension of this aspect, this study however emphasises the significance of continuous encouragements for top-level organisational learning (similar: *Antonacopoulou 2002*) by

the CEO. Only through corresponding learning platforms and a matching management culture that allows the top management to build “trustful relationships” (compare Richter 1999), can the status quo be questioned, openness to the new and cooperation with other top managers be achieved, and with that the basis for top-level organisational learning be laid.

### 5.6 Summary of Key Findings

Now that the cases have been analysed in greater detail, the key findings and their sources of empirical evidence are summarised in the following table. Whether the following findings confirm, contradict or open new aspects of existing literature and research will be discussed more closely in chapter six:

Key-Finding*	Research Method /Source of Data			
	Interview	Documen- tation	Observa- tion	Others**
<b>Exogeneous Factors:</b>				
• Market forces trigger TLOL and determine the top management’s latitude of learning and their effect on organisational outcomes.	X	X	X	
• In corporate functions (i.e. headquarters), capital market forces take the place of forces that originate in customer markets in other divisions.	X	X	X	
• Legal constraints especially public sector employment regulations hinder TLOL.	X	X	X	
<b>Strategy:</b>				
• The frequency of the use of certain initiatives/methods for TLOL says little about their importance for TLOL.	X		X	▪ Secondary interview data + Audit reports
• “Controlled experimentation” and “competency acquisition” as main methods for TLOL in turbulent environments identified: ➤ In large, mature organisations (i.e. group or large divisions of case organisation): emphasis on unlearning and “controlled experimentation” ➤ in new/young organisations: a stronger emphasis on “competency-acquisition”	X	X	X	
• Harmonised Corporate /divisional strategies in diversified firms as a basic precondition for effective TLOL.	X	X	X	• Secondary interview data + Audit reports
<b>Organisation:</b>				
• Inertial forces as a barrier to TLOL not only in large, mature organizations—cultural constraints can affect	X	X	X	▪ Secondary interview data + Audit reports

TLOL in smaller, young organisations.				
• Action-orientation of top managers, internal competition and increasing external recruiting at top level, leads to high frequency of organisational change and hinders TLOL .	X		X	▪ Secondary interview data + Audit reports
• High capital intensity and the concentration of ownership limits the top managements latitude of action and learning.	X		X	
• Financial constraints foster 'orientation to short-term results' and leads to a loss of knowledge related to long-term oriented topics.	X	X	X	
• A means to reduce inertial forces: ➤ In fast growing, new markets in turbulent environments (where no idiosyncratic knowledge is required): creation of new subsidiaries. ➤ In large, mature organisations: a mix of top managers with in-depth knowledge about the organisation ('insiders') and holders of specific new knowledge ('external hires').	X	X	X	
• Changes in the formal organisation that matter for TLOL have to go along with a change of : - principle allocation of power and resources - decision-making processes - formal definition of the top management	X	X	X	
• A strong Brand fostered TLOL through the strengthening of the identification with the group.	X		X	
<b>Top Management:</b>				
• In fast changing environments, replacement of top managers is required to overcome slow or lacking unlearning.	X		X	
• Structure of the top management can lead, particularly in diversified firms, to role ambiguities and conflicts which influence TLOL.	X	X	X	▪ Secondary interview data + Audit reports
• Large age spreads in the top management group drive TLOL in fast developing environments.	X	X	X	
• Organisational tenures have no uniform effect on TLOL.	X	X	X	
• Over time, those competencies were allocated at top level that support the company's strategic alignment.		X	X	
• Too high levels of diversity hindered TLOL.	X	X	X	
• CEO plays a major role as regards the encouragement for TLOL.	X		X	

Table 39: Key Findings and their Sources of Empirical Evidence

\* arranged around the components of the conceptual framework

\*\* secondary data (see methodology chapter, section 3.8.5.1)

The table shows that, as described in the methodology chapter (see section 3.7.5), systematic use was made of triangulation of methods and data. Before moving on to chapter six, where the theoretical, methodological and practical contributions and implications as well as the limitations of this study are considered in greater detail, the next section summarises the interrelationships between the constituent parts of the conceptual framework.

## **5.7 Dynamic Interrelationships**

The analysis of the findings of this study has shown the parts each of these four core components played for top-level organisational learning. These findings confirm *Hambrick's* suggestion, according to which the “... characteristics of a top group—its composition, processes and so on—do not occur by happenstance” (Hambrick 1994, p. 181) but are rather “...the result of contextual forces, some direct and others indirect and subtle...” (Hambrick 1994, p. 181). It has been illustrated that these four components of the conceptual framework could be separated from each other for analytical reasons, but in fact are highly interconnected. The derived interactions are presented in graphic form below:



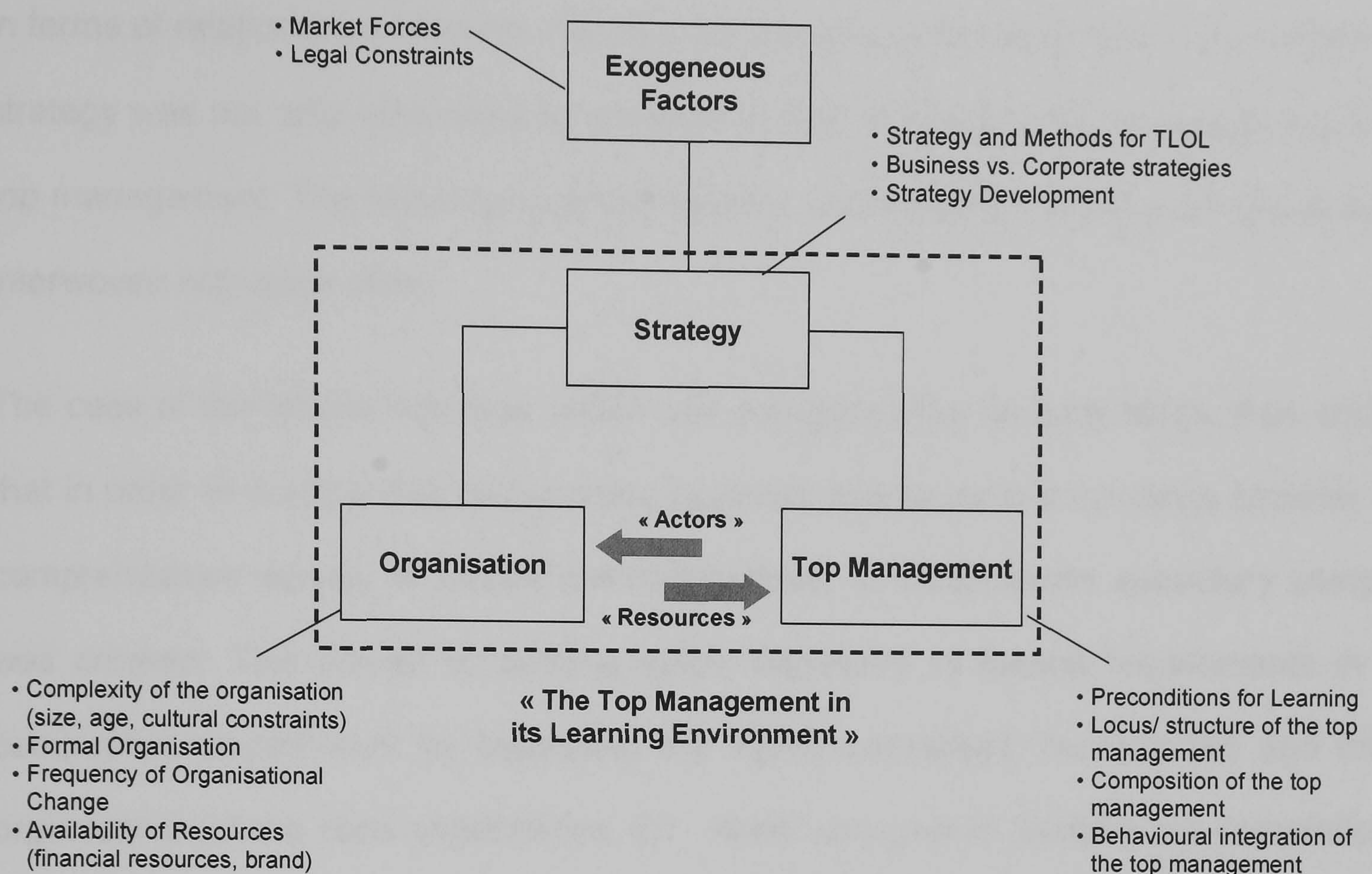


Figure 18 : Conceptual Framework: “The Top Management in its Learning Environment”

The four constituent parts of the conceptual framework thus influence each other by interacting and establishing a dynamic interrelationship, i.e. changes in one component have an effect on the other components. The previous discussions already contributed to the understanding how these components are interwoven with each other and what it meant for top-level organisational learning.

The analysis has shown that exogenous factors, which, however, did not manifest themselves in the same quality and strength at the same time in all cases, greatly affected top-level organisational learning. Therefore, the necessity to adjust the strategy of “how to run the business” derives directly from the exogenous factors. Strategy defined the strategic choices made by the top management to adapt the organisation and the top

management accordingly, thus co-determining the initiatives and methods of top-level organisational learning.

In terms of relationships between the four components of the framework, it is evident that strategy was not only influenced by exogenous factors but also the organisation and the top management. The following example helps to understand how these components are interwoven with each other.

The case of the Mobile business, which was deregulated at an early stage, thus showed that in order to develop that fast-growing business and become a full-range provider with comprehensive service in mobile communications, a 100%-owned subsidiary company was created. This served to achieve quick responses to market requirements in this competitive environment by bypassing the highly-centralised, bureaucratic and formal organisation of the case organisation, DT, which was geared towards the completion of "sovereign tasks" rather than customer service, and which was constrained by public sector employment regulations. The mobile case thus demonstrated that greater flexibility and better access to knowledge that the top management did not previously have could be achieved, but that this was required to foster top-level organisational learning and to develop the new business.

The example likewise illustrates the mutually-reinforcing and interdependent relationship between the components 'organisation' and 'top management'. As 'actors' and by making use of their knowledge and management capabilities, the top management designs and shapes an organization. As 'resources' the organisation marks the framework for top-level organisational learning by shaping top managerial roles and by defining the capacity, willingness, opportunities or necessities to learn.

In the following chapter, a detailed account of the theoretical, methodological and managerial contributions of this study will be given. Furthermore, limitations of this study will be indicated as well as some possible directions for further research.

# Chapter Six – Conclusions and Implications

## 6.1 Introduction

The debates in this study are based upon critical examination of the current literature and research in the areas of organisational learning-, and related areas of organisational research such as top management learning and strategic management and - leadership. What ties all of these together is the idea of the need for top-level organisational learning as a response to strategic change.

Little empirical work in these fields has concentrated on top management as the target group and few have tried, so far, to bridge the gap between individual learning of top managers and top-level organisational learning (see Richter 1998). As a result and due to the partly isolated or fragmented streams of literature, there is a more generic description of elitarian approaches in the organisational learning literature. This longitudinal study, which covers younger as well as more established divisions and businesses of a large telecommunications group, provides in-depth insights into the practice of TLOL. It has also explored the methods and outcomes of top-level organisational learning and extends the theory and understanding of organisational learning of that influential group of people at the apex of the organisation. To fill this gap, comparative cases in different organisational settings and business contexts, at corporate and at divisional level, in a fast-changing environment were used to empirically investigate the deployed initiatives and methods as well as the drivers and barriers of top-level organisational learning. These led to a number of findings, culminating in the conclusion that the interplay between exogeneous factors, strategy, the characteristics of the organisation and the top management group, determines the deployed methods for top-level organisational learning. Similar factors explain whether this learning is reflected ultimately in organisational outcomes.

The study likewise contributes to the current discussion of the constructs of 'dynamic capabilities' (Teece et al. 1997) and related discussions on 'absorptive capacity' (Cohen and Levinthal 1989, 1990, 1994)<sup>193</sup>. Although these contributions were not the original intention of the thesis, this is in part due to the different understandings in the literature of precisely what dynamic capabilities are (see Easterby-Smith et al. 2009).

