

**ORGANIZATIONAL AMBIDEXTERITY:
A MULTI-LEVEL PERSPECTIVE
ON ORGANIZATIONAL ALIGNMENT**

DISSERTATION

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St. Gallen, May 17, 2010

The President:

Prof. Ernst Mohr, PhD

To my parents and to my godmother whose generosity and unconditional love made it possible for me to live a life of curiosity and exploration.

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List of Abbreviations

*	significance (level of 10%)
**	significance (level of 5%)
***	significance (level of 1%)
€	Euro
abs.	absolute
AG	Public Limited Company (German <i>Aktiengesellschaft</i>)
CEO	Chief Executive Officer
CIO	Chief Investment Officer
COO	Chief Operating Officer
CTO	Chief Technology Officer
e.g.	for example; for instance (Latin <i>exempli gratia</i>)
et al.	and other people (Latin <i>et alii/alii</i>)
HR	Human Resources
IT	Information Technology
min.	minimum
max.	maximum
perf.	performance
POLS	Pooled Ordinary Least Squares
rel.	relative
ROE	return on equity
s.d.	standard deviation
SIC	Standard Industrial Classification
std.	standard
UK	United Kingdom

U.S. United States
VP Vice President

Dissertation Summary

Building upon the literatures of organizational learning, organization design, and strategic management, this dissertation links patterns of organizational alignment to explorative, exploitative and ambidextrous learning behaviors. The following research questions are addressed: *How relevant are ambidextrous organizational alignment patterns in today's business environments? What are the performance effects of different organizational alignment patterns? How is ambidextrous organizational alignment's performance impacted by the external environment's moderating effect? How are different internal configuration patterns related to performance?* We test concrete propositions related to these research questions based on a longitudinal data set of 79 major European insurance companies' organizational alignment moves in the domains of corporate strategy, business strategy, and organizational structure. Our findings show that ambidextrous organizational alignment patterns are widely used in today's business environments. However, its distinct performance effects are highly dependent on contingency factors such as environmental munificence. We further show that different alignment patterns – one-sided and balanced – are complementary rather than mutually exclusive. Both patterns are used over time to address different environmental requirements. Our findings show that ambidextrous firms tend to reorchestrate and realign their resources more often than their one-sided peers. We support the notion of organizational ambidexterity as being a dynamic rather than static alignment capability. We use our findings to discuss theoretical and practical implications and indicate important avenues for future research.

Zusammenfassung der Dissertation

Diese Dissertation baut auf Erkenntnissen aus den Theoriedebatten zum Organisationalen Lernen, zum Organisationalen Design und zur Unternehmensstrategie auf. Wir erstellen ein umfassendes Modell, das es ermöglicht, spezifische Muster für eine Anpassung der Organisation auf exploratives, exploitatives und ambidextres Lernen zu erkennen. Die folgenden Forschungsfragen werden dabei adressiert: *Welche Bedeutung haben ambidextre Organisationsmuster im aktuellen Unternehmensumfeld? Welchen Einfluss haben unterschiedliche Muster organisationaler Ausrichtung auf den Erfolg eines Unternehmens? Welchen moderierenden Effekt hat die Umwelt auf den Erfolg, der mit einer ambidextren Ausrichtung erzielt werden kann? Welchen Erfolgseffekt haben unterschiedliche interne Konfigurationen für Ambidexterität?* Wir testen konkrete Hypothesen zur Beantwortung dieser Forschungsfrage anhand eines longitudinalen Datensatzes, der die detaillierten Aktivitäten von 79 wichtigen europäischen Versicherungsunternehmen in den Bereichen Unternehmensstrategie, Geschäftsfeldstrategie und Organisationsstrukturen umfasst. Die Untersuchung zeigt, dass organisationale Anpassungsmuster zugunsten organisationaler Ambidexterität breite Anwendung finden. Die spezifischen Effekte auf den Erfolg hängen dabei stark vom Unternehmensumfeld ab. Unterschiedliche Ausrichtungsmuster - ob exploitativ, explorativ oder balanciert - werden komplementär angewandt und schliessen sich gegenseitig im Zeitablauf nicht aus. Elemente der verschiedenen Grundmuster organisationaler Ausrichtung werden verwendet, um sich wechselnden Umweltbedingungen anzupassen. Ambidextre Unternehmen reorchestrieren ihre Ressourcen häufiger als ihre einseitig ausgerichteten Konkurrenten. Organisationale Ambidexterität sollte daher zukünftig weniger als statische Kompetenz untersucht werden, sondern vielmehr als dynamische Anpassungsfähigkeit. Zum Schluss werden die theoretischen und praktischen Implikationen der empirischen Untersuchung anhand eines vertieften Fallbeispiels dargestellt und einige vielversprechende Möglichkeiten für weitere Forschungsvorhaben vorgeschlagen.

*Efficiency is doing things right.
Effectiveness is doing the right things.*

(Peter Drucker)

1. Introduction

In today's competitive arena, maintaining the right balance between exploration and exploitation is one of the foremost tasks for incumbent firms (Benner & Tushman, 2003; Floyd & Lane, 2000). Exploitation refers to the efficient use of existing resources to ensure short-term profitability. Exploration requires investments into new capabilities to create new markets and gain new customers that ensure the firm's long-term success (Levinthal & March, 1993; March, 1991). As competition intensifies, resulting from the globalization of markets, shortening of product life cycles, and rapid technological change (Jansen, 2006), even mature industries are becoming increasingly dynamic (D'Aveni, 1994). This leads to severe tensions between competing successfully in the present, while at the same time preparing for future viability (Gupta, Smith, & Shalley, 2006).

While earlier studies often regarded the trade-offs between exploitation and exploration as insurmountable, more recent research introduced the concept of the *ambidextrous organization* that is capable of reconciling the conflicting requirements (e.g., Tushman & O'Reilly, 1996; Gibson & Birkinshaw, 2004; Raisch & Birkinshaw, 2008; Simsek, 2009). Early conceptual research on organizational ambidexterity has been expanded to empirical studies on the relationship between organizational ambidexterity and firm performance (Gibson & Birkinshaw, 2004; He & Wong, 2004), as well as the antecedents (O'Reilly & Tushman, 2008; Lubatkin, Simsek, & Vega, 2006), and moderators of organizational ambidexterity (Auh & Menguc, 2005; Raisch, Birkinshaw, Probst, & Tushman, 2009).

While research on organizational ambidexterity is vital, the question of how to maintain a balanced organizational alignment to enable ambidexterity remains an

"undertheorized, underconceptualized, and, therefore, poorly understood phenomenon" (Simsek, 2009; O'Reilly & Tushman, 2008). Three major shortcomings of existing research contribute to this conclusion: First, the validity of earlier studies may be undermined by their *static* character. Organizations are continuously aligning their strategies and structures (Nickerson & Zenger, 2002; Siggelkow, 2002). Studies have shown that success is a question of dynamic alignment rather than static fit (Zajac, Kraatz, & Bresser, 2000). Exploring how firms align their strategies and structures to become ambidextrous may thus require longitudinal investigations.

Second, the validity of these studies may be further reduced by their *generic* character. Contingency theory argues that universally superior configurations do not exist. Organizational alignment is dependent on the environmental and organizational context (Burns & Stalker, 1961; Lawrence & Lorsch, 1967). A better understanding of how different alignment activities affect organizational ambidexterity and firm performance may thus require the consideration of internal and external moderators (Jansen, Van den Bosch, & Volberda, 2006).

Third, research on ambidexterity lacks an adequate degree of *conceptual integration*. While previous studies shed light on subproblems of organizational ambidexterity, the interactions of internal and external factors influencing the phenomenon have not yet been captured and integrated into a comprehensive theoretical model (Simsek, 2009; Raisch et al, 2009). With studies coming from more and more research domains, the initially focused debate on organizational ambidexterity has become increasingly complex. The field would therefore benefit from a complete framework that integrates disparate themes and insights from prior research (Raisch & Birkinshaw, 2008).

To close this gap in existing research, we propose a conceptual model (see Figure 1-1) that describes the dynamic alignment of organizational configurations towards exploitation and exploration within its environmental and organizational context. The conceptual model is applied to a longitudinal field study of alignment patterns in the Central European insurance industry. In this dissertation, we build upon this conceptual model to explore the following research questions:

How relevant are ambidextrous organizational alignment patterns in today's business environments?

How are different organizational alignment patterns related to firm performance?

How is the performance of an organizational alignment pattern impacted by the external environment's moderating effect?

How is the performance of an organizational alignment pattern impacted by the internal environment's moderating effect?

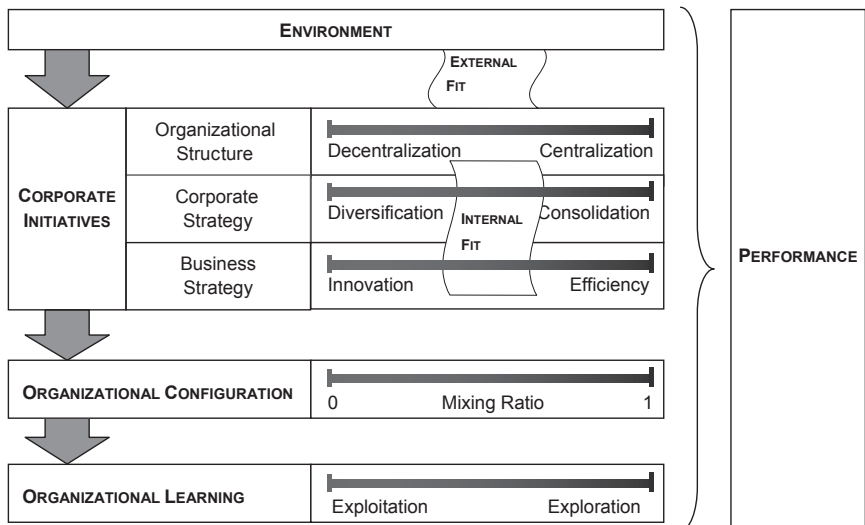


Figure 1-1: Conceptual Model

This cumulative dissertation, which is based on three independent papers, is organized as follows:

In *Paper 1*, we develop the theoretical groundwork for the proposed conceptual model by linking corporate initiatives in the fields of organizational structure,

corporate strategy, and business strategy to distinct organizational configurations, which promote either one-sided or balanced learning environments (March, 1991). Further we explore the relevance of different alignment patterns allowing for ambidexterity in today's business environments and investigate their respective performance effects.

Paper 2 addresses the external fit of an organization with its environment (e.g., Auh & Menguc, 2004). We link corporate initiatives - focused on aligning the organizational context with exploitative and explorative activities - to environmental munificence and firm performance. Then, we examine how firms “cycle” through periods of different alignment behaviours as a consequence of changing environmental conditions. We also investigate the influence of a firm's initial alignment on its adaptive moves and the performance effect of the adaptive moves' magnitudes.

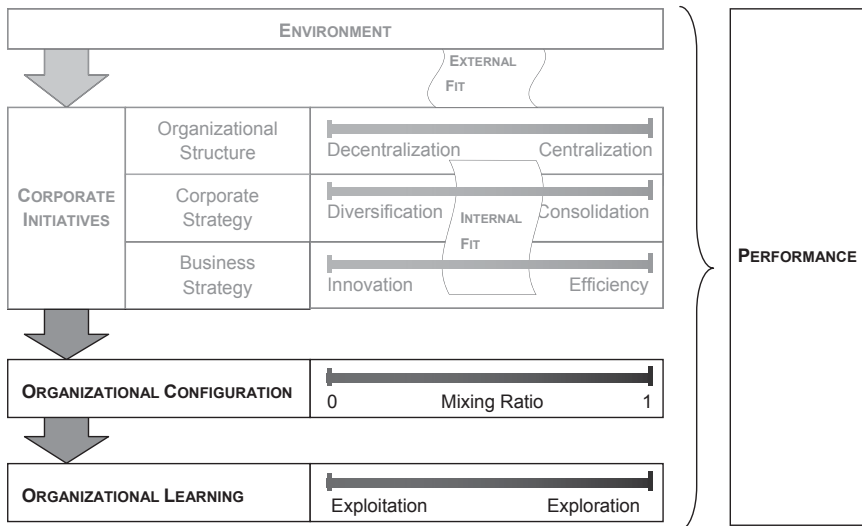
Paper 3 sheds light on the question of how organizational ambidexterity can be achieved internally and what performance outcomes may occur when applying different forms of organizational balancing. Compared to previous studies, by spanning two organizational levels, we are able to more fully reveal the activities to balance exploration and exploitation in an organization. We empirically test our assumption that organizational ambidexterity can be achieved through inter-level as well as intra-level balancing. Additionally, we find empirical support for differences in the frequency of organizational alignment moves between one-sided and ambidextrous firms.

In the *concluding chapter*, we focus on the managerial implications derived from our research. We present an in-depth case study of the Swiss insurer Helvetia to illustrate our findings. Our results indicate strong support for the relevance of ambidextrous designs in organizational reality. We show that different alignment patterns – one-sided and balanced – are complementary rather than mutually exclusive and that both support the notion of organizational ambidexterity. Organizational Ambidexterity emerges as a dynamic capability, rather than a simple question of the right static alignment.