This study has explored the two constructs in an organisation that underwent a shift from public- to private-sector status and extends the understanding of how TLOL links to "*the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments*" (Teece et al. 1997, p. 516) which is a prerequisite for organisations to compete in such fast-moving contexts. The study also adds specific insights to the role and impact of the top management cadre on what Cohen and Levinthal (1989, p. 569) call a firm's 'learning' or 'absorptive capacity'.

This additional contribution might on the one hand be attributed to the detailed descriptions of methods and outcomes of TLOL, which provide a co-evolutionary view linking the top management to the corresponding organisation in change and which highlight the recursive relationship between organisational learning and absorptive capacity identified by Lane et al. (2002, 2006). Recursive in this connection means that learning and absorptive capacity co-evolve with each influencing the other (see e.g. Rosenkopf and Nerkar 2001, Vermeulen and Barkema 2001). On the other hand, this might result from the significant role that is attached in the relevant literature to managers (Zahra et al. 2006, Easterby-Smith et al. 2009, Ambrosini et al. 2009) and learning for the creation and development of dynamic capabilities (e.g. Eisenhardt and Martin 2000, Zollo and Winter 2002).

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<sup>193</sup> E.g. Zahra and George (2002) propose that absorptive capacity should be defined as a dynamic capability.

In this chapter, the overall research findings are discussed by integrating them into a coherent theory. First, the theoretical contributions and implications will be outlined. Then, various managerial and practical implications are taken into account, followed by a discussion on the methodological contributions and implications. Finally, the limitations of the research, with suggested future research directions, are outlined.

## **6.2 Theoretical Contributions and Implications**

In seeking to explore one of the currently underdeveloped areas of organisational learning, this section summarises the theoretical contributions and implications of this study. So, building on a critical analysis of the chosen phenomena, the research questions of this study, which were derived from the literature, will be answered in summary form.

By placing emphasis primarily on the identified methods and factors that foster or hinder top-level organisational learning instead of purely on the outcomes, insights generated by this study enhance the understanding of top-level organisational learning and how it differs at corporate and divisional level by providing a more comprehensive picture of the chosen area.

To this end, and derived from the notion of the 'duality of structures' (compare Berends et al. 2003; Kammel 2000) two different perspectives will be captured to examine top-level organisational learning:

Firstly, in the following section, the perspective that considers the top management and its organisational environment rather as "resources" that mark the framework for top-level organisational learning by defining the capacity, willingness, opportunities or necessities to learn. These "resources" are simultaneously the input and output of the top-level learning process and of the developments triggered by them on the top management

level as well as that of the entire organisation. This resource-perspective allows to identify the potential range of methods for TLOL.

Secondly (see section 6.2.2), a perspective that gives greater emphasis to individual agency and which considers the top management as composed of “actors” who hold managerial roles, undertake actions and interact.

As already indicated in the introduction to this chapter, the constructs of dynamic capabilities and absorptive capacity are integral components of this dual approach. By giving greater emphasis to individual agency—especially the influence exercised by top managers—in understanding the way organisations adapt to their environment, the study contributes to the discussion on dynamic capabilities (Eisenhardt and Martin 2000, Zollo and Winter 2002) and absorptive capacity and the work that develops from that (e.g. the work of *Adner and Helfat* (2003) on dynamic managerial capabilities<sup>194</sup>, *Zahra et al.* (2006) on entrepreneurship and dynamic capabilities and *Zahra and George* (2002) on absorptive capacity).

By the employment of such a dual perspective, this thesis not only enhances the overall understanding of the concept of top-level organisational learning but also contributes to the understanding of the interrelationships between the top management and the organisation which form, corresponding to *Klimeckí's* suggestion (1997), an inseparable ‘learning community’. This dual approach, however, serves analytic reasons only and finds its limitation in that individual agency and resources and the corresponding learning processes are very tightly, sometimes inseparably, interwoven.

A closer consideration of potential differences between corporate and divisional top management groups in this respect is—as far as is necessary—an integrative component of this view.

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<sup>194</sup> Dynamic managerial capabilities are, following *Adner and Helfat* (2003, p. 1012), the capabilities with which managers build, integrate, and reconfigure organisational resources and competences.

Both of the named perspectives will be combined in section 6.2.3 into a new integrated approach to TLOL. In extension of existing theory, this makes possible a new, holistic view of methods and outcomes of TLOL which ties together the deployed methods for TLOL in the case organisation, the explanation for their use from a literature-perspective, the rationale for their use in the case organisation and indicators of 'impact'/ outcomes.

### **6.2.1 A Resources-Perspective on TLOL**

In what now follows, the theoretical contributions and implications of this study are considered and summed-up in a first step from a resources-perspective. As already elaborated earlier, this is based upon *Berend's et al. (2003)* and *Kammel's (2000)* suggestion to replace the dichotomy between individual learning and organisational learning and the consideration of individuals and organisations as separated subjects of learning, by simply two different ways of considering this social phenomenon.

According to *Berends et al. (2003)*, the resources perspective views top-level organisational learning and the deployment of corresponding methods as fostered or constrained by what *Berends* called 'structural elements' (*Berends et al. 2003*) in the top management's context. Although *Berends* does not specify what is meant by 'structural elements', he suggests that the top management groups have the power to decide which elements in their environment to take seriously<sup>195</sup> and when to 'act otherwise' (similar: *Giddens 1984* or *Antonacopoulou 2002*).

Existing literature and research have identified various methods and styles of TLOL (see section 2.6 of the literature review) that ascribe great importance to structures, the strategy development process and the knowledge present at the top level. These factors

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<sup>195</sup> Annotation: This is similar to what *Finkelstein & Hambrick (1996)* called 'filtering process'.

(i.e. structures, strategy development process and top-level knowledge) can be regarded as what *Berends et al.* (2003) calls “structural elements”. They thereby show clear parallels to corresponding discussions in the dynamic capabilities literature—for instance regarding the significance of routines (cf. e.g. Teece et al. 1997, Zollo and Winter 2002, Winter 2003) as well as what *Van den Bosch et al.* (1999) identified as the organisational determinants of absorptive capacity<sup>196</sup>. Many other factors that influence organisational learning in one or the other way have been identified in the literature (see section 2.7). However, these are often isolated, i.e. observed independently of the relevant context and/or do not apply to the particular target group of top management. Based upon evidence from the cases, this study was able to extend existing literature and research by identifying and exploring the following ‘structural elements’, i.e. contextual and organisational factors that influenced the range and use of the deployed methods for TLOL as well as their outcomes.

#### **6.2.1.1 Factors in the Top Management’s External Learning Context**

It was found that market forces and the liberalisation of the corresponding markets generated a pressing need for—and so triggered—top-level organisational learning. This is indeed similar to what *Antonacopoulou* (1999) and *Richter* (1999) identified as triggers for management or executive learning and corresponds to the suggestion of authors in the organisational learning literature<sup>197</sup> who consider organisational learning as a way to adapt to environmental demands. The evidence from the cases suggests, however, that the different effects of market forces on TLOL cannot be understood without further differentiation and firm establishment of the market forces. It was thus found that market forces differ, due to regulatory forces (i.e. early versus late deregulation), differing market

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<sup>196</sup> Following *Van den Bosch et al.* (1999) absorptive capacity is determined by the level of prior related knowledge, organisation forms and combinative capabilities.

<sup>197</sup> e.g. Cyert and March 1963; Lawrence and Lorsch 1967; Argyris and Schoen 1978; Duncan and Weiss 1979; Shrivastava 1983; Fiol and Lyles 1985; Levitt and March 1988.



growth dynamics (i.e. growing versus mature markets) or market division (e.g. fixed network business as a former monopolist), which results in different pressures to change and also, following *Finkelstein and Hambrick's* (1996) suggestion, new possibilities for the relevant top management group<sup>198</sup>. While the identified market-related criteria of the top management's task environment clearly overlap with *Finkelstein and Hambrick's* concept of managerial discretion (1996), wherein the aforementioned forces affect the top management's latitude of action and therefore how much effect top managers have on organisational outcomes, there are also some important gaps. This study therefore not only extends *Finkelstein and Hambrick's* (1996) concept by expanding his application to top-level organisational learning but also further elaborates the exogenous factors that matter for TLOL. Findings generated by this study suggest to further differentiate market forces with regard to their intensity and content direction. It could thus be found that the differing independence from the external market affected top management groups. For instance, in the case organisation, this led to organisational learning of top management groups or parts of the top management that had high internal sales or a support function (e.g. purchasing, HR etc.) being less effective<sup>199</sup> than in other areas that were highly dependent on competitive markets or had functions that were close to the customer, e.g. marketing or sales.

The discussion of the content direction of the market forces (i.e. whether the focus is on the capital markets or customer markets) showed that these aspects – as in the dynamic capability discussion (see Adner and Helfat 2003) - have often been neglected or underestimated in previous studies on organisational learning or TLOL. Whereas in the diversified case organisation, the top management groups at divisional level put a stronger emphasis on the relevant customer market, the capital market and shareholders were more in the foreground for top management at corporate level. This exerted an

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<sup>198</sup> Annotation: It could, for example, be thus shown that since the deregulation of the market, the top management of the mobile business has had a greater level of freedom and, in contrast to other parts of top management, was managed only according to financial goals.

<sup>199</sup> e.g. due to the later appearance and lower frequency of different methods for TLOL.

important influence on TLOL because it can, as was able to be shown in this study, lead to conflicting corporate and business strategies<sup>200</sup>. Because, according to *Mintzberg's suggestion* (1995), learning processes play a key role for strategy development it could be found in this case study (e.g. the numerous merger and acquisition projects, the implementation of the four-pillar-strategy) that the deployed methods for TLOL did not lead to—to say it with *March* (1990, p. 40)—a better fit with the environment and only desired outcomes of learning but 'inexorably somewhere'. Or as *Ambrosini et al.* (2009, p. S20) state, the renewal of the resource base was "*not in line with the environment*".

The study has further demonstrated that in (former) public sector organisations, legal constraints such as the applicability of public law or public sector employment regulations can require a framework that, especially in a phase of turbulent change, narrows potential options as regards initiatives and methods for top-level organisational learning. Large parts of the case organisation were thus segregated from the external labour market until privatisation. The findings of this study thus again mirror and further clarify the work of *Finkelstein and Hambrick* (1996) who identified that powerful outside forces contribute to low managerial discretion and thus limit the possible courses of action. The findings suggest that the presence of such legal constraints, as shown by the example of the case of the top management of the fixed network business, slows down or impedes unlearning (e.g. due to lacking possibilities to sanction or to dismiss) which represents, corresponding to *Hedberg's* suggestion, "*...as important a part of understanding as is adding new knowledge*" (Hedberg 1981, p. 3). It could be demonstrated that such legal constraints furthermore hinder new top-level organisational learning due to the lacking influx of new competencies through external recruiting or acquisitions. This forced learning in a closed system thus led to the continuance of what *Finger and Bürgin-Brand* (1999) called "*more complex functioning and management*" or *LaPalombara* (2001)

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<sup>200</sup> For a definition of business strategy and corporate strategy it is referred to *Andrews* (1998).

“normative idea” in the public sector and which goes along with the persistence of conservatism, reaction and risk-aversion. The findings of this study suggest that TLOL on the basis of existing resources alone in rapidly-changing environments is therefore not effective. It has rather to be complemented by new knowledge at top management level (e.g. by means of external recruiting or acquisitions) in order to overcome slow learning and to foster the top management’s awareness of multiple possible courses of action.