While substantially extending the theoretical and empirical foundations of the organizational ambidexterity concept, this dissertation also bears important insights for practitioners: Successful organizational development is neither based on the strict pursuit of static long-term objectives, nor on constant readjustments to small shifts in the environment. Managers must rather strive towards a long-term vision, while remaining attentive to short-term alterations in the environmental conditions that they face. This dissertation provides theoretical concepts and practical illustrations that help practitioners to better understand and manage a dynamic balance in their long-term organizational alignment activities.

PAPER 1

EXPLORATIVE AND EXPLOITATIVE LEARNING: ORGANIZATIONAL ALIGNMENT PATTERNS IN THE EUROPEAN INSURANCE INDUSTRY



Explorative and Exploitative Learning: Organizational Alignment Patterns in the European Insurance Industry

Abstract

This longitudinal study explores the alignment patterns of 79 organizations in the European insurance industry. We conduct an extensive literature review to establish a multilevel perspective of learning activities directed towards explorative and exploitative learning behavior. Applying the quantitative phase analysis method, we identify 4 distinct alignment patterns: one-sided exploitation, one-sided exploration, static ambidexterity and dynamic ambidexterity.

While we find limited support for a balanced alignment behavior's superior performance outcome, we argue that a better understanding of the external and internal antecedents and moderators is needed to fully capture organizational balancing's potentially beneficial effects. These findings provide important avenues for future research on organizational alignment and build the foundation for exploring the antecedents and moderators of organizational alignment in the subsequent Papers (2 and 3) of this cumulative dissertation.

Keywords: *Ambidexterity, Exploitation, Exploration, Organizational Alignment, Organizational Learning*

Medio tutissimus ibis.

(Ovid)

2. Explorative and Exploitative Learning: Organizational Alignment Patterns in the European Insurance Industry

2.1. Introduction

Probst & Raisch (2005) found that competing successfully in today's market environments, while simultaneously creating strategic options for the future, is the most challenging task for established organizations. Managers are in a constant quest for balancing and rebalancing their attention to these dual requirements. If organizations are too strongly aligned towards either exploiting existing opportunities for short-term profitability or exploring new approaches for long-term viability, there is an increasing risk of organizational crisis (Levinthal & March, 1993). Hence, recent studies have recommended a more balanced, so-called "ambidextrous", alignment (Gibson & Birkinshaw, 2004; He & Wong, 2004).

Many of the most spectacular collapses in corporate history can be linked to failures in effectively aligning organizations to explorative and exploitative learning (March, 1991). Examples include the airline Swissair Group and the retailer Kmart. In 2002, the history of Swissair Group, one of the world's most admired flag carriers' parent, came to an abrupt end. In the late eighties, Swissair became known as the "Flying Bank" because of the huge liquidity and enormous hidden assets that the company had on its books. Following the industry deregulation in the nineties, the company initiated the so-called "Hunter strategy" aiming at the formation of a pan-European airline network through the acquisition of stakes in a dozen of small, often loss-making European carriers. The acquisition spree led to a major cash flow crisis, which forced the company out of business (Rahnema, Longstaff, & Mendez, 2002). Conversely, the US retailer Kmart ran into difficulties, when it relied heavily on past accomplishments, failing to create future opportunities. The company from Troy, Michigan, was one of the most successful chains of discount department stores in the seventies and eighties.

However, Kmart was falling behind competitors such as Wal-Mart in the 1990. While the competitors invested heavily into computer technology to manage their supply chains, Kmart continued to rely on its outdated equipment. Kmart stores were considered old-fashioned and in decaying condition, which resulted in a continuously deteriorating brand image and ultimately, the company's bankruptcy in 2002 (Noe, 1998).

The Swissair example illustrates the downward circle of a company overly focused on unrewarding exploration (Levinthal & March, 1993). Financial resources and managerial attention are excessively shifted towards experimentation, change, and variation without gaining adequate rewards from exploitation (Volberda & Lewin, 2003). Conversely, Kmart exhibits high convergence of its activities and develops specialized competencies, that easily turn into rigidities, when the competitive landscape changes (Leonard-Barton, 1992). The company sacrifices its future viability by neglecting exploration-oriented activities, which it considers less attractive and rewarding than the short-term focus on cost efficiency (Ahuja & Lampert, 2001).

These examples lead to some crucial questions for management research: *How can managers actively align structures and strategies for organizational learning allowing for both, exploitative and explorative learning? And how are those different organizational alignment patterns for explorative and exploitative learning related to organizational evolution and firm performance?* A couple of recent studies in the strategy and organization theory domains show the relevance of maintaining an appropriate balance between exploration and exploitation (e.g., Jansen et al., 2008; Smith & Tushman, 2005; Lubatkin et al., 2006; Benner & Tushman, 2003; Adler et al., 1999). While there is growing evidence for the importance of effectively combining exploration and exploitation activities, we know much less about how organizations align their organization to balance exploration and exploitation (Gupta et al., 2006). Most studies employed a single variable to account for the organizational alignment, such as behavioral context (Gibson & Birkinshaw, 2004) or organizational structure (Benner & Tushman, 2003; Simsek, 2009). There is a need for more integrative studies, that encompass multiple levels of analysis (Jansen et al., 2005).

Another important shortcoming of contemporary research on organizational ambidexterity may be the lack of a longitudinal perspective that captures the dynamic interaction of exploration and exploitation over time. The dynamic capabilities perspective (Teece et al., 1997) may be a good starting-point to move beyond a solely cross-sectional perspective. It suggests that firms do not necessarily struggle to improve the magnitude of exploration and exploitation at the same time, but encounter difficulties when trying to achieve a dynamic balance between these activities (Simsek, 2009). A dynamic balance implies that organizations repeatedly shift the flexibility/efficiency tradeoff to adequately accentuate one or the other objective at one point in time (Adler et al. 1999). Managers thus have to find the right balance between stability and change combining static and dynamic elements of organizational activities (Raisch, 2006).

We address the above-mentioned shortcomings by exploring organizational alignment patterns over time and at multiple levels of analysis. An extensive literature review is conducted to capture learning activities leading towards explorative and exploitative learning behavior on multiple organizational levels. In response to a recent call by Raisch and Birkinshaw (2008), we develop an integrative model by synthesizing research from the fields of organization structure, corporate strategy, and business strategy. We extend existing theory by analyzing the organizational alignment activities of 79 companies in the European insurance industry over a ten-year period. The findings suggest that four distinct alignment patterns can be observed: one-sided exploitation, one-sided exploration, static ambidexterity, and dynamic ambidexterity. While there is some initial support for a balanced alignment behavior's superior performance outcome, we argue that further research into the external and internal antecedents and moderators will be necessary to fully understand the potentially beneficial effects of organizational balancing. Hence, building upon this paper's findings, we will further explore the antecedents and moderators of organizational alignment and the respective performance effects in the subsequent papers (2 and 3) of this cumulative dissertation.

2.2. Theoretical Background

2.2.1. Organizational Alignment to Exploitative and Explorative Learning

Organizational learning theory provides some evidence on the activities that support explorative and exploitative learning. On the one hand, organizations need to learn through experience, which leads to the refinement of their current capabilities. On the other hand, they have to create variety through innovation and risk-taking (Jansen, 2006). Organizations face a crucial trade-off of allocating their resources to the exploitation of existing activities and investing them for the exploration of new practices (Lewin & Volberda, 1999; March, 1991).

Organizations that are aligned towards *exploitation* refine their capabilities by focusing on current activities in existing domains (Holmqvist, 2004; Danneels, 2002). They strive to improve established organizational designs, while increasing the efficiency of their existing product channels (Abernathy & Clark, 1985). These companies carefully select specific activities, execute them well and produce economically (March, 1991). Conversely, organizations that are aligned towards *exploration* increase their variety through experimentation, risk-taking, and flexibility (March, 1991). This involves the active search for new ways of doing things through novel approaches in the technology, product, process, and business domains (McGrath, 2001). Innovations initiated by exploration are radical and designed to widen the customer base and create new markets (Benner & Tushman, 2003; Danneels, 2002).

Exploitation and exploration were found to require fundamentally different *organizational contexts* (He & Wong, 2004). We identify organization structure, corporate strategy and business strategy as the key levers in a firm's organizational alignment towards explorative or exploitative learning (Benner & Tushman, 2003; Tushman & Romanelli, 1985).

2.2.2. Organizational Context for Exploitation

The following paragraphs specify corporate initiatives for an organizational alignment towards exploitation on the *organizational structure*, the *corporate strategy*, and the *business strategy* levels.

From an *organizational structure* perspective, exploitation has been related to centralized structures (Ancona et al., 2001). In centralized structures, higher degrees of coordination by fewer focal points of power are installed (Puranam, Singh, & Zollo, 2006), which was found to foster efficiency, synergies and productivity (Mintzberg, 1979). Centralization gives rise to organizational rigidities that provide the stability required for exploitation (Benner & Tushman, 2003; Brown & Eisenhardt, 1998). Burns & Stalker (1961), for example, describe mechanistic organizational structures as particularly conducive to exploitative activities under stable conditions.

On the *corporate strategy* level, Burgelman (1991, 2002) linked induced strategic initiatives to exploitation. These initiatives are dedicated to activities within the firm's current product-market scope. Similarly, the resource-based perspective on strategy argues that firms should pursue a narrowly focused core business strategy that allows them to better explore their existing resources (Montgomery & Wernerfelt, 1988; Pettus, 2001; Prahalad & Bettis, 1986). More recently, researchers suggest to combine a focus on the existing core business with limited expansion into closely related areas (Burgelman, 1991; Helfat & Raubitschek, 2000; Vermeulen & Barkema, 2001; Zook, 2004). This approach enables firms to use existing resources as "stepping stones" towards new markets (Wernerfelt, 1984).

In *business strategy*, an orientation towards efficiency has been related to exploitation (Adler et al, 1999; March, 1991). Porter (1980), for example, defined efficiency-oriented behavior as a generic cost-leadership strategy. In their exploratory work on different strategy types, Miles and Snow (1978) defined efficiency-oriented firms as defenders of their current position, facing a stable environmental context.

2.2.3. Organizational Context for Exploration

The following paragraphs specify corporate initiatives for an organizational alignment towards exploration on the *organizational structure*, the *corporate strategy*, and the *business strategy* levels.

In *organizational structure*, exploration has been related to decentralized structures (Brown & Eisenhardt, 1998; Benner & Tushman, 2003). In decentralized structures, autonomy is strong and many focal points of power compete for influence (Puranam, Singh, & Zollo, 2006), which creates organic, flexible, and adaptive systems (Mintzberg, 1979). Volberda (1996) states that flexibility is of a paradoxical nature and suggests multiple organizational forms, that represent different ways towards flexibility, all of them adhering to some sort of decentralization.

From a *corporate strategy* perspective, Burgelman (1991, 2002) found that autonomous strategic initiatives lead to exploration. These initiatives are dedicated to exploring new strategic opportunities outside the organization's current strategic scope. Several scholars argued that firms should promote explorative learning by entering a variety of new product and geographical environments (Barkema & Vermeulen, 1998; Miller & Chen, 1996). Hamel and Prahalad (1993) found that stretch in organizations is of particular importance, which refers to the creation of misfit between the environment and the firm in order to purposely create a gap.

On the *business strategy* level, innovation-oriented strategies have been related to exploration (Adler et al., 1999; March, 1991). Porter (1980) describes exploration-oriented strategic behaviour on the business-level as differentiation (Ebben & Johnson, 2005). In their well-recognized typology, Miles and Snow (1978) designate the term "prospectors" to companies focusing on flexibility in order to embrace change and opportunities.

2.2.4. Alignment Patterns for Organizational Learning

Literature provides four distinct patterns of how organizations are able to align for exploitative, explorative or balanced learning: *one-sided exploitation*, *one-sided exploration*, *static ambidexterity*, and *dynamic ambidexterity*.

One-sided Exploitation. Exploitation aims at extending existing knowledge (Auh & Menguc, 2004) using refinement, routinization, production, and implementation of knowledge. It generates relatively certain and immediate returns as it draws on knowledge that is already familiar to an organization (Tushman & O'Reilly, 2007). Expected returns from exploration usually take longer to materialize than expected returns from exploitation (Levinthal & March, 1993). Hence, research found that organizations tend to exploit more often than they explore (Hannan & Freeman, 1984; Tushman & Romanelli, 1985). Because of their nature as experiential learning systems, organizations tend to engage in activities which they are competent in (Gomez, 1981). Learning is path-dependent, which makes learning from known activities more efficient in the short run than learning from scratch (Cohen & Levinthal, 1990). Porter (1980) argues that firms have to choose between generic types of strategy. Firms that pursue hybrid strategies risk becoming “stuck in the middle”, which is linked to poor performance. Ebben and Johnson (2005) find supporting evidence that firms with a one-sided focus outperform peers that pursue a mixed or hybrid strategy.

Tushman and O'Reilly (2007), however, argue that a one-sided approach to exploitation will almost always move attention and resources away from the high-varying exploration. This leads to phenomena such as organizational inertia (Hannan & Freeman, 1984; Tushman & Romanelli, 1985) or competency traps (Levinthal & March, 1993). Progressing conformity, which decreases flexibility, discourages firms from development in a changing market environment (Miller, 1993; Auh & Menguc, 2005). This weakens the firm's adaption capabilities when realignment is required (Levitt & March, 1988), which may lead to missed opportunities and the overlooking of emerging threats (Vermeulen & Barkema, 2001).

One-sided Exploration. Engagement in exploration ensures the future viability of the firm (Levinthal & March, 1993). Only organizations, that are adaptive in respect of their customers' emerging needs and the thus developing markets can survive in the long run (Benner & Tushman, 2003; Danneels, 2002). Due to short-term oriented incentive systems in today's business environments, exploitative behaviour is often over-emphasized by the individual, which further explains the need for explorative alignment activities (Levinthal & March, 1993). Pure differentiation strategies can lead to long-term competitive advantages, as it allows firms to create niches and serve markets in specific domains (Porter, 1980). Consistency theory argues that in order to reach high levels of performance, organizations should create systems with high internal fit, which are built through the integration of multiple organizational domains (Siggelkow & Levinthal, 2003; Dess, Gupta, Hennart, & Hill, 1995). Successful companies select from a limited set of configurations, one of them the full alignment to explorative learning (Meyer, Tsui, & Hinings, 1993).

On the other hand, excessive exploration can lead to the abandonment of value-creating processes and the emergence of cost-inefficiencies (He & Wong, 2004; Vermeulen & Barkema, 2001). Well-established processes are disrupted by the exploration activities, which can have the consequence that the firm fails to receive the expected financial returns (Levinthal & March, 1993). When exploration drives out exploitation, organizations risk to get caught in a "failure trap" (Siggelkov & Rivkin, 2006). The vicious circle starts with failure, which leads to further search and change, which leads to failure, additional search and change, and so on. Those firms tend to rely more and more on exploration, while they neglect their current businesses' demands (Levinthal & March, 1993).

Static Ambidexterity. With intensifying competition and a higher pace of environmental change, organizations increasingly need to become capable of simultaneously pursuing exploration and exploitation (Volberda, 1998). Firms are increasingly facing tensions that require the exploitation of existing capabilities and the exploration of new competencies at the same time (Floyd & Lane, 2000). Organizations tend towards seeking stability in order to minimize uncertainty and reduce their transaction costs. At the same time, they seek the ability to adapt flexibly to environmental change (Leana & Barry, 2000). Eisenhardt (2000) made

the case for paradoxical thinking (such as between innovation and efficiency, collaboration and competition, or new and old) in management research. Rather than compromising between the two, firms should find the right mix for a given situation.

So called *ambidextrous* organizations combine multiple inconsistent architectures to be able to operate for both short-term performance and long-term viability at the same time (Duncan, 1976; Tushman & O'Reilly, 1996; Bradach, 1997). This can be achieved by simultaneously employing different orientations in different parts of an organization (Poole & Van de Veen, 1986). Different directions are triggered in organizational domains, such as location, level or function (Volberda, 1998). There has also been evidence for the simultaneous balancing of exploration and exploitation at the same organizational level (Gibson & Birkinshaw, 2004). By developing a collective organizational context, those organization manage to provide a breeding ground for ambidextrous learning behaviour.

Organizational success is based on engagement in sufficient exploitation to ensure an organization's current viability and engagement in sufficient exploration to ensure its future viability (Levinthal & March, 1993). It has therefore been claimed that an appropriate balance between exploitation and exploration is of major importance for an organization's financial success (Tushman & O'Reilly, 1996). He and Wong (2004) found that ambidextrous firms show higher levels of sales growth. Masini, Zollo and van Wassenhove (2004) found empirical support that a high degree of ambidexterity correlates positively with bottom-line performance. Internal misfit, when aligning for ambidexterity, however, may harm the exchange of knowledge, the creation of synergies, and, ultimately, firm efficiency (Hansen, 2002; Kostova & Zaheer, 1999). Hence, there is also evidence, that mixed elements of strategy lead to lower performance (Miller & Friesen, 1986; Doty, Glick, & Huber, 1993).

Dynamic Ambidexterity. Another potential way of creating an *ambidextrous* alignment within an organization is to employ a *dynamic* rather than a static approach. Organizations cycle between activities with strategy goals attributable to exploitation and exploration over time (Eisenhardt & Brown, 1998; Nickerson

& Zenger, 2002: 547; Siggelkow & Levinthal, 2003: 650). Efficiency and flexibility are achieved sequentially through alternating structures (Cummings, 1995; Nickerson & Zenger, 2002). Some empirical studies found a continuous oscillation between centralization and decentralization (Carnall, 1990; Eccles & Nohria, 1992; McKelvey, 1997). Duncan (1976) argued for a temporal separation of alignment to exploration and alignment to exploitation over time. The sequential pursuit of exploration and exploitation may permit to alleviate some resource and administrative constraints of a simultaneous approach (Gupta et al., 2006; Simsek et al., 2009). In their study of how environmental change affects corporate alignment, Tushman and Anderson (1986) identified periods of incremental change, punctuated by discontinuous change, which involve radically new ways of doing business for the affected organizations.

Although the different alignment patterns of one-sided exploitation, one-sided exploration, static ambidexterity, and dynamic ambidexterity have been identified in previous cross-sectional or agent-based simulation studies (Nickerson & Zenger, 2002), research lacks longitudinal studies that compare the different alignment alternatives, explore their occurrence, and study their performance effects. We address this gap in this paper by employing an explorative research design to identify different alignment patterns. A subsequent quantitative regression analysis yields the relevant performance differences between alternative alignment patterns.

2.3. Methods

2.3.1. Research Design

We relied upon a panel research design (Menard, 2008) focusing on the European insurance sector to study how firms align their organizations to diverging demands. A single industry study was chosen, to avoid sample heterogeneity (Snow & Hambrick, 1980; Frederickson & Iaquinto, 1989) and automatically control for inter-industry effects (Yeoh & Roth, 1999).

We collected longitudinal data for a ten-year period (1995 to 2004). According to Pettigrew (1985), ten year panel data can be considered appropriate for exploring change in organizational strategy and structure. A further temporal extension would have been difficult due to the poor availability of company reports and financial data for earlier periods.

The European insurance sector has been selected as an adequate setting for this study as it encompasses a high number of companies of considerable size. Compared to other industries, the sector is not yet consolidated to a level that would hinder our research. Insurance companies are in general not involved in businesses outside the financial services sector, which increases the comparability of different firms within this industry (Cummings & Weiss, 2004). Arising deregulation, capital markets' volatility, demographic change, and the reconstruction of social security systems led to major environmental upheaval from 1995 to 2004 (Enz, 2005). The insurance industry should thus provide a promising background for our study of organizational alignment patterns and balancing activities.

We selected 1995 as the starting year due to a massive pan-European deregulation step, that had occurred in 1994. The deregulation of the legislative environment seriously affected the industry, causing a stronger focus on customer service, extensive product enlargement and innovation. Deregulation intensified competition in the national markets, since market entry of foreign companies was no longer hindered by restrictive laws (Ackermann et al., 2005). Insurance

companies increasingly entered new countries and business segments. An expression of this orientation towards diversification was the bancassurance strategy, which combined insurance products with banking services (Bergendahl, 1995). Insurance companies formed cooperations with banks and engaged in M&A activity (Enz, 2005). With booming investment markets, asset management was an important lever for firm performance, which often allowed firms to conceal weak operating performance (Luippold et al., 2003).

The market development was sharply reversed in 2000. A huge downturn on the stock markets with a resulting loss in firm equity required the insurers to refocus on their core competencies and to manage risk more restrictively (Luippold et al., 2003). Due to the economic downturn, consumers became also more price-sensitive (Ackermann et al., 2005). Strict cost control became the most important goal (Enz, 2005).

2.3.2. Sample and Data Collection

Selecting the European insurance industry as the arena for our empirical research, we constructed an area sample defined by three dimensions (Churchill, 1999). To be included, companies needed (1) a primary SIC code equal to life insurance (6311), non-life insurance (6331), or reinsurance (6371); (2) headquarters located in Austria, Germany, and Switzerland (region 1), the UK and Ireland (region 2), or France and Benelux (region 3), and (3) premiums of at least €100 million by 2005. The full area sample included 98 insurance companies, which were contacted and asked to provide a full set of company reports for the period under investigation.

The full list of companies had been compiled from the Thomson One Banker (2005) database and was cross-checked using various other sources, such as discussions with insurance industry experts, industry studies, and magazine surveys (e.g., European Insurance Digest, A.M. Best Europe). A company that was fully consolidated with another company was excluded from the list. In line with Miller (1993), we only considered firms, that existed during the whole period. While this introduced a survivor-bias, it allowed us to explore different patterns over a full ten-year period. We received a complete set of annual reports

from 79 companies or 81% of the population. The results reported in this paper are based on data from these 79 insurance companies.

We collected panel data from archival sources - including company reports and company information databases - to describe firms' alignment activities between 1995 and 2004. The use of archival data seems appropriate as researchers have questioned the reliability of informants' retrospective accounts (Golden, 1992; Miller, Cardinal, & Glick, 1997). In previous studies, annual reports have been used to assess corporate strategy and structure (Lant et al., 1992). Strategic changes are very important for the future development of an organization and are therefore described in detailed accounts in companies' reports (Barr & Huff, 1997).

We used content analysis to code events from the reports (Babbie, 2005). We summarized the relevant data for each company in a respective profile, which provides the basis for the attribution of a company to one of the specific alignment patterns. Very few empirical studies have yet been done in the field of learning processes under different boundary conditions. We used the legitimate empirical method of mapping firms within an industry segment according to their configurations and comparing the relative performances of the resulting subgroups (Ketchen et al., 1993). Our method therefore is explorative, using a conceptual model to interpret the results.

2.3.3. Measurements

We used corporate alignment initiatives that allow an organization to shift its balance between exploitative and explorative alignment as the measurement for assigning organizations to different alignment patterns (March, 1991). Contrary to process measures, these corporate alignment activities are directly affected by managerial decisions. We used return on equity (ROE) as a well-established performance measure, to capture and compare the different alignment patterns' outcome. We further used several control variables to account for unwanted confounding effects.

Organizational Alignment. We captured corporate alignment activities targeted towards greater exploitation or exploration at these distinct organizational levels: corporate strategy, corporate structure and business strategy. *Exploitation*-oriented alignment encompasses consolidation, centralization, and efficiency moves, while *exploration* oriented alignment refers to diversification, decentralization, and innovation moves. Corporate managers use these alignment moves to shift the balance between exploitative and explorative learning.

Exploitation moves are measured as follows: *Consolidation* moves, which are indicated by the following: (1) withdrawal from a country (Webb & Pettigrew, 1999: 605); (2) withdrawal from a business segment (Webb & Pettigrew, 1999: 605); (3) acquisitions or new ventures that strengthen current business segments (Vermeulen & Barkema, 2001: 459); and (4) consolidation-related large scale expansions (Vermeulen & Barkema: 2001: 459). Withdrawal from a country or a business segment represent a reduction of the scope, which allows for refocusing on the firm's core competencies (e.g., Müller-Stewens & Lechner, 2003) The latter two moves reinforce the accent on existing knowledge (Vermeulen & Barkema, 2001: 459).

Centralization moves, which are measured by the following: (1) Creation of a new functional role at the management board (Tushman & Rosenkopf, 1996: 952); (2) creation of a new operational role at the management board; (3) merging of divisions into larger units (Tushman & Rosenkopf, 1996: 952); and (4) the creation of a centralized corporate center. Moves towards greater centralization are corporate initiatives that lead to a higher concentration of power at the top. Consequently, decisions are taken in a more centralized way (Nickerson & Zenger, 2002: 554).

Efficiency moves are indicated by the following: (1) large-scale cost cutting or efficiency-increasing initiatives affecting the whole company; (2) exploitation keywords mentioned in the letter to shareholders (e.g., Hoffmann, 1997); (3) a significant reduction of the expense ratio; and (4) significant growth in the quotient premiums divided by employees. The expense ratio is an insurance-specific measure that indicates the efficiency in the operating business. It is

measured as the operating expenses as a percentage of premiums earned. Growth is the quotient premiums divided by employees representing an increase in operating efficiency, as more premiums are generated per employee.

Exploration moves are measured as follows: *Diversification* moves are indicated by the following: (1) entry into a new country market (Vermeulen & Barkema, 2001: 457; Webb & Pettigrew, 1999: 606); (2) entry into a new business segment (Vermeulen & Barkema, 2001: 457; Webb & Pettigrew, 1999: 605); (3) diversification-related acquisitions or new ventures (Hitt, Harrison, Ireland, & Best, 1991; Webb & Pettigrew, 1999: 605); and (4) diversification-related large-scale expansions (Hitt, Harrison, Ireland, & Best, 1998). The latter two represent acquisitions of companies that are related to an entry into a new country or business segment.