Despite the initial absence of the idea to make a contribution in this area, the findings of this study create a link and contribute to the dynamic capabilities debate and when taking a process-perspective like *Zahra and George* (2002, p. 186)—also to the absorptive capacity discussion. It shows in further elaboration of *Zollo and Winter* (2002, p. 350) that environmental factors not only serve as stimuli, but can also be directly reflected in the constitution of what they call dynamic capabilities. This might become even clearer when adopting *Zahra et al.’s* (2006) definition of dynamic capabilities as “*the abilities to reconfigure a firm’s resources and routines in a manner envisioned and deemed appropriate by its principal decision-maker(s)*” (Zahra et al. 2006, p. 918).

*Zahra et al.’s* (2006) definition puts the top management’s perception of change opportunities, their ability to implement these changes and their willingness to undertake these changes at the centre of observation. This in turn suggests a direct connection between TLOL, *Finkelstein and Hambrick’s* (1996) concept of managerial discretion and the creation and development of dynamic capabilities: the greater the degree of freedom and room for manoeuvre resulting from market forces (including regulatory forces, market growth dynamics and market division) and other outside forces (e.g. public versus private labour regulations), the greater the “room to learn” is at the top level, and the broader the spectrum of abilities envisioned and deemed appropriate by the top management to create and develop dynamic capabilities.

Furthermore, the findings of this research highlight the necessity of a clear differentiation between capital market and customer market forces for the observation and evaluation (incl. the criteria on which it is based) of TLOL, managerial discretion<sup>201</sup> and dynamic capabilities and so clearly serve as a contribution to the very sparse literature and research in that specific area (see Adner and Helfat 2003, p. 1013). This also derives from the different alignments towards customer or capital markets and the division of labour among the top management of multi-business groups in business managers and corporate managers who hold specific resource governance functions (e.g. allocation of resources at group level and between businesses). The study has shown that the division of labour among the top management in the diversified, complex case organisation not only led to a differentiated latitude of action of individual top managers. It rather has been shown that in the diversified, complex case organisation TLOL was largely determined by the co-ordination of the interplay of these individual top managers and their actions. This was important as all top managers oversaw large organisations but were not able – up to the very top - to capture the complexity of the whole organisation. They were more likely focused on their own what *Finkelstein and Hambrick* (1996, p. 41) called “*limited field of vision*” (e.g. capital versus customer orientation).

#### **6.2.1.2 Factors in the Top Management’s Organisational Learning Context**

As can be derived from the discussion in the literature on the resource-based view (Wernerfelt 1984; Barney 1991, Barney et al. 2001) and as addressed in the methodology chapter, resources in general are difficult to research as they can be unique, idiosyncratic, or even intangible. But also tangible resources such as financial resources are scarcely addressed in the literature and research in connection with executive or top-level organisational learning. However, the evidence from the cases (e.g. limitation of

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<sup>201</sup> Due to their main focus on CEO’s no corresponding differentiation is made in *Finkelstein and Hambrick’s* (1996) model.

decisions on M&A to the CEO or increasing short-termism as a response to financial problems) suggest that the availability of financial resources exerted an important influence on the selection and effects of the deployed methods for TLOL. This supports the work of *Yeung et al.* (1999) who identified a link between short-term cost and risk and the use of organisational learning styles at management level<sup>202</sup>. However, this study has extended *Yeung et al.*'s work by further elaborating the consequences of capital-intense businesses and of high investments, which lead to financial constraints.

This study thus unveiled that capital intensity has a particular effect on decision-making processes. The high capital intensity of the business led to strategically important investment decisions, such as the purchase of new licences or acquisitions, became solely "a matter for the boss", in which the divisional top management was not at all or only slightly involved, although they had to carry out the decisions. The findings of this study thus again overlap with *Finkelstein and Hambrick's* (1996) model on managerial discretion, according to which high capital intensity and the concentration of ownership on one or a few owners (Finkelstein and Hambrick 1996, p. 31) limits the top management's latitude of action.

This study extends their work by further elaborating the interplay between managerial discretion and TLOL. The findings generated by this study suggest that decision structures resulting from the high capital intensity led, among other things<sup>203</sup>, to the corresponding divisional top management group's partial refusal of accountability for these decisions. According to the suggestion of numerous authors and researchers<sup>204</sup>, this is an imperative requirement in order for top level organisational learning to occur

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<sup>202</sup> *Yeung et al.* (1999) thus identified that the organisational learning style 'experimentation' was the least popular learning style among the sample companies although it had the strongest effect on long-term performance. He identified that experimentation also implied significant short-term costs and risk and so can temporarily even detract from competitiveness. (*Yeung et al.* 1999, p. 65).

<sup>203</sup> compare e.g. the cases of the top management of the mobile or systems business.

which explains why mergers or acquisitions in the case organisation often ended up in poorly managed integration projects.

Apart from its effects on the deployment of mergers and acquisitions as a method for TLOL, the study was able to identify further consequences of the high capital intensity and financial constraints for TLOL. Indeed, the poor firm performance did not immediately<sup>205</sup>, as suggested by *Wagner et al. (1984)*, cause the replacement of executives associated with that poor performance. But the study was able to demonstrate that the poor financial results and the substantial indebtedness of the case company put the top management obviously in a state of stress and made the top management pursue activities or initiatives that promised short-term results. When again applying a dynamic capabilities perspective as it is defined by *Zahra et al. (2006)*, the findings illustrate that financial constraints can substantially limit the abilities to reconfigure a firm's resources and routines deemed appropriate by the top management. As could be shown, short-term orientation (cost-cutting) and the neglect of long-term oriented topics (e.g. innovation) were, e.g. reflected in numerous restructurings, generally strong reductions in personnel, as well as the closing or scaling down of certain central departments. This brought about the reduction of corresponding top management positions, which led to what *March (1991)* called 'competition among managers for internal resources and hierarchical promotion', and to little scope for experimentation (*Antonacopoulou 2002*) and which contributed to a deterioration in cooperation at the top level. The findings generated from this study thus reflect that high indebtedness exerts a restricting influence on top-level organisational learning as it leads to what *Weber and Berthoin Antal (2001)* called 'orientation to time' or *Senge (1990)* 'orientation on short-term results'. As a complement to the current literature and research, this study unveiled through the example of case

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<sup>204</sup> compare e.g. *Antonacopoulou 2002*; *Hoeksema et al. 1997*; *Rosenstiel 1995*; *Lloyd 1990*; *Sutcliffe 1988*; *Honey and Mumford 1982*; *Stewart and Stewart 1981*; *Humble 1973*; *Mumford 1971*.

<sup>205</sup> In 2002 the CEO became more and more under the gun in the wake of increasing financial debt incurred by the company as he invested billions in new technology (especially UMTS) and made an acquisition for over thirty billion Euros. With the stock having lost almost 90 % of its value during the past two years, the stockholders and some board members were attacking the CEO. Finally the CEO had to step down.

organisation that short-term orientation is reflected long-term in a loss of knowledge at the top level with relation to long-term-oriented topics (annotation: in the case organisation knowledge on technology).

A further contribution of this study is the creation of a link between the brand as a relational resource of the firm (Wernerfelt 1984) and TLOL. This study was able to show that the 'T-brand' influenced identification with the group at top level in a positive way. The evidence from the cases does not merely confirm *Friedman et al's* (2001, p. 760) suggestion, which states that for organisational learning to occur, the structural element must be complemented by a cultural component. It was found that the attractive 'T'-brand had not only a positive effect on the firm's reputation and the external labour market, but internally fostered the readiness in all parts of DT's top management for shared working experiences and common learning at top level—also through fostering of readiness to assume another top function in another part of the group.

Another vital contribution of this study is to elaborate the significance of the relationship between the top management and its organisational context for TLOL. The review of the literature showed that this was indeed often emphasised, but had often been neglected in previous studies (see Hedberg 1981; Klimecki 1997; Kammel 2000). In comparison with the current literature and research, which is often limited to the observation of the interrelationships of top management and organisational performance or effectiveness (see also methodology chapter, section 3.7.4.2), it is clear that a stronger emphasis has also to be placed on other organisational factors that influence selection and effects of methods for TLOL.

The evidence from the cases particularly highlights the need to take into account the interplay between the top management and inertial forces resulting from the size, age and culture of the organisation. Findings generated by this study suggest—and here mainly regarding the fixed network business and DT group—that organisational approaches to

TLOL in the large, mature organisations of the case company required more time and effort.

The described phenomenon confirms the point made by *Hannan and Freeman (1984)* who identified the sluggishness of the organisation resulting from cumbersome routines, a high number of hierarchical levels, high specialisation and division of labour as causes for the pervasive effects of organisational size on co-ordination processes. The findings also clearly overlap with *Finkelstein and Hambrick's* concept of managerial discretion (1996), as a result of which large, mature organisations are not easily changed due to 'inertial forces' resulting from size, age and entrenched company cultures which suggests that the top management in the large, mature case organisation not only operates, but also learns under severe constraints. This study enhances the understanding of the impact of inertial forces on TLOL by demonstrating that one difficulty for TLOL in the large organisations (here e.g. fixed network business and DT group) can consist in the large differences in time and space between a learning activity or executive action respectively and the corresponding returns. In contrast to *Adner and Helfat (2003)* it could be found that this is not only an issue for corporate managers but also for other managers who oversee complex organisations. In the case of this study the creation of a link between cause and effect required, at least against the background of the duration of change projects, long years of experience and knowledge about "how the organisation ticks". On top of that it could be found that top management groups of these very large organisations had to oversee a large organisation with a large body of partly what *Grant (1996)* called idiosyncratic and tacit knowledge, whose coordination requires involved coordination processes due to the division of labour. As could be shown in this study, both aspects led to externally hired top managers who did not make use of holders of that company-specific, implicit knowledge in change processes having a high risk of failing.



However, this study conflicts with *Finkelstein and Hambrick's* (1996) work by demonstrating that inertial forces with cultural causes are not limited to large, mature organisations, but can also occur in smaller, young organisations as a result of an attempt to extend existing competencies (see the case of the systems business). Owing to a merger in this business area, it was shown that top-level organisational learning was impeded by cultural conflicts and the resulting power struggles between influential top managers of both parties. The latter led to a complex, permanently changing organisation where roles and responsibilities of top managers were permanently changed, where key people left, where the creation of experience was not possible and where change gained a certain momentum on its own. As a result, top managers busied themselves with securing their own survival in the organisation and the organisation increasingly with itself.

These findings highlight the meaning of organisational power and politics which have according to *Lawrence et al.* (2005) largely been ignored by organisational learning theorists especially regarding the organisational learning of the most powerful people at the top of the organisation. Following *Easterby-Smith et al.* (2008b), the study shows that TLOL does not occur and knowledge is not absorbed at top level without effort and the deliberate will of the individual top managers to do so. Resulting inertial forces can possibly be reinforced. Following *Eisenhardt and Martin's* (2000) suggestion, dynamic capabilities—such as learning (*Ambrosini et al.* 2009)—in high-velocity markets take on a different character and are characterised by “*simple, experiential, unstable processes that rely on quickly created new knowledge and iterative execution to produce adaptive, but unpredictable outcomes*” (*Eisenhardt and Martin* 2000, p. 1106).

By identifying and exploring the factors outside the top management that influenced TLOL, this study has been able to enhance the overall understanding of which and why

organisational and contextual factors fostered or hindered organisational learning of that influential group of people. Clearly, a resources-perspective on TLOL alone remains incomplete and is unable to capture the nature of TLOL. It is therefore complemented by an actors' perspective which now follows in the next section.

### **6.2.2 An Actors-Perspective on TLOL**

The second perspective derived from the suggestion from *Berends* (Berends et al. 2003) and *Kammel* (2000) is, that the top management as agents or actors of learning learns through the design of structures. Or to put it in a different way: the design of structural elements<sup>206</sup> and the existing resources (compare section 6.2.2 on the resources-perspective on TLOL) make the corresponding actions and interactions that lead to learning possible. From a process-perspective, learning plays an important role in the creation and development of dynamic capabilities and is also considered as a dynamic capability itself (Ambrosini et al. 2009, S11). Individual agency, and here especially the role of the top management, is viewed to be key for the development of dynamic capabilities (*Easterby-Smith et al. (2009)* or *Narayanan et al. (2009)*).