Decentralization moves, which are measured by the following: (1) abolishment of a functional role at the management board (Tushman & Rosenkopf, 1996: 952); (2) abolishment of a central operating role at the management board; (3) split of divisions into smaller units (Tushman & Rosenkopf, 1996: 952); and (4) dissolution of a centralized corporate center.

Innovation moves, which are measured by the following: (1) large-scale growth or innovation initiative affecting the whole company (He & Wong, 2004); (2) exploration key words mentioned in the letter to shareholders (e.g., Hoffmann, 1997). (3) significant increase in the quotient acquisition expenses divided by premium growth; and (4) significant increase in premiums as an indicator for product attractiveness. The quotient acquisition expenses divided by premium growth indicates the importance attached to the sales force and other customer functions.

Performance. In line with Ginsberg and Venkatraman (1985) we measure organizational performance as the return on equity. Porter's (1973) study about strategic groups, for example used the ROE to measure the performance of strategic groups. Since then, ROE has become a widely accepted measure to

analyze intra-industry performance differences (Ketchen et al., 1993). We computed the ROE as the net income divided by the average equity, hence the average of the equity in the beginning and the end of the year. As we are more interested in a firm's profitability relative to the industry than the absolute value, we computed the average performance of our sample and subtracted it from every ROE. This provided us with the market adjusted ROE for each insurance company that was subsequently used as performance indicator/measure in our study (Tushman and Rosenkopf, 1996).

Control variables. We use the number of employees (Boeker, 1989), the company's age (Wischnevsky, 2004), and the primary SIC code (Tushman & Anderson, 1986) as control variables to account for unwanted confounding effects.

2.4. Data Analysis and Results

The explorative data analysis was conducted in a two-step approach. First, we used a combination of qualitative and quantitative procedures to identify the different alignment patterns. Second, we examined the different alignment patterns' respective performance effects using descriptive statistics as well as regression analyses.

2.4.1. Identification of Organizational Alignment Patterns

We collected the data for the independent, dependent, and control variables from the annual reports. The data was entered in a standardized sheet for every company and every year. Company profiles were compiled with the relevant information for the entire ten-year period, containing all corporate initiatives, the performance data and additional firm characteristics. In line with Webb and Pettigrew (1999), we recorded whether an event was accomplished or not, but not to which extent an organization conducted the movements. Hence, binary coding was used by capturing individual moves in separate dummy variables (Mishina et al., 2004). An event was plotted, when it started to influence organizational alignment, since we were more interested in the development and the change of the organizations than in the current state. This was approximated by the year of its implementation. Following Webb and Pettigrew (1999), we colour-coded and mapped the events to allow for the visual identification of distinct alignment patterns.

To compare each insurance companies' relative cross-sectional orientation for a given year, we created linear additive profiles of each firm and calculated mixing ratios, which indicate the percentage of exploitation moves in relation to the overall number of initiatives (Massini, Lewin, Numagami, & Pettigrew, 2002). The range of values goes from 0 to 1 and is continuously distributed. This can be mathematically stated as follows:

$$\text{Mixing Ratio} = \text{Moves for exploitation} / \text{Moves for exploitation and exploration}$$

In line with the method to identify processual patterns by Van de Veen and Poole (2000), we used phase analysis to identify the different alignment patterns. Phases of coherent activity were identified that occur across the different companies. In our study, we identified patterns of prolonged exploitative, explorative, and balanced alignment. Additionally, we used variability of the mixing ratio to account for the dynamics of alignment over time. Variability analysis is a widely accepted approach to identify frequency patterns of organizational activity (Laamanen & Keil, 2008; Vermeulen & Barkema, 2002).

The identification of different alignment patterns was conducted in a four-step sequential manner: In the first step, we analyzed the distribution of mixing ratios for each year and attributed every company to a year-specific subgroup: exploration (firms with mixing ratios in the first quartile), balanced (firms with mixing ratios in the second and third quartile), exploitation (firms with a mixing ratio in the fourth quartile). Secondly, we attributed the respective alignment values 3 for exploitative behavior, 2 for balanced behavior, and 1 for explorative behavior for every year under consideration. In a third step, we considered those firms as consistently aligned towards exploitation, which showed a mean alignment value in the upper tercile without any occurrence of the alignment value 1 over the 10 years period. Firms with a mean alignment value in the middle tercile were considered as balanced and firms with a mean alignment value in the lower tercile without any occurrence of the value 3 were attributed to the group of firms consistently aligned towards exploitation. Fourthly, we used the variability of the yearly alignment to disguise companies balancing dynamically from firms that had a static balance over time. Firms, whose variability showed values in the upper half, were added to the group of dynamic balancers, while firms with variability values in the lower half were considered as static balancers. Static balancers further had to show more than 5 out of 10 alignment values of 2 to be included in the group. Firms, which did not match any of these criteria, were excluded from further analysis.

This approach allowed us to attribute a specific alignment pattern to 62 of 79 firms. We found 19 organizations with a *one-sided alignment to exploitation*, 15 organizations with a *one-sided alignment to exploration*, 13 firms that aligned to *static ambidexterity*, and 15 firms that showed *dynamic ambidexterity*. *One-sided*

exploitators showed a mean mixing ratio over the ten-year period of 0.74, *statically ambidextrous* firms of 0.54, the *dynamically ambidextrous* firms' mean mixing ratio was 0.47 and the *one-sided explorators*' was 0.31. The explorative analysis of our sample shows, that different alignment behaviors indeed exist and are widely applied. *Table 2-1* compiles these findings.

Alignment Pattern	Abs. #	Rel. #	Mean MR	S.D. MR
1. One-Sided Exploitation	19	31%	.74	.06
2. One-Sided Exploration	15	24%	.31	.09
3. Static Ambidexterity	13	21%	.54	.03
4. Dynamic Ambidexterity	15	24%	.47	.04

Table 2-1: Compilation of Alignment Patterns' Descriptive Statistics

2.4.2. Performance Effects of Different Alignment Patterns

The second part of our explorative analysis of organizational alignment patterns investigates their performance impact. First, we used descriptive statistics to compare one-sided alignment's standardized performance outcomes with those of balanced firms. Then we analyzed the standardized performance means of all 4 different alignment patterns. *Table 2-2* shows the results.

Alignment Pattern	Mean Perf.	S.D. Perf.	Min. Value	Max. Value
1. One-Sided Alignment Patterns	-.44	5.53	-11.44	10.35
2. Balanced Alignment Patterns	1.78	5.03	-5.31	16.71
1. One-Sided Exploitation	-2.03	5.29	-11.44	10.35
2. One-Sided Exploration	1.58	5.33	-8.4	10.07
3. Static Ambidexterity	1.87	5.39	-4.52	16.71
4. Dynamic Ambidexterity	1.71	4.89	-5.31	11.45

Table 2-2: Descriptive Statistics of Performance Effects

The general comparison shows superior performance of balanced alignment patterns, if compared to one-sided alignment patterns. While the one-sided

standardized mean performance shows a value of -0.44, balanced alignment's mean standardized performance is 1.78. Both alignment options show similar standard deviations.

The more fine-grained examination of all four alignment patterns reveals the main root cause of the one-sided alignment's poor performance outcomes. One-sided exploitation shows by far the worst performance with a mean value of standardized performance at -2.03, while the others alignment options' values lie between 1.58 and 1.87. However, the balanced alignment patterns continue to show the highest mean values of standardized performance with 1.87 for static ambidexterity and 1.71 for dynamic ambidexterity. One-sided exploration follows with a mean value of standardized performance of 1.58.

Additionally, we applied ordinary least squares regression analysis to test the different alignment patterns' performance effects. We included the number of employees, the company age, and SIC code as controls in our regression. No variable showed any significant effect on performance. Additionally, in order to avoid multicollinearity effects that may arise due to over-identification of the dummy variables, we included as an additional control the firms that could not be allocated to a specific group as an additional control (Neter et al., 1985). *Table 2-3* indicates the regression results with general alignment patterns including dummy variables for one-sided alignment and balanced alignment.

Alignment Patterns Effects (Dependent Variable: Mean Standardized ROE)	Unstandardized Coefficients		t-Value	p-Value
	β	Std. Error		
Constant	-.131	.834	-.05	.963
One-Sided Alignment Patterns	-.545	.894	-.61	.545
Balanced Alignment Patterns	1.816	.986	1.84*	.071

Table 2-3: Regression Analysis of the General Alignment Patterns

Table 2-4 lists the results of the regression analysis incorporating dummies for all four alignment patterns.

Alignment Patterns Effects (Dependent Variable: Mean Standardized ROE)	Unstandardized Coefficients		t-Value	p-Value
	β	Std. Error		
Constant	.113	.692	-.17	.864
One-Sided Exploitation	-2.236	1.171	-1.91*	.061
One-Sided Exploration	1.580	1.313	1.20	.234
Static Ambidexterity	2.042	1.413	1.44	.154
Dynamic Ambidexterity	1.846	1.316	1.40	.166

Table 2-4: Regression Analysis of the Detailed Alignment Patterns

The regression analyses' results support the first impressions of the descriptive statistics. In the general regression, the dummy variable for balanced alignment patterns shows a positive denominator with a significance on the 10 % level. Conversely, a one-sided alignment shows no significant effect. Additionally, we conducted a Wald-test to estimate for the equality of coefficients (Liao, 2004). It compares the residuals of the original with those of a registered regression, where all coefficients are assumed to be the same. The resulting F-Statistics indicates whether the null-hypothesis of all coefficients being equal should be rejected. With an F-value of 2.96 and p-value of 0.09, this method confirms the significance on the 10 % level.

The examination, which encompasses the detailed alignment patterns, shows a significantly negative effect of one-sided exploitation (10 % level). The other alignment patterns, while showing positive denominators, have no significant impact on performance. Wald-test's F-value of 2.60 and p-value of 0.061 indicate a significance almost on a level of 5 %.

2.5. Discussion

2.5.1. Contributions

Organization theory and organizational learning literatures have argued in support of a simultaneous pursuit of exploration and exploitation objectives (Jansen, 2006). Prior studies developed a range of alternative organizational design options (e.g., Raisch, 2006; Nickerson & Zenger, 2002), but lacked further empirical validation. Moreover, ambidexterity's link to performance has not been tested in relation to different organizational approaches to ambidexterity (e.g., He & Wong, 2004). Further, prior empirical studies suffered from a narrow scope, the use of a cross-sectional design and the static view on the phenomenon. In this explorative study, we aim at closing the current theoretical and empirical gap (Simsek et al., 2009) by integrating different ambidexterity concepts in a longitudinal research setting.

Our results indicate support for the substantiality of ambidextrous designs in organizational reality. Almost half of the organizations in our sample preferred them to the extreme archetypes of either a one-sided explorative or exploitative alignment. Our findings provide empirical evidence to the phenomenon of "cycling", which was previously investigated based on an agent-based modeling approach (Nickerson & Zenger, 2002). Dynamic balancing patterns, which pursue the goal of coping with potentially conflicting organizational demands dynamically are widely applied in our sample of European insurance firms.

In line with the mixed and inconsistent results of prior research (e.g., Atuahene-Gima, 2005; Lubatkin et al., 2006), we found somewhat conflicting results, when we linked the different organizational alignment patterns to performance outcomes. There is some evidence for the superiority of ambidextrous alignment patterns compared to one-sided alignment alternatives. However, more fine-grained analysis indicates that this effect is mostly based on a distinctively negative effect of a one-sided exploitative alignment. Further, both ambidextrous sub-patterns show more beneficial effects than one-sided exploration. Yet those correlations lack statistical significance. This observation could bring up serious concerns about the underlying causality. Is it truly the one-sided orientation to

exploitation that leads to poor results? Or is it the imminent pressure of deteriorating profitability which drives organizations towards exploitation, promising rather short-term performance effects and improving odds of short term survival?

2.5.2. Limitations and Further Research Avenues

This study provides important insights contributing to the integrated and dynamic understanding of balanced organizational alignment. Its limitations have two implications of fundamental relevance for organizational theory and practice alike:

First, organizational ambidexterity ought to be examined in a broader context. Its distinct shape and effects are not only determined at the organization level, but also on the interfirm and environmental level (Simsek, 2009). So far, research is lacking knowledge about how different contingencies affect organizational ambidexterity. Contingency theory argues that both the one-sided and balanced alignment patterns may be beneficial - albeit under varying environmental conditions (Donaldson, 2001). Additionally, there has been prior evidence of different alignment behavior in changing environmental conditions, depending on firms' initial organizational alignment (Zajak, 2000). Future studies thus are encouraged to integrate environmental antecedents and moderators into their models to gain further understanding of the phenomenon (Raisch & Birkinshaw, 2008). Paper 2 of this dissertation formally tests the performance effects of explorative, exploitative and balanced corporate alignment activities under varying environmental conditions.

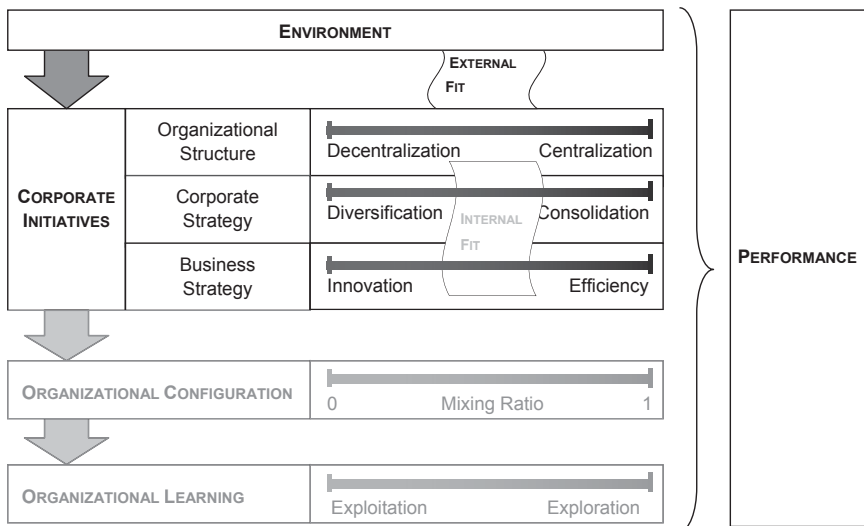
Second, in line with prior studies, we use a single-variable approach in this study to account for organizational alignment. It remains widely unexplored how organizations balance and synchronize exploitative and explorative activities internally. There are three broad approaches, which were proposed to enable ambidexterity (Raisch & Birkinshaw, 2008): *structural solutions* to cope with the conflicting organizational demands (Benner & Tushman, 2003; Tushman & O'Reilly, 1996), *contextual solutions* that allow ambidexterity to be pursued within a single unit (Gibson & Birkinshaw, 2004), and leadership-based solutions that are

based on the leaders' ability to integrate potentially conflicting organizational demands (Floyd & Lane, 2000). Research still lacks an integrated framework on how internal organizational antecedents interact and contribute to organizational performance. We thus encourage future studies to unlock this organizational black box. Paper 3 of this cumulative dissertation expands existing research by analyzing organizational alignment activities that encompass multiple organizational levels.

Although research on how to cope with the tensions of conflicting organizational demands is vital, the question of how to balance for organizational ambidexterity remains an "undertheorized, underconceptualized, and, therefore, poorly understood phenomenon" (Simsek, 2009). We strongly believe that the present study with its use of longitudinal research designs to integrate different alignment patterns creates a promising foundation for a more comprehensive and refined investigation of the ambidexterity phenomenon.

PAPER 2

SHAPING THE CONTEXT FOR LEARNING: CORPORATE ALIGNMENT INITIATIVES, ENVIRONMENTAL MUNIFICENCE, AND FIRM PERFORMANCE



Shaping the Context for Learning: Corporate Alignment Initiatives, Environmental Munificence, and Firm Performance

Abstract

In this study, we establish a set of hypotheses that link corporate initiatives (focused on aligning the organizational context with exploitative and explorative activities) to environmental conditions and firm performance. We argue that both one-sided and balanced alignment patterns may be beneficial – albeit under varying environmental conditions. Our findings further suggest that firms “cycle” through periods of different alignment behaviours in line with changing environmental conditions. As predicted, we find that firms with a stronger initial alignment towards exploration demonstrate more radical changes towards exploitation when environmental munificence declines. We also find these more radical realignments to negatively affect short-term performance.

Altogether, our findings reveal a fundamental dilemma that provides firms with a Hobson’s choice between two suboptimal alignment behaviours that could be called “flat slopes” and “steep slopes”. Companies with alignment patterns resembling a *flat slope* take a middle position between exploitation and exploration. They show only minor movements when environmental conditions change. While a prudent alignment with environmental change may help to minimise the risk, these companies may miss out on opportunities in times of high munificence. Conversely, firms with an alignment pattern akin to a *steep slope* focus on exploration in times of high munificence and radically move back towards a balanced orientation when munificence declines. Our research shows that this behaviour is rewarded by superior returns in times of high munificence. At the same time, however, we also found that these firms bear the additional cost (and risk) of planning and implementing large-scale change. Firms may thus have to select between the “race car” strategy (peak performance in the short run, but high risk when markets go down) and the “luxury sedan” strategy (relatively stable long-term performance).

Keywords: *Ambidexterity; Corporate Initiatives; Corporate Strategy; Environmental Munificence; Organizational Design; Organizational Learning*

The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew, and act anew. We must disenthrall ourselves, and then we shall save our country.

(Abraham Lincoln)

3. Shaping the Context for Learning: Corporate Alignment Initiatives, Environmental Munificence, and Firm Performance

3.1. Introduction

Organizational learning, defined as an organization's capability to create, disseminate, and act upon generated knowledge, has been regarded as a necessary dynamic capability for firms seeking to sustain a competitive advantage (Barney, 1991; Teece, Pisano, & Shuen, 1997). March (1991) suggested that "exploration" and "exploitation" are two fundamentally different learning activities between which organizations divide their attention and resources. Whereas exploitation refers to "learning gained via local search, experiential refinement, selection and reuse of existing routines", exploration refers to "learning gained through processes of converted variation, planned experimentation and play" (Baum, Li, & Usher, 2002: 768). While organizations' direct influence on these learning processes is limited, managers may align the organizational context to enable exploration and exploitation (Goold, Campbell, & Alexander, 1994; Lechner, 2006). Both learning types, however, were found to require fundamentally different structural and strategic contexts (He & Wong, 2004; Ancona, Goodman, Lawrence, & Tushman, 2001). There is a fundamental trade-off between aligning the organization to exploit existing competencies and exploring new capabilities (Floyd & Lane, 2000; Levinthal & March, 1993).

Management research has provided two contrary recommendations on how corporate leaders should position their organization with regard to exploitation and exploration (Adler, Goldoftas, & Levine, 1999; He & Wong, 2004). First, some scholars argue that organizations must choose between distinct organizational configurations that provide for either exploitation or exploration. From this perspective, mixed strategies and structures are expected to lead to inconsistent configurations and poor performance (Doty, Glick, & Huber, 1993; Ghemawat & Costa, 1993; Wernerfelt & Montgomery, 1988). Conversely, a second group of researchers argues that organizations need to be aligned to both exploitation and exploration (Burgelman, 2002; Levinthal & March, 1993; March, 1991). Superior performance is predicted for the "ambidextrous" firm that balances exploitation and exploration, rather than for those firms emphasizing one at the expense of the other (Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996). Empirical studies have shown mixed results for the different views, recommending either a one-sided (Dess & Davis, 1984; Ebben & Johnson, 2005) or a more balanced (Gibson & Birkinshaw, 2004; He & Wong, 2004) alignment.

Two shortcomings may partially explain the inconsistency of prior empirical findings. First, the validity of these studies may be harmed by their *generic* character. Prior studies have found that the effectiveness of an organization's strategic orientation or structural alignment depends on the environmental context (Burns & Stalker, 1961; Hambrick, 1983; Lawrence & Lorsch, 1967). Levinthal and March (1993) as well as Lewin, Long, and Carroll (1999) pointed to environmental aspects as important boundary conditions for analyzing both learning types' effect on firm performance. To date, however, there is little empirical evidence of a firm's organizational alignment being effective with regard to exploitation or exploration under different environmental conditions. This study analyzes these effects and provides a better understanding of how organizations adapt their strategies and structures in response to multiple contextual conditions. It suggests that different types of alignment may be related to superior performance under varying environmental contexts.

Second, the extant empirical research may be further restrained by its *static* character. Empirical evidence suggests that organizations are continuously aligning their strategies and structures over time. Previous studies have shown that

success is a question of dynamic alignment rather than static fit (e.g., Zajac, Kraatz, & Bresser, 2000). Given that environmental conditions often change, March (1991) suggests that returns from exploitation and exploration may also vary over time. Drawing upon these arguments, several scholars propose that organizations, in line with changing boundary conditions, dynamically adapt their strategies and structures to exploitation or exploration (e.g., Nickerson & Zenger, 2002; Siggelkow & Levinthal, 2003). While the dynamics in firms' alignment behaviors have been noted, much more remains to be understood about the specific change patterns and their effect on short- and long-term performance. This study analyzes how, depending on individual firm's initial configuration, their alignment behaviors vary in the face of the same environmental changes. We further argue that, depending on the extent of the change required, shifts in firms' organizational alignment might lead to different performance outcomes.

In summary, we build on organizational theory and strategic management studies to establish a set of hypotheses that link corporate initiatives (focused on aligning the organizational context in respect of different learning activities) to environmental conditions and firm performance. In contrast to previous studies, we consider concrete and manageable corporate alignment initiatives instead of hard-to-grasp learning behaviors. Furthermore, we integrate the environmental context into our analysis of how firm performance is affected by exploration- or exploitation-oriented corporate alignment activities. Finally, we strive for a quantitative and longitudinal field study to extend existing empirical studies' often static and narrow scope.

In the next section, we present the literature review and hypotheses. After describing our research method, we summarize the empirical findings from our analysis of 2,693 corporate alignment moves in 64 European insurance companies between 1995 and 2005. We conclude with a discussion of the results and derive propositions for future research.

3.2. Literature Review and Hypotheses

3.2.1. Exploration and Exploitation in Organizational Learning

Organizational learning has been defined as the production and reproduction of organizational rules that lead to behavioral stability or change (Levitt & March, 1988). Learning provides organizations with the possibility to generate competence, either in the form of exploration or in the form of exploitation (Levinthal & March, 1993). Exploration creates variety through search, discovery, novelty, innovation, and experimentation. Conversely, exploitation aims at extending existing knowledge by means of the refinement, routinization, production, and implementation of knowledge (March, 1991). Research has found that organizations tend to exploit more often than they explore, leading to phenomena such as organizational inertia (Hannan & Freeman, 1984; Tushman & Romanelli, 1985) or competency traps (Ahuja & Lampert, 2001; Leonard-Barton, 1992) that may be harmful to future success. On the other hand, excessive exploration can lead to the abandonment of value-creating processes and the emergence of cost inefficiencies (He & Wong, 2004; Volberda & Lewin, 2003). This notion is strengthened by the fact that the expected returns from exploration usually take longer to materialize than the expected returns from exploitation. Consequently, Levinthal and March (1993: 105) argue that firms' long-term survival and success depend on their ability to "engage in enough exploitation to ensure the organization's current viability and to engage in enough exploration to ensure future viability."

3.2.2. Corporate Alignment Activities for Exploitative and Explorative Learning

While corporate leaders have limited influence on the learning processes themselves, they can actively align the organizational context to promote organizational learning (Lechner, 2006: 25). Exploitation and exploration have been related to fundamentally different organizational contexts (Levinthal & March, 1993). Among the most discussed contextual factors at the corporate level are firm strategy and firm structure (e.g., Benner & Tushman, 2003; Brown &

Eisenhardt, 1998; Burgelman, 1991; He & Wong, 2004; Tushman & Romanelli, 1985).

Corporate Structure. Companies use various formal and informal coordination mechanisms to link and integrate different parts of the organization (e.g., Ghoshal, Korine, & Szulanski, 1994). The hierarchical structure represents the most important formal coordination mechanism. In line with prior research, we focus on a main element of a firm's hierarchical structure: centralization (Cardinal, 2001; Galbraith, 1973; Miller & Droge, 1986). Centralization refers to the degree to which decision-making power is concentrated in an organization (Aiken & Hage, 1968; Puranam, Singh, & Zollo, 2006). Previous research has suggested that centralization supports exploitative learning (Cardinal, 2001; Jansen, Van den Bosch, & Volberda, 2006; Sheremata, 2000), as it allows for higher degrees of coordination, fosters efficient processes, and enables organizations to realize synergies across existing knowledge stocks (Adler et al, 1999; Miller & Droge, 1986). In her empirical study of the pharmaceutical industry, Cardinal (2001) found that centralization facilitated the exploitation of existing products.

While centralization may support exploitation, it has also been found to limit lateral communication, reduce the quantity and quality of knowledge available across the organization, thus decreasing employees' ability and motivation to generate new and innovative ideas (Damanpour, 1991; Nord & Tucker, 1987; Sheremata, 2000). In the context of a financial services company, Jansen et al (2006) found evidence of a negative association between centralization and exploration. Explorative learning requires nonroutine problem solving and fresh thinking that may be better supported by decentralization (Nickerson & Zenger, 2002). Decentralization allows for generative learning and lateral communication, thus encouraging the exploratory search for new knowledge (Adler et al, 1999). Companies thus face conflicting structural requirements when aligning their organizations: while exploration may be better supported by decentralized structures, exploitation calls for more centralized structures.