The evidence from the cases shows that two types of 'structures' were of particular relevance for TLOL from an actor's perspective: the design of the 'structural elements', especially the formal structuring of the organisation, as well as the structure, locus and composition of the company's top management group.

On the one hand, the findings of this study mirror the work of *Richter* (1999) which empirically explored individual and organisational learning at the executive-level with a particular focus on communities-of-practice and which questions the role of any other

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<sup>206</sup> However, as mentioned earlier, *Berends et al. (2003)* and *Kammel (2000)*, do not specify more precisely what is meant by "structures".

than the most formal or legitimised forms of communities-of-practice such as committees or task forces<sup>207</sup> for top-level organisational learning<sup>208</sup>.

On the other hand, the findings generated by this study reflect the suggestions from a series of scholars in organisational learning literature who attribute an important role to structures and the structuring of the organisation for organisational learning (e.g. Dodgson 1993; DiBella et al. 1996; Friedman et al. 2001) but who remain saliently short in empirical evidence. The kinds of structural features which were found in this study to be the most important were changes of the principle allocation of power and resources, the decision-making processes and the formal definition and structure of the top management.

The evidence from the cases also agrees with *Yeung et al.* (1999), who identified what he called 'experimentation' and 'competency acquisition' as the main and most effective styles of organisational learning at management level in rapid-changing environments. These learning styles particularly emphasise the role of top management as agents of learning, as they provide great organisational freedom to the top management in comparison to other learning styles such as benchmarking or continuous improvement. The findings of this study suggest that *Yeung et al.*'s (1999) model of learning styles, which was based upon a study with mainly middle management, can essentially also be adopted for the top management. However, as will be shown in the following sections, this study has extended *Yeung et al.*'s (1999) work by further elaborating the interrelationships between the top management, the deployed methods for TLOL and the top management's learning environment.

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<sup>207</sup> Wenger (1998) and Brown and Duguid (1991) consider communities-of-practice as informal and in terms of day-to-day working life as largely interstitial.

<sup>208</sup> Instead the crucial role of trust and shared history which is gained through shared common working experience is emphasised.

The findings generated by this study show that reference to a turbulent environment alone<sup>209</sup> is not enough to understand the top management's differentiated approach to learning. Different parts of the case organisation's top management made different choices. By exploring the deployed methods and outcomes of TLOL, this study was able to demonstrate that even in one single, albeit very large organisation, very different methods can lead to very different results, which highlights the need to take specific managerial as well as organisational characteristics into account. It could thus be identified that the deployed methods for TLOL and resulting outcomes at group level or in the mature part of the organisation differed substantially from those used in the young, fast-growing part of the organisation. Whereas at group level or in the large, mature part of the organisation an emphasis was put on what *Yeung et al.* (1999) called 'experimentation', the top management of the young, fast-growing part of the organisation placed a stronger emphasis on the learning style 'competency acquisition'. This was evidenced by the analysis of the importance and effects of the different approaches to TLOL on corporate and divisional level (see tables 26 and 27).

This study was able to identify a possible answer from a top management perspective to the question raised by *Ambrosini et al.* (2009) of whether regenerative dynamic capabilities<sup>210</sup> that allow the firm to move towards new dynamic capabilities can be sourced from outside the firm, when there is no time for organisational learning to take place to develop and deploy them. The evidence from this study suggests that this is possible to a large extent in young, fast-growing organisations, whereas in large, mature organisations where dynamic capabilities have been developed and embedded in the organisation over time through learning processes and repetition, managers may find it

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<sup>209</sup> *Yeung et al.* (1999) differentiated the following five contextual characteristics: speed of environmental change (Bourgeois 1988), competitive strategy, slack resources (Dutton and Freedman 1985), current success of organisation, ambiguity of technology.

<sup>210</sup> It is reminded in this connection that from a process-perspective learning is in itself a dynamic capability (*Ambrosini et al.* 2009).

not only harder not to rely on their existing mindset (need for unlearning, Hedberg 1981) but are at risk of irreversibly destroying valuable resources by radically breaking the path and culture within the firm where it is not warranted. This not only confirms that dynamic capabilities are path-dependent (see Cohen and Levinthal 1990, Teece et al. 1997). It also makes a contribution to theory by showing that it depends on the dynamic top managerial capabilities (Adner and Helfat 2003) and the ability of top management to assess with regard to required changes how much learning effort can and should be made to absorb new knowledge from outside the firm and to build, integrate, and reconfigure organisational resources and competences correspondingly. As this study has shown, this is a tricky undertaking, as following the suggestions made by *Teece et al.* (1997) and *Eisenhardt and Martin* (2000), the evolution of new dynamic capabilities involves a combination of idiosyncratic and path-dependent elements that are partially unique to the firm and mainly held by the incumbent management and partially industry-specific elements (Narayanan et al. 2009). However, the study provided evidence that the latter cannot be exclusively sourced from inside the firm in fast-changing environments. This study has furthermore illustrated, using the example of the loss of knowledge of the functioning of the organisation in the case organisation (here especially in DT's headquarters), that a strong focus on new knowledge at top level bears important risks with regard to change processes. Thus the findings of this study suggest that it is neither efficient to source regenerative dynamic capabilities at top level exclusively based upon existing knowledge and capabilities (Telekom KONTAKT, fixed network business) nor based upon completely new knowledge and capabilities (four pillar strategy, DT headquarters).

The contributions to each of the above identified two learning styles ('experimentation' and 'competency-acquisition') will now be summed up in the following sections.

### 6.2.2.1 TLOL through Experimentation

This study has confirmed that in general, experiential, iterative approaches are common in high-velocity markets such as the telecommunications industry (Eisenhardt and Martin, 2000). As mentioned earlier, the evidence from the cases suggests that particularly experimentation with those ideas, processes etc. was powerful, which modified the formal structuring of the organisation as well as the top management.

Despite having been widely adopted by the organisational learning and related literatures that 'structural elements' represent a central parameter to establishing an organisation which is good at organisational learning (see Tsang 1997), empirical research on the type, usage and effect of structural elements for TLOL—with few exceptions, (e.g. Richter 1999; Hambrick 1994)—has often been neglected in previous studies. This study extends existing theory by demonstrating that not every change in the formal organisation mattered for TLOL, or had an effect that corresponded to the intention expressed, e.g. by the CEO (for example the four-pillar strategy). Furthermore, it could be shown that the frequency of the use of certain initiatives or methods says little about their real importance for—or the effectiveness of TLOL (compare section 5.3.1). The findings generated by this study thus confirm that TLOL does not automatically lead to advantage (similar Helfat et al. 2007, Ambrosini et al. 2009) and conflict with *Yeung et al. (1999)*, who claims that "*Experimenters Are High Performers*" (Yeung et al. 1999, p. 61).

Given that very few studies have so far examined the role of organisational structures as a driver for knowledge creation, sharing, integration and transfer (see e.g. Zollo and Winter 2002, p. 37, Lane et al. 2006, p. 857) a vital contribution of this study is the identification of common patterns or commonality of those deployed methods for TLOL that led to changes of the formal structuring of the organisation and which evidently had an important impact on TLOL. It was thus found that the deployed methods that played an important role for TLOL went along with the simultaneous change of the allocation of

power and resources as well as of decision-making processes (annotation: in the case company in the direction of stronger decentralisation) and the company's formal definition of the top management, which was derived from the structure of the top management. This not only supports *Easterby-Smith et al.*'s (2008b) general call for more attention in organisational learning literature and research to the political nature of organisations. Specifically, it points out the importance of formal structures in defining the interaction of senior managers "as actors performing organisational roles" (Lane and Lubatkin 1998, p. 465) and in defining those holders of knowledge who are more likely able to impose their will, or exercise an influence on strategy development (Mintzberg 1992) and resulting strategic decisions. A change of the formal structure thus helps to overcome barriers that result from the top manager's held norms about power and influence (Richter 1999) and so contributes to making new knowledge available and exploitable (Jones 2006).

The study mirrors *Van den Bosch et al.*'s suggestion (Van den Bosch et al. 1999, Van den Bosch et al. 2003), according to whom a change in organisational form brings about changed knowledge absorption<sup>211</sup>. A change of the formal organisation can be seen as a learning mechanism to create and develop new processes and routines which enable the organisation to cope with turbulent change (Zollo and Winter 2002). Although this study has shown (e.g. the implementation of the four-pillar-strategy) that purpose is not necessary for learning to occur, this study has confirmed the importance of corresponding deliberate learning mechanisms (Zollo and Winter 2002) and of reflection on action of the top management.

This research thus provides empirical evidence for the important meaning of structures for TLOL as suggested by *Klimecki* (1997), *Kammel* (2000) and *Berends et al.* (2003).

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<sup>211</sup> So could be shown in accordance with van den Bosch's suggestion, that the four-pillar-division form facilitated divisional knowledge absorption and so TLOL at the level of the corresponding businesses; it suppressed integration and TLOL at group level which was detrimental in converging markets.

Furthermore, it could be demonstrated that changes in the formal organisation can either help to overcome or worsen inertial forces (e.g. structural barriers in multi-divisional firms, Zollo and Winter 2002) that impede TLOL. Whereas the case of the top management of the mobile business demonstrated that newly-created subsidiaries were better suited to the development of fast growing markets which require a fast adaptation to change, showed the case of the top management of the systems business that inertial forces increased resulting from the decision to merge with an equally-sized other company.

This evidence from the cases clearly overlaps again with *Finkelstein and Hambrick's* concept (1996) of managerial discretion, according to which a changed allocation of power and resources exerts an influence on the top management's latitude of action and therefore their possibilities to influence organisational outcomes. In that connection, one of the major contributions of this study is to show, that it is not only crucial for TLOL to occur to make use or bring in new knowledge at top level. The findings generated by this study rather suggest that it is indispensable to simultaneously reduce the forces that limit managerial discretion or to strengthen the forces that increase the top management's latitude of action. Following *Finkelstein and Hambrick's* (1996) suggestion, learning results are only then reflected in organisational outcomes.

#### **6.2.2.2 TLOL through Competency-Acquisition**

It has been shown that another set of methods for TLOL used in this study (e.g. the deployed principally on-the-job initiatives and methods for TLOL, section 5.3.1) corresponds to *Yeung et al.'s* (1999) learning style competency acquisition. This study specifies the corresponding methods for TLOL, which are concerned with using the experience of others for one's own learning processes. It was thus found in this study that mergers and acquisitions, and above all, external recruiting were used. In accordance with *Hedberg* (1981), it could be demonstrated that the acquisition of new resources from



without was also necessary to overcome slow unlearning and to replace top managers who were not ready to learn in that fast changing environment.

Contrary to *Yeung et al.*'s (1999) suggestion, and despite the case company's long tradition in training, off-the-job training for TLOL played no role in any of the multiple cases within the Group. This reflects the top managers' general preference for on-the-job learning (Antonacopoulou 2002; Richter 1999; Davies and Easterby-Smith 1984) and confirms the point identified by *Kammel* (2000, p. 659) and *Beer et al.* (1990) that training programs can only increase the probability and efficiency of strategic change and learning but do not change organisational behavior as they do not affect enough elements in the system.

In contrast to that, the findings generated by this study showed that external recruitment and acquisitions led in the course of time to the allocation of new competencies at top level that the organisation did not previously have. This mirrors not only the work of *Simon* (1991, p. 125) who suggests that organisational learning can also be achieved by ingesting new members who hold new knowledge. By identifying a direct link between the recruitment of key personnel (e.g. a new CEO) and the implementation of new operational routines or initiatives (e.g. the implementation of the "T"-brand in the case organisation), the study also provides empirical evidence for *Ambrosini et al.*'s (2009, p. S19) suggestion that dynamic capabilities can be sourced from outside the firm. Finally, this study confirms *Hambrick and Mason* (1984) and *Hambrick* (1994) who indicate that just as the organisational context shapes the top management group, the "*top group makeup has significant bearing on the fates of the organizations*" (Hambrick 1994, p. 186). However, this study has extended their work and the overall very sparse and partly virtually non-existent or inconsistent empirical research in the field (compare e.g. Miller et al. 1998; Jackson 1992) by identifying compositional characteristics of top management groups of the rapidly changing case organisation and its business divisions. It further

contributes to theory by exploring the linkages between these characteristics of the top management group and its learning environment.