Corporate Strategy. An important decision in corporate strategy relates to firms' diversification behavior (Ansoff, 1957; Rumelt, 1974). Diversification moves are

regarded as vital in corporate development to avoid inertia and revitalize the firm (Miller & Chen, 1996; Teece et al, 1997). Barkema & Vermeulen (1998), for instance, argue that firms should promote new learning by entering a variety of product and geographical segments. Burgelman (2002) relates expansion into new fields to autonomous strategic processes and explorative learning. Exploratory initiatives thus emerge outside the current strategy and allow new product-market environments to be entered (Benner & Tushman, 2003: 243).

Conversely, diversification moves – especially into unrelated areas – have also been related to additional costs and increasing risk (e.g., Lubatkin & Chatterjee, 1994; Palich, Cardinal, & Miller, 2000). Alternatively, firms may focus on existing products and market environments. The firm's existing business can be strengthened by consolidation-related acquisitions and new ventures that build on existing knowledge and capabilities (Burgelman, 1991; Webb & Pettigrew, 1999; Vermeulen & Barkema, 2001). Burgelman (2002) describes such developments inside a firm's core business as induced strategic initiatives and relates them to exploitative learning. Exploitation builds on existing knowledge, products, and customer groups (Benner & Tushman, 2003). This focus on the existing business may contribute to more efficient exploitation, but simultaneously undermines a firm's ability to explore new fields in future. Induced and autonomous strategic initiatives thus compete for scarce resources and corporate leaders need to carefully select the most appropriate ones (Burgelman, 2002).

Corporate Alignment. As described above, firms can actively support exploitation and exploration by aligning their strategies and structures. The contrary requirements, however, make it difficult to provide for both learning processes simultaneously. While exploitation has been related to centralized structures and a narrow search with regard to corporate strategy, exploration may benefit more from decentralized structures and a broad search with regard to corporate strategy. These tradeoffs have been described as a “central paradox of administration” (Thompson, 1967).

In the literature, two contrary recommendations have been developed on how corporate leaders should align their organizations to deal with these challenges.

Some scholars believe that the contradictory requirements of exploitation and exploration are impossible to be harmonized within a single firm. These scholars promote a one-sided alignment with either exploitation or exploration and link mixed approaches to poor performance (e.g., Burns & Stalker, 1961; Ghemawat & Costa, 1993; Porter, 1980). Ebben and Johnson (2005), for example, found empirical evidence that firms aligned with either exploitation or exploration outperformed firms that tried to pursue both orientations.

Conversely, a second group of researchers points to the shortcomings of a one-sided alignment. These researchers consider a balance between exploitation and exploration as essential for firms' long-term success and survival (e.g., Tushman & O'Reilly, 1996; He & Wong, 2004). Several recent studies found empirical evidence for the superior performance of balanced – or ambidextrous – firms (Gibson & Birkinshaw, 2004; He & Wong, 2004; Lubatkin, Simsek, Yan, & Veiga, 2006).

3.2.3. Environmental Munificence as Boundary Condition for Corporate Alignment

The contrary recommendations and empirical findings in respect of firms' alignment behaviors fostering different types of learning may be partly explained by the neglect of boundary conditions. According to contingency theory, there is no one best organizational initiative (Ginsberg & Venkatraman, 1985). This is explained in that these initiatives do not take place in a vacuum, but rather inside a social system. The external environment therefore affects organizational contexts (e.g., Tushman & Rosenkopf, 1996). In order to be successful, corporate alignment requires a fit with the external environments' demands (Hambrick, 1983; Lawrence & Lorsch, 1967; Miller, 1992). Both Lewin et al. (1999) and Levinthal and March (1993) suggested that task environments might moderate the relationship between initiatives and performance that are exploitation or exploration oriented. Consequently, corporate leaders should consider external contingency variables when deciding on exploitation-oriented or exploration-oriented organizational and strategic initiatives.

Environmental Munificence. Organizational task environments' range of dimensions is manifold (Starbuck, 1976). However, there is an established consensus among researchers regarding a few important dimensions (Dess & Beard, 1984; Aldrich, 1979). In this paper, in line with other research in the field (e.g., Zahra, 1993), we use the "environmental munificence" concept to analyze external contingencies' moderating effect on the performance impact of corporate alignment activities. Environmental munificence reflects an industry's opportunities and renewal richness. It embodies industry growth, dynamism, an abundance of technological opportunities and the environment's demand for new products (Aldrich, 1979).

Industry growth refers to the industry's capacity to allow the relevant organizations to grow as well as to provide them with financial stability (Cyert & March, 1963). Dynamism refers to the continuity of change in a firm's environment, which can occur through regulatory developments, competitive rivalry and other, similar forces. The definition emphasizes the persistence of change in the environment, rather than the nature or rate of change as such (Miller & Friesen, 1984). Technological opportunities rely on the technological push effect, with new advances stimulating demand in existing or new markets (Scherer, 1980). The lack or existence of opportunities may therefore impede or stimulate corporate entrepreneurship. The last component is the importance of new products, which relies heavily on demand's pull effect when customers ask for new ways of problem solving (Zahra, 1993).

Aligning Organizations and Environments. Environments create opportunities while at the same time imposing constraints on the companies involved (Djelic & Ainamo, 1999). Due to the various interrelations between environmental conditions and firm strategy and structure, companies should consider external factors' influence on alignment activities (Farjoun, 2002).

Dynamic and highly munificent environments quickly render current products and services obsolete and thus require new ones to be developed (Jansen et al, 2006; Sorensen & Stuart, 2000). In order to minimize the threat of obsolescence, companies in these environments need to pursue exploratory initiatives such as the

creation of new customer segments or market niches (Levinthal & March, 1993; Lumpkin & Dess, 2001). As market demand is high and increasing, companies face considerable opportunities for new growth. Hence, we expect exploration-oriented alignment behaviors to be most promising under conditions of high environmental munificence. Conversely, firms focused on exploitation may fall behind as they miss market opportunities while competitors race ahead.

Hypothesis 1. Explorative alignment behavior's effect on performance is positively moderated by high levels of environmental munificence.

Conversely, environments characterized by low environmental munificence provide the stability required for the efficient exploitation of existing products and technologies (Burgelman, 2002; Ketchen, Thomas, and Snow, 1993). The weak market demand reinforces the competition between established players, which may further increase the pressures for higher efficiency and lower prices (Matusik & Hill, 1998). In competitive environments, firms need to focus on continuous cost improvements to enhance their performance (Lumpkin & Dess, 2001). Conversely, extensive risk taking and a strong focus on new products can be particularly risky in these environments (Miller & Friesen, 1983: 223). This is explained by the lack of firm resources for large-scale exploratory initiatives in a hostile market environment (Zahra & Bogner, 1999).

While a strong focus on exploration may be dangerous, researchers argued that some degree of exploration might be necessary. Focusing exclusively on exploitation in the context of low environmental munificence bears the risk of companies getting trapped in existing products, services, and processes (Levinthal & March, 1993). Companies need to engage in some degree of risk-taking and proactive activities that require exploration to enable them to elude the downward spiral caused by consolidating markets (Zahra, 1993; Zahra & Covin, 1995). By engaging in new products and markets, companies may be able to free themselves from the extensive rivalry and price wars that characterize environments characterized by low munificence. These exploratory activities are considered complementary to a primary focus on efficiency. As there are no quick returns on exploration, firms need to maintain their exploitative efforts to free up scarce

financial resources for further investment in exploratory initiatives. Environments marked by low environmental munificence may thus require a balanced focus on both exploitation and exploration (Auh & Menguc, 2005; Jansen et al, 2006).

Hypothesis 2. Balanced alignment behavior's effect on performance is positively moderated by low levels of environmental munificence.

3.2.4. The Dynamics of Corporate Alignment

March (1991: 71) argued that the returns from exploitation and exploration vary over time. Empirical studies have shown that success is not a question of static fit with the relevant environmental contingencies, but rather of dynamic alignment to changing environmental conditions (Zajac et al, 2000). At different times, varying emphases are required on specifically relevant learning orientations (Burgelman, 1991). Along the same lines, the “cycling” theory claims that organizations temporarily modulate between different strategies and structures, with changes occurring whenever the actual functionality is biased against the desired one (Eisenhardt & Brown, 1999; Nickerson & Zenger, 2002; Siggelkow & Levinthal, 2003). Duncan (1976) argues for modulating between activities that are exploitation and exploration oriented over the firm's life cycle.

While firms' alignment behavior has been found to converge to some extent at the industry level, differences in individual firms' behaviors have been observed (e.g., Siggelkow & Levinthal, 2003). Differences in firms' reaction to similar environmental changes may be explained by the degree of misfit between these firms' prior positioning and the new environmental exigencies (Burton, Lauridsen, & Obel, 2002). Zajac et al (2000) found that greater misfits with external conditions induced stronger changes. We thus assume that firms with a strong one-sided orientation (i.e. towards exploration) within a specific period are forced to adapt their alignment behavior (i.e. towards exploitation) more radically when environmental conditions change. Firms with a more balanced orientation may be able to react to environmental change by making only minor adjustments to their alignment behavior. The degree of change required may thus depend on the extent

of the misfit between the firm's initial alignment orientation and the new orientation required by the altered environmental conditions.

Hypothesis 3. When the level of environmental munificence changes, firms with greater misfits show greater changes in their alignment patterns.

Organizational change can be extremely costly (Argyris, 1970; Kanter, 1983). There are considerable upfront change costs in respect of the new strategy or structure's planning and implementation. Additional costs arise from a transitional loss of productivity due to employee turnover and resistance to change (Lamont, Williams, & Hoffman, 1994; Miller & Friesen, 1980). Due to organizational inertia, organizations are slow to adapt the informal organization after changes in the formal organization. Reorganization produces a "liability of newness": the greater the frequency of change and its relative intensity, the greater the likelihood of poor performance and failure (Cyert & March, 1963; Hannan & Freeman, 1984). We therefore assume that greater changes are related to increased cost and lower short-term performance.

Hypothesis 4. Greater changes in firms' organizational alignment patterns lead to lower short-term performance.

3.3. Methodology

We tested our hypotheses by means of a longitudinal field study of corporate initiatives in the European insurance industry between 1995 and 2005. This industry is particularly interesting, as the firms faced extreme changes in their environmental conditions due to deregulation, new technologies, customer demands and changing capital markets (Ackermann et al., 2005). In the first 5 years of the observed period (1995 to 1999), deregulation spurred innovation and customer orientation, while the booming capital markets fueled expansion into foreign markets and new business segments (Enz, 2005). Following a strong market downturn, insurance companies refocused on tighter cost control and operational efficiency during the second part of the observed period (2000 to 2005).

3.3.1. Setting and Data Collection

A single industry study was chosen for its clearly demarked population and controllable environmental characteristics (Frederickson & Iaquinto, 1989). Selecting the European insurance industry as the arena for our empirical research, we constructed an area sample defined by three dimensions (Churchill, 1999). To be included, companies needed (1) a primary SIC code equal to life insurance (6311), non-life insurance (6331) or reinsurance (6371); (2) headquarters located in Austria, Germany, and Switzerland (region 1), or the United Kingdom and Ireland (region 2) or France and Benelux (region 3), and (3) premiums of at least €100 million by 2005. The full area sample included 98 insurance companies, which were contacted and asked to provide a full set of company reports for the last decade. We received full information on 79 companies or 81% of the population. The results reported in this paper are based on these data.

We collected panel data from archival sources, including company reports and company information databases, to describe firms' alignment activities between 1995 and 2005. The use of archival data seems appropriate, as researchers have questioned the reliability of informants' retrospective accounts (Golden, 1992; Miller, Cardinal, & Glick, 1997). Furthermore, previous research on firms' alignment activities has found the analysis of corporate development over a ten-

year period to be adequate (Pettigrew, 1985). An extension to a longer period would have been complicated by the poor data available on earlier decades.

3.3.2. Constructs and Measurements

We considered two types of exploitation-oriented and exploration-oriented corporate alignment initiatives as independent variables: centralization and decentralization shifts within an organizational structure, as well as focus and diversification shifts within corporate strategy.

Structural alignment initiatives. Shifts towards centralization are represented by corporate initiatives that lead to a higher concentration of decision-making power. The requirements for a centralization event have been met when one of the following occurs: (1) the creation of a functional role (i.e. Head of HR, CIO/CTO) on the management board; (2) the creation of a central operating role (i.e. COO, VP Operations); (3) the merging of strategic business units; or the (4) creation of a centralized shared services center. Conversely, shifts towards decentralization are represented by corporate initiatives that lead to a lower concentration of decision-making power. The requirements for a decentralization event have been met when one of the following occurs: (1) the abolishment of a functional role on the management board; (2) the abolishment of a central operating role; (3) the division of strategic business units; or (4) the dissolution of a centralized shared services center. Tushman and Rosenkopf (1996) used similar measurements in respect of shifts in both centralization and decentralization.