Furthermore, the study extends as will be shown below the understanding of the relationships between top management characteristics and the outcomes of TLOL. There is thus wide agreement in the dynamic capabilities and absorptive capacity literature and research (e.g. Jones 2006, Easterby-Smith et al. 2009, Ambrosini et al. 2009, Narayanan et al. 2009) that managerial perceptions, beliefs and competences matter for the creation and development of these constructs and will trigger change in a defined way. However, little is known so far about the interrelationships (Easterby-Smith et al. 2009, p. S5).

This study was able to elucidate some of them. A series of overall trends as regards the evolution of what *Hambrick* called “*quantity of a compositional characteristic as well as the dispersion of that characteristic within the group*” (Hambrick 1994, p. 177) could be identified that resulted from external recruiting and acquisitions—and thus the use of the learning style competency-acquisition.

Firstly, a clear drop in the average age of top management. This research thus confirms the findings of *Wiersema and Bantel’s* (1992) empirical study, which creates a proximate connection between certain demographic traits such as low age and the receptivity to change and willingness to take risk. It likewise mirrors the findings of *Hambrick and Mason* (1984), according to which a lower age is associated with growth and volatility of sales and earnings. Above all, however, this study supports *Eisenhardt et al’s* (1998) suggestion and extends this to TLOL, whereby top management groups with large age spreads outperform other teams. So this research indicates that large age-spreads drive TLOL in fast-changing environments.

Moreover, the findings generated by this study show a steadily decreasing organisational tenure of the top executive managers in the organisation. In contrast to *Hambrick and*

*Mason's* (1984) suggestion, no uniform effect of organisational tenure on TLOL could be established. Instead of drawing unjustified, simple conclusions on the linkages between organisational tenure and strategic persistence or the absence of strategic change (compare Hambrick and Mason 1984), this study was able to demonstrate that the assessment of whether longer organisational tenures drive or hinder TLOL depends far more significantly on organisational context and strategic intentions, and therefore on which know-how is required. In accordance with *Becker* (1970), and as was made particularly clear in this study through the example of the headquarters and fixed network top management group, extensive tenures and therefore a mix of top managers with firm-specific, idiosyncratic knowledge about the organisation (“insiders”) and holders of specific new knowledge (“external hires”) is then necessary and conducive when the firm or parts of it requires efficiency.

The findings generated by this study thus also echo and further elaborate the suggestion from *Prieto and Easterby-Smith* (2006) and other academics (*Zollo and Winter* 2002, *Gibson and Birkinshaw* 2004, *Newey and Zahra* 2009) who take a dynamic capabilities perspective and who identified that the long term continuous renewal of the firm rests not only on the exploration of new knowledge-based competences but also on the exploitation of existing knowledge-based competences. In doing so the findings partly relativise *Eisenhardt and Martin* (2000, p. 1111), who differentiate between moderate and high-velocity markets and who consider the existing knowledge of managers in high-velocity markets rather as detrimental to the rapid situation-specific creation of new knowledge. However, the evidence generated from this study rather shows that in turbulent environments and complex organisations, existing knowledge on the functioning of the organisation at top management level combined with entrepreneurship—which was in the case organisation mainly brought in from without—leads to more efficient TLOL and the creation of dynamic capabilities. This is supported by *Finkelstein and Hambrick* (1996, p. 26), who suggest that managerial discretion, and

thus the top management's ability to control the form and fate of the organisation, not only stems from contextual factors but is also derived from the degree to which the individual top managers are able to envision or create multiple possible courses of action. Similarly *Easterby-Smith et al.* (2009) propose that dynamic capabilities—and learning is considered as a dynamic capability itself (Ambrosini et al. 2009, p. S11)—can be created because the top management provides a vision for processes aimed at shaping the dynamic capabilities (Easterby-Smith et al. 2009, p. S4).

The evidence from the cases furthermore showed that the level of diversity of the top management group increased in the period under review as a result of external recruiting and acquisitions. This is reflected in a mix of national and international top executive managers with differing formal education as well as professional experience in companies from different industries and of different sizes. It could be additionally demonstrated, that increasing numbers of competencies settled at the top level that were necessary to reach the formulated aims, and that increasing specialisation took place. Previous empirical research has not produced consistent empirical foundation on the issue of diversity (see e.g. Wiersema and Bantel 1992; Glick et al. 1993; O'Reilly et al. 1993; Murray 1989). However, this study was able to confirm the suggestion of *Ambrosini et al.* (2009, p.S6) and *Miles and Snow* (1978) that strategies are self-reinforcing over time, and was able to extend their work by further elaborating the link between strategy, diversity of the top management group and TLOL. It could thus be found that diversity, similar to age, tends to directly or indirectly create disagreements when strategic issues are being considered. At the same time, it could also be demonstrated that high levels of diversity were problematic and led to lacking cohesion and personnel turnover, and consequently hindered TLOL. This study thus supports *Miller et al.* (1998), who observes that high levels of cognitive diversity can lead to the inability to reach decisions and manage strategic change. The research extends his work as well as *Hambrick's* (1994) by further elaborating the crucial role of the CEO for dealing effectively with diversity and for the

encouragement of TLOL. This is important as the absence of shared mindsets of the management involved can lead to negative results (Ambrosini et al. 2009, p. S22).

Finally, the study demonstrated that external recruiting had important side-effects. The findings generated by this study thus suggest that external recruiting at top level contributed to an increasing high frequency of organisational change that hindered TLOL. This was shown e.g. by the numerous organisation development projects which were initiated by the systems or the headquarters top management group. The study not only elucidated interrelationships between different methods for TLOL (e.g. recruiting and restructuring) but showed that, in turbulent environments, organisational change can develop a certain momentum on its own. The findings mirror the point made by *Culley* (1989), *Baldwin and Lawson* (1995) and *Senge* (1990) that executives are action-oriented, control relatively little what they learn and lack self-reflective competence. This clearly conflicts with the call of proponents from the dynamic capabilities stream for deliberate learning mechanism (Zollo and Winter 2002) or a purpose to create, extend or modify its resource base (Helfat et al. 2007, p. 4). It does not question the importance of top managers for the creation and development of dynamic capabilities, but illustrates particular risks resulting from the specific characteristics of top managers and underlines why a planned process for TLOL as suggested by *Baldwin and Lawson* (1995) is particularly needed in such contexts.

### **6.2.3 An Integrated Approach to TLOL in Fast-Changing Environments**

The previous discussion of TLOL from an actors as well as a resources perspective showed that any part of explanatory theory on TLOL requires different albeit integrated ways of considering the phenomenon. In this section both of the named perspectives discussed in the previous sections, are summarised and combined into a new integrated approach to TLOL.

The table below which is derived from the overview of the deployed methods for TLOL in the case organisation (see table 26), sums up the deployed methods for TLOL within the investigated case and contrasts indicators of impact and outcomes of TLOL.

Deployed methods for TLOL in case organisation	Main Explanation for these variations (from the literature)	Rationale for the use of the Learning Method in case organisation	Indicators of 'impact'/ Outcome at top level
Regrouping of existing resources around required competencies <sup>A</sup>	Develop new competencies based upon controlled experimentation with many new ideas, new products and processes; primary sources of learning are customers and employees (direct experience), (see, Yeung et al. 1999)	No access to external resources (legal constraints);  Create pressure to overcome old thinking and achieve cultural change	Identification of those who were ready to learn and those unwilling to learn (who were dismissed in the next step)
Restructuring		Cost-cutting (incl. staff reduction) and/ or improvement of efficiency	Reduction of top management positions (flatter hierarchies), Competition and rivalry, Action-taking (one measure follows another; no reflection on previous action)
Business redefinition <sup>B</sup>		Increasing the company's value on the capital market	Increasing internal competition, worsening of cooperation and increasing conflicts
Spin-off in separate subsidiaries		Bypass legacy of the past and gain flexibility in fast growing and highly competitive markets	New top management groups with new, needed competencies and high degrees of managerial discretion
IPO & joint branding		Sourcing capital in the capital markets for investments in infrastructure and acquisitions	Strengthened identification with the company; increasing group-internal job rotation
International acquisitions	Acquisition of new competencies and experience of others (from external) to help organisational members to acquire state-of-the-art competencies and accelerate their own subsequent development, ( see Yeung et al. 1999)	Compensate for the loss of monopoly in the domestic market; Shift from a national stand-alone company to a global player	Rise in international top managers, but no effect on TLOL as there is no personal/procedural integration of staff.
Diversification <sup>C</sup> (national acquisitions)		Extension of competence profile and portfolio on the market	Due to poor integration, acquired competencies could not become effective; cultural conflicts and high personnel turnover
Top management Training		Shift from sovereign behaviour and technical orientation to customer-oriented behaviour and entrepreneurship	Limited effect on TLOL; as attitudes have not changed fundamentally; time-consuming,

External recruiting		Fast sourcing of needed new specialist competencies	Specialised competencies acquired; however a partial deterioration in cooperation (e.g. due to high levels of diversity or the recruitment of 'stars' instead of team players)
Dismissals/ deliberate turnover	Foster readiness to learn and unlearning (see (Hedberg 1981))	Replacement of those who were unwilling or not able to learn	Minimisation of opponents to changes already decided upon; loss of knowledge on the functioning of the complex organisation

)A corresponds in case organisation e.g. to e.g. Telekom KONTAKT

)B corresponds in case organisation to e.g. 'four-pillar-strategy'

)C corresponds in case of systems business e.g. to the merger with debis Systemhaus

Table 40: Learning Methods and Indicators of Impact

The table above demonstrates that the main learning methods which were deployed in the case organisation correspond—from an actors perspective—to organisational learning styles at management level which following *Yeung et al.'s* (1999) suggestion are the most effective ones to create new competitive advantages in the described turbulent environment<sup>212</sup>. However, in contrast to *Yeung et al.'s* (1999) research, but in agreement with *Hedberg* (1981), this research highlights—based upon empirical evidence—the need to draw particular attention to the issue of unlearning.

This study also enhanced the overall understanding of learning styles by elaborating the interrelationships between experimentation and competency-acquisition. The evidence from the cases (here: fixed-network business) showed that in contrast to *Yeung et al.'s* (1999) suggestion TLOL merely through experimentation with the organisation's own existing resources in rapid-changing environments was not effective (compare Telekom KONTAKT, section 4.4.3.1), but strongly needs to be complemented by unlearning (e.g. through dismissals) and the simultaneous external acquisition of new competencies (e.g. through external recruitment). Hence an appropriate balance between the exploration of new knowledge-based competences and the exploitation of existing knowledge-based

<sup>212</sup> These new competitive advantages, in whose creation and development great significance is attached to top management and managerial agency (Helfat et al. 2007, p. 20), mainly refer to what *Ambrosini et al.* (2009) calls 'renewing' or 'regenerative' dynamic capabilities.

competences is required (Zollo and Winter 2002, Gibson and Birkinshaw 2004, Prieto and Easterby-Smith 2006, Newey and Zahra 2009).

A further important contribution of this study resulted from the examination of the role of organisational structures for TLOL. The findings generated from this study point out the importance of formal structures in defining the interaction of senior managers “*as actors performing organisational roles*” (Lane and Lubatkin 1998, p. 465). It could thus be found that the deployed methods that played an important role for TLOL went along with the simultaneous change of the allocation of power and resources as well as of decision-making processes and a changed structure of the top management. The study thus highlights the political nature of organisations (Easterby-Smith et al. 2008b) and the meaning of the top manager’s held norms about power and influence (Richter 1999) for TLOL.