Strategic alignment initiatives. Shifts related to a focus on strategy are represented by corporate initiatives that (a) extend the firm's existing core business and/or (b) refocus the firm on its existing core business by shutting down or selling off non-core activities. The requirements for a focus event have been met when one of the following occurs: (1) withdrawal from a primary business segment; (2) withdrawal from a country market; (3) consolidation-related acquisition or a new venture (>1 % of sales); or (4) consolidation-related large-scale expansion (>5 % of sales). Moves related to a diversification strategy are represented by corporate initiatives that extend the firm's activities into new

product or geographical segments. The requirements for a diversification event have been met when one of the following occurs: (1) entry into new primary business segment; (2) entry into a new country market; (3) diversification-related acquisition or a new venture (>1 % of sales); or (4) diversification-related large-scale expansion (>5 % of sales). Similar measurements have been used in respect of shifts in focus as well as diversification in several previous studies (e.g., Vermeulen & Barkema, 2001; Webb & Pettigrew, 1999).

Firm Performance. As the dependent variable, we use return on equity (ROE), as it is widely recognized as a reliable accounting-based measure of corporate performance (e.g., Ketchen et al., 1993; Porter, 1980). We computed the company ROE as the net income divided by the average equity (Tushman & Rosenkopf, 1996). To control for industry performance differences within the three regions, we adjusted the company-specific ROEs by deducting the respective average market ROE.

Environmental Munificence. The moderating variable “environmental munificence” was determined on a yearly basis through a combination of quantitative and qualitative approaches. In line with prior studies (e.g., Staw & Sz wajkowski, 1975; Dess & Beard, 1984), we first computed the average industry ROE, the growth in industry sales, the growth in industry employment, and the spending on new customer marketing activities. All figures were then compared with the respective average values and aggregated to a single index. Next, we conducted seven semi-structured interviews with industry experts to gain a more qualitative assessment of environmental munificence. As in earlier investigations, the qualitative information was used to challenge and verify the quantitative data (e.g., Fritz 1992; Dess & Keats, 1987; Miller & Friesen, 1984). The results from the industry experts’ assessment confirmed our quantitative findings.

Control Variables. In the empirical study, we controlled for possible contradicting effects by including a number of control variables. We considered firm size and firm age, the firm’s primary SIC code, the firm’s regional code, the legal form, the year of the event, and the type of alignment initiative (e.g., Carroll & Hannan, 2000; Tushman & Rosenkopf, 1996).

3.3.3. Data Analysis

Altogether, we registered 2,693 events over an 11-year period within the 79 companies (a mean of 34 events per company). We thereafter summarized the relevant data for each firm in a profile. Following Webb and Pettigrew (1999: 605), we recorded whether an event had been achieved or not, rather than to which extent an organization conducted these shifts. This allowed the binary coding of events in the year of their implementation.

To distinguish firms' alignment patterns, we used a "mixing ratio", which indicated the relative importance of exploitation-oriented initiatives in comparison to exploration-oriented ones. Auh and Menguc (2005) used a similar procedure. This approach assumes a continuous relationship between exploitation-oriented and exploration-oriented alignment initiatives. While some researchers share this belief (e.g., March, 1991), others have argued in favor of an orthogonal relationship between exploitation and exploration (e.g., Katila & Ahuja, 2002). We agree with Gupta, Smith, and Shalley (2006) that no universal argument can be made in favor of either continuity or orthogonality. It is important to consider whether or not the two activities compete for scarce resources and whether or not the analysis focuses on a single or multiple domains. In our model, we suggest a continuum that ranges from alignment activities that are exploration oriented to those that are exploitation oriented, as both orientations refer to the same (corporate) level and (to a large extent) compete for limited resources and managerial time.

3.4. Results

In the following, we present the results of the quantitative analysis. The first Table 3-1 presents the *descriptive cross-sectional, time-series summary statistics* of the variables employed. It is followed by Table 3-2 with the values of the *industry's munificence index (1995 to 2005)*. The regression results of the *hypotheses testing* are reported in Tables 3-3 to Tables 3-6. We report the parameter estimates, as well as the standard errors and values of the t-statistics in respect of each regression. The probability levels are indicated by asterisks. The triple asterisks indicate significance at the 1% level, while the double asterisks indicate significance at the 5% level. A single asterisk shows a 10% level of significance. We also included control variables, which turned out to be insignificant.

Table 3-1 shows the means, standard deviations, and correlation coefficients of the main variables (1995 to 2005). The report indicates a positive, yet insignificant correlation between exploration and performance over the 11-year period. A highly significant negative correlation can be found between the munificence index and the mixing ratio. In highly munificent environments there is a tendency towards exploration, whereas low munificence implicates more exploitation.

Variables	Mean	S.D.	1	2	3	4
1. Mixing Ratio, <i>MR</i>	.52	.34	1			
2. Distance to Yearly Mean Mixing Ratio, <i>Dist</i>	.27	.18	-.064	1		
3. Munificence Index, <i>MI</i>	.09	.05	-.114***	-.064	1	
4. ROE (market adjusted), <i>ROE</i>	.09	10.48	-.044	-.003	-.038	1
5. ROE first difference, <i>1st ROE</i>	-.11	27.59	-.03	-.004	.005	.121**

Table 3-1: Descriptive Statistics/Pearson Correlations

The computation of the industry's munificence index (Table 3-2) shows highly intuitive results and is in line with retrospective qualitative accounts. In the first half of the observed period (1995 to 2000), deregulation, booming capital markets

and the emergence of novel "Allfinanz" opportunities led to rather high munificence levels (Enz, 2005). The lower munificence levels in the second half can be explained with the strong overall market downturn and a struggling insurance sector, refocusing on its core competencies (Ackerman et al., 2005).

Yearly Values	
1995	.117
1996	.190
1997	.080
1998	.012
1999	.113
2000	.125
2001	.137
2002	.027
2003	.042
2004	.078
2005	.079

Table 3-2: Values of the Munificence Index Employed

The four hypotheses presented above were tested using pooled ordinary least squares (OLS) regression analysis.

Hypothesis 1 posits that exploration-oriented alignment behaviour's effect on performance is positively moderated by high environmental munificence. In order to test hypothesis 1 we estimated the following equation:

$$ROE = \alpha + \beta_1 * (I - MR) + \beta_2 * MI + \beta_3 * (I - MR) * MI + \varepsilon$$

Whereas, the third variable is the cross product of the mixing ratio and the munificence index. A positive moderation implies that an orientation towards exploration (high value for $I - MR$) combined with high environmental

munificence results in a high *ROE*. Hence β_3 has to be positive to indicate a positive moderation. To ensure that the positive moderation occurs due to the moderation itself and not due to a dominant effect of either performance or munificence itself, the variables *MR* and *MI* are included in the regression. The estimation of the relevant coefficient β_3 is positive (49.108) and significant ($t=2.103$). Hence, the result from the linear regression analysis supports Hypothesis 1.

Hypothesis 1 (Dependent Variable: <i>ROE</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	2.306	1.385		1.665*	.096
1 - <i>MR</i>	-2.750	2.352	-.088	-1.169	.243
<i>MI</i>	-34.552	14.424	-.165	-2.395**	.017
(1 - <i>MR</i>) * <i>MI</i>	49.108	23.346	.209	2.103**	.036

Table 3-3: Time-Series Regression Analysis to Determine Hypothesis 1

Hypothesis 2 suggests that in the context of low munificence, firms might reach superior performance by relying on a balanced alignment pattern. We defined the degree of balance in firms' alignment patterns using the distance from the mixing ratio to the respective yearly average mixing ratio. Again, the moderation is tested using the product between the distance and the munificence index. More formally:

$$ROE = \alpha + \beta_1 * Dist + \beta_2 * MI + \beta_3 * Dist * MI + \varepsilon$$

As shown in Table 3-4, the non-linear regression analysis failed to show any significant results. Hypothesis 2 is thus rejected.

Hypothesis 2 (Dependent Variable: ROE)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	1.034	1.509		.686	.493
<i>Dist</i>	-7.901	14.200	-.039	-.556	.578
<i>MI</i>	-1.743	4.486	-.031	-.389	.698
<i>Dist * MI</i>	10.388	43.213	.023	.240	.810

Table 3-4: Time-Series Regression Analysis to Determine Hypothesis 2

Hypothesis 3 posits a more radical reaction by organizations that show greater misfits with the altered external conditions. In order to obtain the “optimal” mixing ratio for every year, we used the mean market mixing ratios of the top performing tier of companies (33% best) in every year. We then subtracted the mixing ratios for every company in every year from the mean market mixing ratio of the top-performers in the respective subsequent year. This comparison allowed us to predict each company’s “need for adaptation” (*PAM*). Next, we calculated each company’s “actual adaptation realized” (*PAR*) by subtracting the company’s mixing ratio in year 0 from its mixing ratio in the subsequent year. The hypothesis is tested by estimating the following equation:

$$PAR = \alpha + \beta_1 * PAM + \varepsilon$$

As shown in Table 3-5, the relationship between *PAM* and *PAR* is positive and highly significant ($p = 0.000$). Organizations that showed high “misfits” changed their alignment patterns more radically when adjusting to the altered environmental conditions in the following year compared to firms that had already been in a more favourable position in the first year. Hypothesis 3 was thus supported.

Hypothesis 3 (Dependent Variable: <i>PAR</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	.016	.026		.609*	.0544
<i>PAM</i>	.782	.105	.653	7.423***	.000

Table 3-5: Time-Series Regression Analysis to Determine Hypothesis 3

Hypothesis 4 predicts a negative short-term performance effect in respect of larger changes in firms' alignment patterns. In order to test this proposition, we computed the absolute change in a firm's mixing ratio (*Change*) from one year to the next. As the dependent variable we used the first difference of the return on equity in the year of the adaptation and the return on equity in the subsequent year. This approach allowed us to get rid of a possible self-selection bias that would have occurred when solely relying on performance levels. The following equation was estimated:

$$1^{st} ROE = \alpha + \beta_1 * Change + \varepsilon$$

As predicted, we found a negative and significant relationship between change and performance (t = -1.997; p = 0.046). Hypothesis 4 was thus supported.

Hypothesis 4 (Dependent Variable: <i>1st ROE</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	2.232	1.479		1.509	.132
<i>Change</i>	-6.914	3.462	-.0845	-1.997**	.046

Table 3-6: Time-Series Regression Analysis to Determine Hypothesis 4

3.5. Discussion

3.5.1. Contributions

Research has presented a range of contradictory recommendations on how organizations should align their strategies and structures to exploitation and exploration. Accordingly, empirical studies in the field have produced mixed results. Only recently, have studies started to reflect on the external environment's moderating role on the different alignment patterns' performance outcomes. The objective of this study was therefore to explore how environmental munificence affects the effectiveness of exploitation-oriented and exploration-oriented corporate alignment initiatives.

Prior research suggested two opposed alignment patterns to enable organizational learning: a one-sided alignment focused on either exploitation or exploration, and a more balanced alignment that intends to foster both learning types simultaneously (Adler et al., 1999; He & Wong, 2004). We argued that both alignment patterns might be beneficial – albeit under varying environmental conditions. Our findings demonstrate that exploration-oriented alignment behavior is linked to superior performance in an environment characterized by high munificence. The data also show that firms are moving towards a more balanced orientation in times of low environmental munificence. Contrary to our assumptions, however, we did not find evidence of such a balanced alignment having a superior performance effect. This may be explained by the particularly low variance and standard deviations across the entire sample: nearly all firms showed similar behavior in times of low environmental munificence. Previous studies have shown that firms' alignment behaviors converge in the face of increasing environmental hostility (Auh & Menguc, 2005). This uniformity in firm behavior may make it difficult to identify performance differences. Future research should examine whether a balanced orientation in times of low munificence – while not directly leading to superior performance – reduces the firm's risk of failure. A balanced orientation may thus be a necessity rather than a distinguishing factor when markets go south.

Our findings further show that firms “cycle” through periods of different alignment behaviors in line with changing environmental conditions (Nickerson & Zenger, 2002; Siggelkow & Levinthal, 2003). As predicted, we found that firms with a stronger initial alignment towards one side demonstrate more radical changes towards the other side when environmental munificence changes. These results highlight that, depending on firms’ initial configuration, they exhibit different organizational responses to similar environmental shifts (Zajac et al, 2000). We also found the more radical realignments to negatively affect short-term performance. Prior research has related this effect to the various costs associated with the planning and implementation of organizational change (Amburgey, Kelly, & Barnett, 1993; Argyris, 1970).

Altogether, our findings reveal a fundamental dilemma that gives firms a Hobson’s choice between two suboptimal alignment behaviors that could be called “flat slopes” and “steep slopes”. Companies with alignment patterns resembling a *flat slope* take a middle position between exploitation and exploration. From a static point of view, their alignment behavior resembles that of an ambidextrous organization (Gibson & Birkinshaw, 2004; Tushman & O’Reilly, 1996). When environmental conditions change, however, these firms alter their alignment behavior to achieve a better external fit. These movements are relatively minor and gradual due to the balanced starting position. While a prudent alignment with environmental changes may help to minimize the risk, these companies may miss out on opportunities in times of high munificence.