On the basis of the application of the relevant learning methods as well as the indicators of “impact” (see table above), the study showed that the selection and results of the learning methods used are significantly derived from factors that, corresponding to *Finkelstein and Hambrick’s* (1996) suggestion influence how much effect the top management has on organisational outcomes. As discussed in section 6.2, these include factors related to the exogenous environment, strategy, characteristics of the organisation and the top management. This stresses the importance of applying an integrated approach which reconciles managerial agency and resources. However, it was shown, that, so far, managerial discretion—to which this study has added specific insights in relation to TLOL—has largely been ignored by researchers and theorists on TLOL<sup>213</sup>.

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<sup>213</sup> The same is apparently valid for its impact on the creation and development of dynamic capabilities or absorptive capacity. *Lane et al.* (2006) claims, for instance, that “*prior research has failed to recognize that absorptive capacity can be seen as a multilevel construct. A firm’s absorptive capacity is not just a function of industry and corporate characteristics. It also is a function of the personal absorptive capacity of its members, as well as the structures and processes of the organizational subunits to which they belong*” (Lane et al. 2006, p. 854).



In that connection there is a further contribution of this study in the necessity to differentiate between the different levels of actors and different levels of resources, which was of particular importance in the diversified case organisation.

The findings generated by this study suggest that particular attention has to be paid to the interplay between the corporate top management group as actors who take a group perspective and divisional top management groups as actors who mainly concentrate on their own division. The study of this diversified case organisation has shown that the structure of the top management led, in accordance with *Hambrick's* suggestion (1994), to role ambiguities and conflicts. Based upon the findings generated by this study, this research has not only extended *Hambrick's* work by providing empirical evidence that these role ambiguities and conflicts also had an effect on the indicators of 'impact' or outcomes of TLOL—for example on the quality of cooperation. It could be identified that the development of corporate as well as divisional strategies—a process which is associated with learning (see Mintzberg and Quinn 1991)—and their agreement between corporate and divisional top management played a crucial role for TLOL in order to ensure that the top executive managers themselves recognise a learning need, understand the meaning of the learning challenge and make the decision to engage in the learning process (see Humble 1973; Stewart and Stewart 1981; Lloyd 1990; Hoeksema et al. 1997; Eisenhardt et al. 1998).

Furthermore, this thesis contributes to an enhanced understanding of the interplay between the top management group and its different parts and the case organisation. The findings generated by this study highlight the importance of the coherence between the knowledge of the actors and the extant resources. The study thus mirrors the suggestion from *Klimecki* (1997) that the top management and the organisation form an inevitable learning community. This study extends *Klimecki's* suggestion by showing that for effective TLOL to occur, the corporate top management group heading an

organisation that is mainly composed of a large, mature part requires firm specific knowledge to achieve efficiency or make use of past experiences to predict future events (compare Becker 1970).

Overall, this mirrors the work of *Antonacopoulou* (2002) who found that top management learning is a complex product of contextual factors. The core contribution of this study is, however, that TLOL is circumscribed by the top management's latitude of action and learning (Finkelstein and Hambrick 1996), which in turn is a product of top managerial agency, the perception of entrepreneurial opportunities and extant contextual and organisational factors and resources. Hence, the contributions to each of these perspectives are not mutually exclusive, but reinforce each other, which indicates the need for an integrated approach to TLOL.

Finally, as an important 'by-product' of this research and given that, following *Ambrosini et al.* (2009), TLOL can in itself be seen as a dynamic capability, this study contributes to theory by creating a direct link between the constructs of dynamic capabilities and the process perspective of absorptive capacity—which *Zahra and George* (2002) define as a dynamic capability—and the construct of managerial discretion. It also further elaborates – as has been shown above - *Zahra et al's* (2006, p. 918) definition of dynamic capabilities<sup>214</sup> and contributes to *Ambrosini et al's* (2009, p. S20) discussion on the deployment of regenerative dynamic capabilities. It furthermore provides empirical evidence that managerial agency and managerial roles and the top management's perception of the firm's resources and capabilities determines the decisions to develop and deploy different forms of underlying processes, which can create the flexibility that enables organisations to compete in fast-moving markets.

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<sup>214</sup> They define dynamic capabilities as “the abilities to reconfigure a firm's resources and routines in a manner envisioned and deemed appropriate by its principal decision-maker(s)” (*Zahra et al.* 2006, p. 918).

### **6.3 Implications for Practice**

In addition to the theoretical and methodological significance, this study has its managerial contribution and implications. These are primarily significant for CEOs, top executive managers or for all of those who are engaged in top management development and/or organisational learning or development in the broadest sense.

This study thus complies with the demand of *Pfeffer and Sutton* (2006) to gear practical approaches more closely towards scientific insights, instead of basing decisions and activities on supposedly patent solutions or untested management methods. The latter is a substantial problem of the literature on the 'learning organisation' (see Chapter Two, section 2.3), which is primarily based on practical experience and knowledge of consultants. Due to lacking empirical evidence and the trend towards trivialisation and generalisation (compare Argyris and Schön 1996), the concept often only retains the role of a guiding idea and a practice-oriented, theoretical frame of reference, which depends on the discovery and further development of design possibilities (compare Kammel 2000, p. 388).

In addition, top management learning and development in a corporate context was for a long time seen as an individual activity in isolated places of learning and not, or hardly, positioned in connection with organisational learning or strategic change. This is certainly because little is known about how managers learn in the special organisational context (Kammel 2000) and the readiness to share this knowledge is limited (see Baldwin and Padgett 1993).

#### **6.3.1 TLOL and Off-The-Job Learning**

As elaborated earlier, this study has empirically investigated the methods and outcomes of TLOL and was able to show that the learning of the group of people at the top of the organisation can only be understood as collective action that must be seen in close

connection with the specific context (i.e. the components of the conceptual framework of this study: exogeneous factors, strategy, organisation, top management).

As a result, the findings generated by this empirical study mirror the suggestion from *Kammel* (2000, p. 659) and *Beer et al.* (1990) that the qualifying function of off-the-job learning for top managers in times of turbulent change where new expert knowledge is required at top level—regardless of whether off-the-job learning is culturally accepted or not (see *Antonacopoulou* 2002)—is only regarded as being of limited significance.

This suggests that investments in collective training measures for top managers in such contexts should not serve pure relaying of knowledge. Instead, training courses for top management groups in a context of strategic change are rather seen before the background of other targets (e.g. incentive). As far as TLOL is concerned, measures that contribute to improving integration and cooperation at the top level can be useful. It could thus be shown, that following the suggestion from *Jackson* (1992) and *Eisenhardt et al.* (1998), the right balance between cohesion and conflict that is centred on alternative courses of action and interpretation of facts plays an important role in handling diversity and using knowledge at the top level. This practical contribution might be of particular importance for those, who (want to) initiate such measures or who are in charge of the design and implementation of corresponding measures.

### **6.3.2 TLOL and On-The-Job Learning**

The study has shown that in turbulent environments top managers learn primarily outside of targeted training measures, i.e. primarily on-the-job. The fact that TLOL must be seen in close connection with the specific context also leads to practical starting points for shaping or influencing TLOL. The findings of this study recommend to align the top management as well as its organisational environment more closely with learning

processes. In this connection strategy development, structural issues and the composition of the top management group are of particular interest:

### **Strategy Development**

This study reveals that the deployed learning methods in the diversified case organisation, due to insufficient agreement of corporate and business strategies from which the relevant methods for TLOL are derived, did not produce exclusively positive results. This highlights as suggested by *Pedler et al. (1991)*—a proponent of the learning organisation literature—that strategy development and implementation must be more consciously formulated. Beyond formal strategy development processes, the CEO may have an important role as someone who can establish corresponding management meetings, off-site retreats or sessions. These can provide the framework for complex decision-making or the discussion of super-divisional strategic topics. Equally, the CEO can contribute to a better understanding of corporate and business strategies by careful overlapping of job assignments, e.g. passing responsibility for a group-wide project.

### **Structural Issues**

The study was able to demonstrate that TLOL is strongly influenced by the formal structure of the organisation (incl. of the top management) and its configuration, and work in formally-defined teams that derive from this for the top management (e.g. task forces, management committees, etc., see also *Richter (1999)*). The research also clearly showed—whereby it diverges from many proponents of learning organisation literature—that this does not apply to every structural change, and that an excessively high frequency of organisational change can even lead to undesired results. A high frequency of such measures often benefits from the often strong action-orientation and lacking self-

reflection of (particularly newly-recruited) top managers (compare Culley 1989; Baldwin and Lawson 1995; Senge 1990).

Furthermore the findings generated from the cases suggest that in accordance with *Shrivastava* (1983), there is not 'one best way', but there is never a defined path for organisational learning and achieving a "learning organisation" independent from the starting point or context of the organisation.

This suggests that in corporate practice, a planned process for top-level organisational learning as suggested by *Baldwin and Lawson* (1995) is needed, whereby organisation development and TLOL cannot and should not be observed in isolation due to their close connections. The evidence from the cases indicated that structural changes have a strong effect if they involve fundamental changes in the allocation of power and resources, decision-making processes and formal definition of the top management.

As these radical changes are associated with medium-term higher probabilities and also risks, and simultaneously following the suggestion from *Yeung et al.* (1999), with short-term higher costs, the option of such deep structural changes in organisational practices, particularly in large, efficiency-oriented organisations in saturated markets, is seldom available. This should therefore be evaluated more intensively with respect to its effect on TLOL on the basis of a corresponding analysis.

The findings generated by this study have shown that against this background, also the creation of a new subsidiary in a new, fast growing and dynamic market can be an option to promote TLOL, to achieve greater flexibility and get hold of new knowledge at top level.

## **Composition of the Top Management Group**

The study was furthermore able to demonstrate that the composition of the top management group had a large influence on TLOL. The practical recommendation to keep a special eye on a clear recruiting strategy and policy for the top level is derived from this. It could thus be shown that, following the suggestion from *Becker* (1970), the necessary mix of managers with longer tenures, and thus with firm specific knowledge, and external hires with new specific knowledge derive from strategy and the characteristics of the relevant organisation. When the firm required efficiency or past experiences had to be used to predict future events like in the large, mature part of the case organisation, a stronger emphasis had to be put on top managers with higher tenures, whereas the same top managers were less valuable in times of high uncertainty and when new knowledge was required to develop new businesses (e.g. mobile, online etc.).

As a complement to that, the evidence from the cases suggests that the top management at headquarters should be composed corresponding to the relevant businesses and the mix of business strategies. This also corresponds to the view of dynamic capability perspective (e.g. Prieto and Easterby-Smith 2006; Zollo and Winter 2002), whereby the continuous renewal of the firm depends on existing as well as new knowledge-based competencies. Influence on the composition of the top management therefore represents a large opportunity for organising TLOL, of which particularly CEOs should be aware and actively use.

## **Drivers and Barriers of TLOL**

Although a single case study cannot provide a sound basis for the derivation of reliable 'if-then' relationships, this study would suggest that the factors identified in the top management's learning environment that exert an influence on TLOL are of significance

for top management groups in a similar context. The evidence from the cases suggest that these factors not only determine the selection of learning methods for TLOL, but also influence how much the top management's learning is reflected in organisational outcomes.

The conceptual framework (see section 5.7) of this thesis might, in that connection, serve top managers and practitioners to assess their concrete case and derive measures, which are suited to extend top management's room to act and learn.

### **6.3.3 Summary of Implications for Practice**

In addition to the theoretical contributions, the following practical implications could be identified:

- The qualification function of off-the-job learning only has limited significance for top managers in times of turbulent change where new expert knowledge is required at top level. The findings suggest that measures to improve the cohesion and cooperation at the top level contribute to the integration of new knowledge.
- Stronger alignment of top management, as well as of its fundamental starting position which is aligned to performance processes, towards learning processes. Important starting points are:

- Strategy Development:

In this connection, the CEO may have the important role of establishing corresponding management meetings, off-site retreats or sessions, which can offer a framework for complex decision-making or the discussion of strategic themes at a super-divisional level. A further important contribution the CEO can make is the transfer of responsibility for a group-wide project.

- Structural issues:



As TLOL is strongly influenced by the formal structure of the organisation (incl. top management) and their organisation, and the resulting top management work in formally-defined teams (e.g. task forces, management committees, etc.), it is recommended to establish a planned process that does not observe organisation development and TLOL separately due to their close association.

- Composition of the top management group:

Influence on the composition of the top management represents a large field for composition of TLOL, which CEOs in particular should be aware of and actively use by means of a clear recruiting strategy and policy.

- Drivers and barriers of TLOL:

With the aid of the conceptual framework (see section 5.7), factors can be identified and assessed that determine the learning methods for TLOL and influence how much the top management's learning is reflected in organisational outcomes.

#### **6.4 Methodological Contribution and Implications**

Beyond the theory and practice, this study makes a methodological contribution. As indicated by the corresponding little-integrated literature, organisational learning in general and TLOL in particular are immature disciplines which are characterised following *Ketchen Jr. et al.* by “...uncertainty about what constitutes the important questions to be asked and disagreement about how those questions should be addressed” (Ketchen Jr. et al. 2008, p. 644). However, it has often been neglected in the past that research methods can substantially contribute to the advancement of a field's domain (ibid), as in-depth empirical analyses can provide a platform for others to begin developing theories and explain phenomena. In that connection above all very detailed and in-depth insights

and/or longitudinal designs and/or new methodological perspectives can provide unusual data that can lead to subsequent significant theory development.

This study makes a methodological contribution and is an attempt to contribute to the further development of TLOL by providing a rich methodology which ties together a detailed single case-study on TLOL which applies an enlarged definition of the research cohort, a longitudinal design and a dual perspective (here: the actors and resources perspective) on the phenomenon under investigation. The empirical study on TLOL is furthermore carried out by an insider researcher, which contributes not only to a better understanding of a series of epistemological and ontological challenges that have to be overcome when doing research on organisational learning (similar see Antonacopoulou 2002) but also elucidates the specific requirements and constraints of doing research as an internal.

#### **6.4.1 The Top Management as the Research Cohort**

As elaborated in the Methodology Chapter, most research on top managers concentrated on CEOs and top management groups of a very limited size, which is partly due to the problem of getting access (see Finkelstein and Hambrick 1996).

A vital contribution of this study is that a more comprehensive definition of the research cohort has been applied. The single case-study entailed several embedded cases, so that the study on the top management of a diversified firm did not only comprise the case organisation's members of the board of management, but also holders of key positions at corporate level as well as business unit heads at divisional level. Although these top managers all formed part of the same group that sought to transform itself during a turbulent period from a former monopolist into an international, diverse business player, these top managers headed organisations with very different characteristics in terms of growth, size, culture etc..

The top management of the traditional, large and mature part of the organisation thus belonged to the subjects of the research, as did the top management of an initially very fast growing small company in a dynamic market, the top management of a company that was affected by a merger, as well as the top management of the headquarters of the case organisation.

In all cases, these were top managers with considerable responsibility for strategic questions and/or operational business. This study has thus extended the relatively sparse research on the organisational learning of that target group which might, with the advent and growth of diversified firms, be of increasing importance.

#### **6.4.2 Conceptual Framework of TLOL**

A conceptual framework, which was derived from the literature, was used to organise the case study and to define the approach to data analysis. Apart from the fact that other researchers might find this conceptual framework useful as an analysis tool and for their own research projects on TLOL, a further contribution made by this study is the employment of a dual perspective to study TLOL.

Using an 'actors' and a 'resources' perspective to examine TLOL and the dynamic interrelationships between the top management and the organisation is limited and highlights the need to consider different viewpoints and perspectives on this social phenomenon, to enhance the overall understanding of this concept.

#### **6.4.3 Doing Academic Research on TLOL as an Insider**

Qualitative studies on TLOL that are shaped by the hermeneutic tradition (also referred to as phenomenological paradigm, see section 3.3) are mainly interested in particular knowledge, such as how top managers construct reality. As was shown in the

methodology chapter, this means that subjective interpretation is key to the research process and requires that the researcher gets close to the research subjects. In spite of that, following *Brannick and Coghlan (2007, p. 59)*, little attention has been paid so far to insider academic research and when it does it takes a rather negative view on what they call 'going native'. Conversely some argue that there is no inherent reason why insider academic research is an issue (*Brannick and Coghlan, 2007*). Meanwhile, it can be stated that very little traditional research in the field of TLOL has applied a critical theory approach to executives, their actions, decisions and statements, and so has contributed to a better understanding of what executives really do or learn and why (similar: *Ketchen Jr. et al, 2007*). This in turn is—as this study illustrates—a strong point of doing research as an internal.

A vital methodological contribution of this study lies in the fact that it highlights that insider academic researchers can through a process of reflexive awareness make knowledge explicit that is somehow embedded in the organisation and the top management as a sub-system of the organisation. It was furthermore possible to tap into the top manager's construction of reality and elucidate the case organisation's top management's understanding and mental concepts of the methods, outcomes as well as drivers of and barriers to TLOL. This study thus reaffirms the value and potential of insider academic research, especially against the background that today's researchers in the field of organisational learning and neighbouring fields of research such as strategic management, strategic leadership or knowledge management are vexed by the problem that certain constructs such as absorptive capacity, managerial discretion, dynamic capabilities or learning are very appealing but difficult to operationalise, not to mention to observe or to measure or to derive causalities from<sup>215</sup>. Insider academic research might

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<sup>215</sup> For that reason *Ketchen et al. (2008)* came to the conclusion that despite important frameworks (e.g. *Wernerfelt's (1984)* resource-based view) for considering centrally important questions, certain concepts had less impact on the literature than they should have and risk reaching an impasse.

be one potential answer to that problem and might contribute to reduce such construct validity problems<sup>216</sup> (compare Ketchen Jr. et al. 2008).

This study also substantially adds to a better understanding of the specific dynamics and demands that are placed on insider academic researchers who undertake studies involving top managers in fast-changing environments or longitudinal studies. It has been shown in this study that insider academic researchers have to face the challenge to balance disparate interests: academic interests, those of the sponsoring organisation and the individual research subjects.

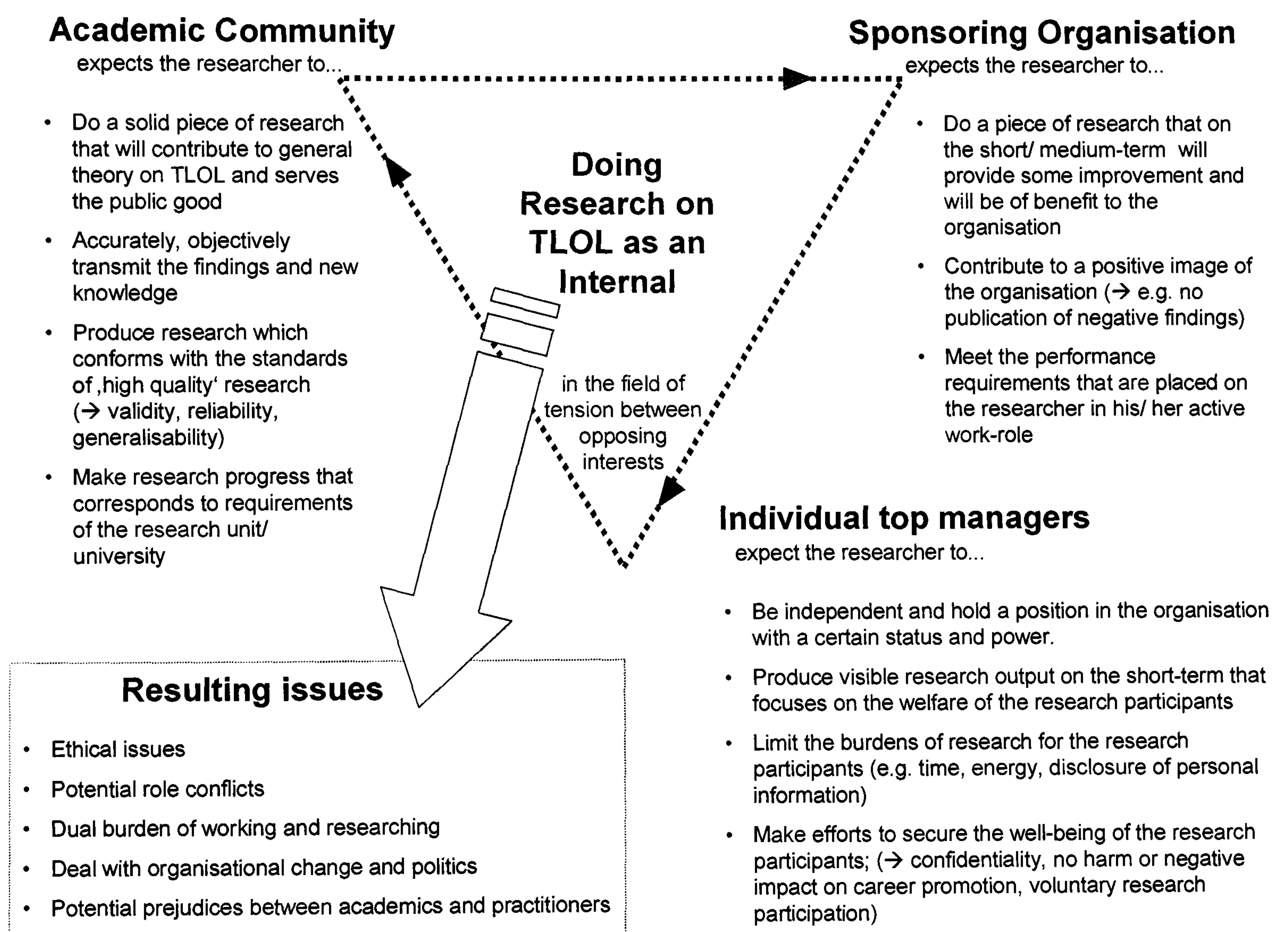


Figure 19: Insider academic research on TLOL—triangle of opposing interests

<sup>216</sup> i.e. that researchers are not measuring what they believe they are measuring

As figure 19 above illustrates, doing research as an internal thus means dealing with partly conflicting and contradictory interests and requires the insider academic researcher to find a compromise in his/ her approach to the research that is acceptable for all parties involved.

For that reason, in the case of this study the first series of interviews with top managers of the case organisation did not primarily serve academic interests. Based upon the interview results a new project in the area of top management development was initiated in DT group and finally implemented by the researcher in her active work-role in the case organisation. This was of benefit for both the research participants and the sponsoring organisation. These short-term, visible results formed the foundation for trust in the continuing research work, which with the agreement of all participants, should also serve scientific purposes. All this would most likely have been almost impossible for a researcher with the active work-role of a “normal” employee. As for example, became clear from the arrangement of the interview appointments, top managers obviously placed value on the researcher’s appropriate, functional and hierarchical position. The latter, together with the top management development project sponsored by the group board, was also not insignificantly seen as a guarantee that actual, visible benefits for the top management would result from the research.

In this connection, this study makes a further methodological contribution by showing that research on TLOL and especially longitudinal research on TLOL is not possible without a rigorous consideration of ethical issues. The experience of this study is that getting primary as well as secondary access over such a long period of time is only possible when the researcher is aware of his/ her ethical responsibilities towards the sponsoring organisation and the research participants and takes corresponding precautions and actions. Only when the three ethical core principles which are particularly relevant for the

ethic of insider research on TLOL, i.e. justice, beneficence and respect for persons (Lindorff 2007) are respected, is the researcher trusted and can himself/ herself be sustainable in the organisation. For that reason and in order to avoid running the risk of being exploitative, it is agreed with *Lindorff (2007)* that there is a strong need for researchers to reflect upon their values, attitudes and professional ambitions and that the consideration of ethical issues deserves a more prominent position in business and organisation research.

In spite of the particular challenges of doing research as an internal, the advantages and strengths of insider research outweigh these however, and lead to the recommendation to use this research approach to a larger extent in the future.

#### **6.4.4 Research of Organisational Learning**

As elaborated in the Methodology Chapter, there are a series of methodological challenges when doing research on organisational learning. On one hand, these are linked with the fact that learning is a conscious as well as unconscious process and leads to resources that are partly tangible and partly intangible, to knowledge that is partly explicit, partly specific to the industry or even the firm and following the suggestion from *Spender (1989)* not accessible from without (similar *Hitt et al. 1998*).

On the other hand, there is no objective, but only a socially constructed measure for the effectiveness of learning <sup>217</sup>, which means that the evaluation of the quality and effectiveness of organisational learning depends on a series of general, industry-, firm-specific, team-specific and individual criteria. These reasons were the cause for the inconsistent results of organisational effectiveness studies identified, and led to *Bryman's* call (*Bryman 1995; Bryman and Bell 2003*) for the abandonment of OE studies.

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<sup>217</sup> *Yeung et al. (1999)* thus attached effectiveness to business performance, which he described in more detail with a set of criteria such as competitiveness and innovativeness.

This study has contributed to the understanding of the concerns raised by *Bryman*, by showing that especially in large organisations there is often a long distance in time and space between the use of learning methods and learning outcomes (compare March 1991). This does not only highlight the need to pursue a longitudinal research approach as it was used in this research project, but also raises the problem of creating a connection between cause and effect of the measure, which in turn requires firm-specific knowledge that again is not accessible from without.

This thesis furthermore contributed to methodology by demonstrating that, as stated by *Finkelstein and Hambrick* (1996), the influence that the top management had on measurable organisational outcomes depended on a series of factors in the top management's learning environment. The study suggests that TLOL was strongly affected by the learning context and only reflected in organisational outcomes when there was high managerial discretion.

For example, acquisition decisions, which had massive implications for the financial figures of the relevant organisation, were thus taken exclusively by the group CEO. In an organisational effectiveness study, in which the variable to be investigated was usually reflected in the organisation's performance, this would probably have led to false results.

Further methodological implications and design requirements for TLOL studies derive from this aspect.

It was thus shown in the Methodology Chapter that most of the research on top managers did not only apply a restricted definition of the research subjects. Very often, those studies comprised individual top managers coming from different companies. Given that there are, according to *Finkelstein and Hambrick* (1996), low-level and high-level discretion industries and organisations, methodological problems as regards the



comparability of the research subjects derive immediately from this—independent of the problems of dealing with tacit knowledge and social constructivism.

Against the background that studies that apply a more comprehensive definition of the top management are already sparse, this study contributes to methodology by providing a single case study in a diversified firm in which the researcher held different active work roles, and in which there was, on one hand, much in common between top managers (e.g. industry, same roots, one brand) and at the same time, on the other hand, great differences (e.g. size, culture). Despite all remaining limitations, there should be greater comparability of individual frames of reference to assess the quality and effectiveness of organisational learning—in contrast to the studies with individual top managers coming from the most diverse industries—with which also knowledge that is not accessible from without (see Spender 1989) can be taken into consideration.

## **6.5 Limitations and Future Directions of Research**

Although this research has made significant theoretical and practical contributions, like any other study, it has limitations that call for further research. This section highlights these, alongside future opportunities for investigation.

First, the vast, interdisciplinary literature on organisational learning extends across multiple theoretical boundaries. In terms of the way in which the current literature is reviewed, it is clear that this study primarily emphasised the literature that concentrates on methods, outcomes as well as drivers and barriers of organisational learning at top management level in fast-changing environments. Though other related literature—such as the literature on top management or executive learning or the strategic leadership literature etc.—has been discussed in this thesis, the review thereof was not the main thrust and was therefore less than extensive. The literature on the learning organisation which corresponds to the prescriptive branch of the organisational learning literature was

also not appraised in detail within the scope of this study, as simply referring to what should be done to foster organisational learning without providing empirical evidence does not produce veridical knowledge. Likewise the ample literature on learning, knowledge management, strategy, the resource-based view, dynamic capabilities or absorptive capacity or the literature on the (formal or informal) structuring of organisations was, with few exceptions, not incorporated into the study. This limitation can be explained by the focus of this study, which aims to make specific contributions to methods and outcomes of TLOL.

Secondly, there are limitations that result from the research design. This study was carried out as a qualitative single case study in which the researcher held an active work role. Although a series of precautions were taken in order to minimise bias, potential ethical issues or potential conflicts of interest on the part of the researcher (see methodology chapter), a limitation of this study lies in the involvement of the researcher in the organisation in terms of an active work-role and the resulting proximity to the research subjects. Therefore, possible leak effects from the researcher's experiences in working with the top managers cannot be fully eliminated, just like blind spots resulting from many years' tenure in the organisation.

As this study was limited to one single case—albeit with its own embedded cases—the findings, to a certain extent, may have limited general applicability. This is a further limitation of this study although a series of countermeasures were taken (see Methodology Chapter) in order to overcome the weaknesses of a single case study and limited generalisability. Whereas further qualitative research may attempt to replicate this study in different organisational settings, quantitative research is suggested in order to extend the value of the research findings. In an initial step, this might include studies in comparable organisational settings and the same industry before moving on to other dimensions.

The last recommendation is related to methodological limitations of this research. As elaborated in the previous section, the process of learning as such cannot be observed. Therefore, in agreement with *Miles and Randolph* (1981), *Giddens* (1984) and *Kammel* (2000), this study reached the supposition that organisational learning has taken place when actions by organisationally key individuals that are understood to entail learning are followed by observable changes in the organisation's patterns of behaviour. This supposition, by definition, excludes all not-observable changes as well as difficult-to-access informal structures such as communities-of-practice (Brown and Duguid 1991; Wenger 1998), which however, can also play a role in TLOL. Such a limitation represents a major research opportunity for future research. This, both with a view to how the not directly observable can be researched, and with regard to their interactions with observable changes, as well as the effects on TLOL.

A further limitation of this study, according to *Finkelstein and Hambrick* (1996), lies in the fact that TLOL is only reflected in organisational outcomes, and is therefore directly observable, if top management has the necessary room to manoeuvre. This does not mean, however, that managers with low discretion do not learn, but that one—even despite the researcher's active work-role in the organisation and the employment of a longitudinal study—cannot directly measure and, a greater difficulty, can partly not observe this. This can—although this phenomenon is less pronounced among internal or external experts/consultants according to *Richter* (1999)—be reinforced additionally by positional solitudes, which can lead to top managers remaining cautious in their meaningful conversations and interactions.

Another limitation of this research also results from the fact that executives themselves often have the tendency to claim positive results for themselves, whereas they like to assign unfavourable outcomes to others or to attendant circumstances. This complicates

the researcher's ability to evaluate certain outcomes and is not always transparent, even for an internal researcher. This was countered in this study by triangulation of data and data sources.

The need for further research in this field is derived from the fact that managerial discretion, after the suggestion of *Finkelstein and Hambrick (1996)*, is also partly determined by the executives themselves, as well as their awareness of multiple courses of action. Although researchers have not so far empirically examined these individual-level bases of discretion, there is agreement with *Finkelstein and Hambrick* when they determine that this represents a critically important arena for further investigation (see *Finkelstein and Hambrick 1996, p.32*). In addition to the recommendations arising from the limitations and research design of this study, further recommendations for future research derive from this study.

Linking the aforementioned individual dimension with industry, corporate and organisational characteristics and putting a stronger emphasis on managerial agency could also further contribute to a better understanding of the process perspective on the development of dynamic capabilities (*Narayanan et al. 2009*) or absorptive capacity (*Lane et al. 2006, p. 854*). Overall, the relationship between TLOL and dynamic capabilities or absorptive capacity offers many further promising directions for future research.

More longitudinal empirical studies, as suggested by *Easterby-Smith et al. (2009)* and many other authors (e.g. *Lane et al. 2006*), could help to fill this salient gap and to better understand the relationship between the top management, TLOL and the creation and development of the firm's abilities to create, maintain and renew its bases of competitive advantage (*Easterby-Smith and Prieto 2008*).

Given a clear definition of the constructs of dynamic capabilities and how they can be measured (for a critical discussion on that see *Easterby-Smith et al. (2009)*),

corresponding research could also include e.g. empirical work on *Eisenhardt and Martin's* (2000, p. 1109) concept of 'equifinality', which suggests that there are multiple paths which lead to the same or similar dynamic capabilities.

As elaborated earlier, there is still—partly due to the access problem—very sparse research on TLOL and neighbouring research areas such as top management or executive learning which also explains the impressive presentation by *Finkelstein and Hambrick* (1996) of future research directions of research on top executive managers. Whereas existing research often concentrates on CEOs or individual, selected top management positions, future research efforts should go beyond that and apply an expanded and a more differentiated approach. Some further work on 'whom to study' could provide deeper insights into the common points and differences that exist between CEOs and top executive managers in large and small companies, in diversified and non-diversified firms, between corporate and non-corporate managers and between top executive managers with differing functions (e.g. operational and/or strategic). This would also provide an important contribution to which functions are comparable and which are not and how these different groups of top managers contribute to the creation and development of dynamic capabilities (see e.g. for corporate managers Adner and Helfat 2003).

Indeed, it is known that top managers predominantly learn "on-the-job". However, very little is known about the process of organisational learning—especially at top management level. Likewise, empirical studies on organisational learning styles at management level or methods for and outcomes of TLOL are still sparse. Such limitations call for more studies in this area, which take into account the interplay between different levels of learning.

Furthermore, little is known about the interaction of the composition of the top management group (e.g. significance of executive background factors such as demographic traits, functional background etc.), structure of the top management group (e.g. role interdependence) and behavioural integration (i.e. cohesion versus conflict) of the top management group and its impact on TLOL. The same applies to the effect of incentive and reward schemes as well as executive compensation or also the role of the CEO, for which reason these fields show promising directions for future research.

Likewise, based upon the large literature in that field, further empirical research on drivers and barriers of TLOL is needed which specifies those factors that are of particular relevance for the top management. A deep understanding hereof would allow better active organisation of TLOL in different contexts.

It becomes evident that large areas in the field of TLOL still remain unexplored. This clearly not only calls for more qualitative as well as quantitative research. The great practical and theoretical interest in organisational learning and the learning organisation also hides the opportunity to further integrate the fragmented literature and research in the field of TLOL.

## **6.6 Final Summary**

In conclusion this thesis has explored the methods and outcomes of top-level organisational learning. The study did not only identify and analyse a large number of methods for TLOL, it so contributed to a better understanding of the phenomenon and was able to identify a series of factors that fostered or impeded TLOL.

In a nutshell, the study finds that the interplay between exogeneous factors, strategy, the characteristics of the organisation and the top management shapes the methods used for

TLOL, for which reason the applied methods are clearly different from one another, also in the different parts of the case organisation (here: large, mature part versus young, fast growing part). As has been illustrated, an 'actors' as well as 'resources' perspective was used to examine the methods and outcomes of TLOL. This contributed to an enhanced understanding of the dynamic interrelationships between the top management and its learning environment and the links between the methods used and organisational outcomes. This study particularly highlights the need for realistic observation of TLOL, whereby there are no simple cause-effect relationships and whose outcomes are not exclusively positive and do not exclusively contribute to solving the organisation's problems. Finally and although this was not the initial intention of this thesis, the study has added specific insights to the role and impact of the top management on what *Cohen and Levinthal* (1989, p. 569) call a firm's 'learning'. It thus contributed to an enhanced understanding of how TLOL links to the process perspective on the development of dynamic capabilities and absorptive capacity which is a prerequisite for organisations to compete in such fast-moving contexts.

This study has also been able to offer some practical suggestions and provides a new conceptual framework that allows researchers and management to systematically examine and shape top-level organisational learning within their own organisations. Finally reflecting on the experience of conducting this research on TLOL as a longitudinal study and as an insider researcher, the study has been able to offer some methodological insights that can be useful for future research in the field of organisational learning.

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