Conversely, firms with an alignment pattern akin to a *steep slope* focus on exploration in times of high munificence and radically move back towards a balanced orientation when munificence declines. This dynamic pattern resembles the cycling strategy of organizational alignment described by previous studies (e.g., Brown & Eisenhardt, 1998; Siggelkow & Levinthal, 2003). Our research shows that this behavior is rewarded by superior returns in times of high environmental munificence. At the same time, however, we also found that these firms bear the additional cost (and risk) of planning and implementing large-scale change.

Future research should directly examine the performance outcomes of both alignment patterns. An interesting finding has recently been presented in the related debate on “strategic purity”. Strategic purity (as opposed to “balanced” strategies) is a one-sided focus on either cost leadership or differentiation (Thornhill & White, 2007). Thornhill, White, and Raynor (2006) found that the “pure” players are associated with a higher profitability, but also with a greater risk and higher exit rates than balanced companies. Accordingly, we expect that firms showing flat slopes will exhibit less variance in performance over time and will be less prone to failure and bankruptcy. This can be explained by these firms’ higher degree of stability and balance between contradictory requirements. On the other hand, we expect firms exhibiting steep slopes to outperform them in terms of financial performance. This can be related to these firms’ more active and aggressive reaction to market opportunities. Firms may thus have to select between the “race car strategy” (peak performance in the short run) and the “luxury sedan strategy” (built to last for the long run).

3.5.2. Limitations and Future Research Directions

Several limitations, which provide insightful directions for future research, deserve discussion. First, for theory-testing purposes, we conducted our study in the insurance industry. While we collected data on firms of different sizes and from different countries, the generalizability of our findings to other types of organizations is still limited. Firms exhibiting cycling behavior characterized by steep slopes may, for instance, find it more difficult to outperform industries with faster “clockspeeds” than the relatively stable insurance industry (Fine, 1998; Mendelson & Pillai, 1999). Frequent changes create significant additional cost, which may render flat slope alignment patterns more promising. Hence, future research should replicate and extend this study to other sectors and compare findings across different industry settings.

Second, although our study provides new insights into strategic and structural alignments to exploitative and exploratory learning, it does not address how managers actually implement these changes within their organizations. Previous studies have shown, for example, that “balanced” alignments can be achieved by different means, including the creation of “parallel learning structures” (Bushe &

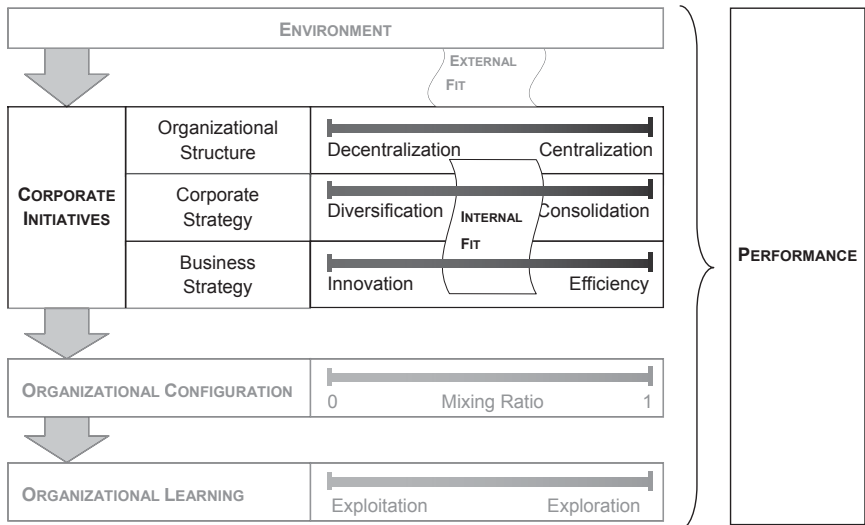
Shani, 1991; McDonough & Leifer, 1983) and structural separation into exploitative and exploratory units (Benner & Tushman, 2003; Tushman & O'Reilly, 1997). Others found that factors such as cultural contexts (Gibson & Birkinshaw, 2004) and leadership team structures (Lubatkin et al, 2006) might affect organizations' ability to successfully implement a "balanced" alignment. It would be useful to conduct in-depth studies to better understand how these differences in corporate alignment initiatives' implementation moderate the findings in this study.

Third, while we capture "exploitation-oriented" and "exploration-oriented" alignment activities in our study, we do not measure the actual learning activities themselves. Based on prior findings that related different structural and strategic activities to the two learning types (e.g., Ancona et al, 2001; Jansen et al, 2006; Levinthal & March, 1993), we implicitly assumed that a certain type of corporate initiative would trigger a respective learning behavior. While our focus was on alignment behaviors' performance effects, future studies may open up the "black box" of organizational learning by measuring exploitative and exploratory learning processes. This would, however, require moving from archival data to primary data acquired through a field study based on questionnaires or interviews. While such a study design will reduce the researcher's ability to analyze longitudinal developments, it may allow for a more detailed investigation into interrelations between learning processes, organizational alignment initiatives, and performance outcomes.

In sum, this paper presented various theoretical and practical implications by providing new insights into how environmental conditions and dynamics affect corporate alignment initiatives' effect on firm performance. We showed that different alignment patterns – one-sided and balanced – are complementary rather than mutually exclusive. Elements of both basic patterns are used over time to address changing environmental requirements. Successful firms exhibit both stability and change in their organizational alignment behaviors.

PAPER 3

BALANCING INTER-LEVEL OR INTRA-LEVEL? PERFORMANCE EFFECTS OF CONFIGURATIONS MEETING CONFLICTING ORGANIZATIONAL DEMANDS



Balancing Inter-Level or Intra-Level? Performance Effects of Configurations Meeting Conflicting Organizational Demands

Abstract

This paper focuses on the internal dimension of aligning for ambidexterity and its effects on firm performance. Applying a longitudinal research design on 79 firms in the European insurance industry over an 11-year period, we find different patterns of organizational alignment, which lead to ambidextrous learning behavior. The specific balancing patterns' distinct performance effects depend on further contingency variables. Additionally, we find that organizations, which balance for ambidextrous alignment, tend to be more dynamic in aligning with changing internal and external demands than their one-sided competitors.

The study expands existing research by analyzing organizational alignment activities that encompass multiple organizational levels. The comparable performance effects of differing alignment patterns are in line with the concept of equifinality, which implies establishing similar competitive advantages through different strategic and organizational means, depending on different boundary conditions. Ambidextrous organizations' strong tendency towards extensive use of alignment activities further provides a promising starting point for future research ventures.

Keywords: Ambidexterity, Alignment, Configurations, Equifinality, Internal Fit

The difference between management and administration is the difference between choice and rigidity.

(Robert Heller)

4. Balancing Inter-Level or Intra-Level? Performance Effects of Configurations that Meet Conflicting Organizational Demands

4.1. Introduction

March (1991) introduced the notions of "exploration" and "exploitation" as two fundamentally different approaches to organizational learning, between which organizations divide their attention and their resources. "Exploitation refers to learning via local search, experiential refinement, and selection and reuse of existing routines. Exploration refers to learning gained through processes of concerted variation, planned experimentation, and play" (Baum et al., 2000). Both approaches require different structures and strategies (He & Wong, 2004).

There is a fundamental trade-off between investing scarce resources in exploration or exploitation (March, 1991). The allocation of sufficient resources to exploitation ensures current viability, whereas engagement in exploration ensures future viability (Levinthal & March, 1993). While there are fundamental differences between the two learning activities, a growing body of literature argues for a simultaneous pursuit of exploitation and exploration (Gibson & Birkinshaw, 2004; Duncan, 1976; Tushman & O'Reilly, 1996). Superior performance is predicted for "ambidextrous" firms, which balance exploration and exploitation (Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996; Lubatkin et al., 2006). While ambidexterity is generally assumed to have a positive effect on organizational viability and firm profitability, there are different approaches to pursuing exploration and exploitation at the same time. Some authors suggest that organizations should combine the conflicting demands by externalizing either exploration or exploitation through outsourcing or alliances (e.g., Holmqvist, 2004; Lavie & Rosenkopf, 2006). Others propose temporary cycling between the

different orientations (e.g., Nickerson & Zenger, 2002; Siggelkow & Levinthal, 2003). In line with an increasing stream in the literature (Raisch & Birkinshaw, 2008; Benner & Tushman, 2003; Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996), we consider ambidexterity the *simultaneous* and *internal* pursuit of exploration as well as exploitation in an organization.

There are two generic patterns which may be used to achieve the desired internal and simultaneous balance between exploration and exploitation: First, *inter-level balancing* allows organizations to achieve ambidexterity by combining opposite orientations on different organizational levels (see Figure 4-1). Benner and Tushman (2003) propose a combination of structure, process, incentive, and leadership characteristics. While this could, for example, be a structure supporting explorative learning behavior on the corporate level, this one-sided orientation is mitigated by an incentive scheme fostering exploitation on the business level. Ambidexterity is realized by a process of senior management's active combination of organizational levels' characteristics (Floyd & Lane, 2000). Inter-level balancing is in line with studies that favor "purity" over hybrid organizational solutions on distinct organizational levels (e.g., Porter, 1980, 1985, 1996; Carroll & Hunter, 2006). However, managing two differently aligned organizational levels, which are mutually inconsistent, at a time can be far more complex than managing the same consistent organizational alignment on all the levels (Gupta et al., 2006).

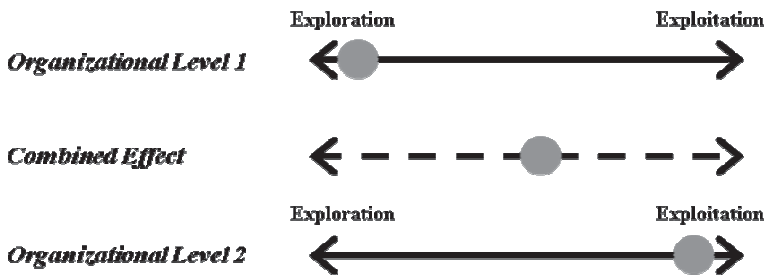


Figure 4-1: Inter-Level Balancing

Secondly, *intra-level balancing* (see Figure 4-2) allows organizations to achieve ambidexterity by applying a balanced ambidextrous alignment across multiple organizational levels (Carroll & Hunter, 2006). This approach establishes fit between different organizational levels and prevents problems from emerging when there is a misfit between different organizational contingencies (e.g., Donaldson, 2001). There is strong support for the strategic integration of exploration and exploitation between different organizational levels via a common set of values, an overarching governance process, and a shared vision, allowing for simultaneous stretch and lever (O'Reilly & Tushman, 2008; Gibson & Birkinshaw, 2004). In contrast, other studies suggest poor performance, when organizations deviate from certain configurations or distinct sets of organizational characteristics (Ketchen et al., 1997; Gupta et al., 2006; Raisch et al., 2009). Strategies and structures with a dual focus are expected to lead to inconsistency and therefore imply poor performance (Doty, Glick & Huber, 1993; Ghemawat & Costa, 1993).

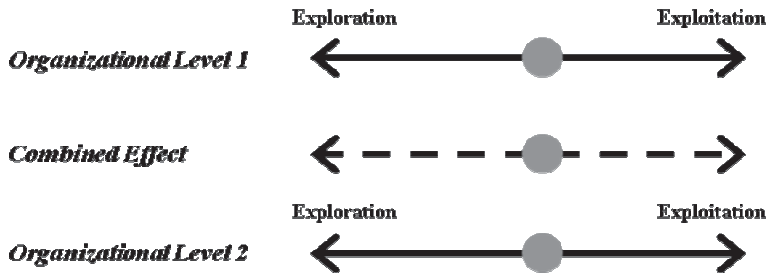


Figure 4-2: Intra-Level Balancing

Consequently, it remains theoretically unclear, whether an ideal ambidextrous configuration can be achieved by mixing exploration and exploitation - thereby encouraging ambidextrous alignment on every level and establishing inter-level consistency (*intra-level balancing*) -, or whether optimum ambidextrous alignment is achieved by focusing on "pure" forms and establishing intra-level consistency (*inter-level balancing*) (Carroll & Hunter, 2006; Levinthal & March, 1993).

This study is aimed at closing this gap in ambidexterity research. Three major research questions guide our study: *Is there empirical evidence of different balancing patterns (inter-level and intra-level balancing) when aligning for organizational ambidexterity? If so, what are these distinct balancing patterns' performance effects? How do organizations adopt their balancing patterns over time?*

In contrast to previous studies, our research design allows us to directly focus on the issues in question. First, most studies in ambidexterity research concentrate on a single level of analysis (e.g., He & Wong, 2004; O'Reilly & Tushman, 2004). We adhere to Raisch and Birkinshaw's (2008) call for the development of models and measures that are able to span multiple levels of analysis. Second, in contrast to other studies' often narrow scope (Jansen, Van den Bosch, & Volberda, 2005), we conduct an empirical extension by quantitatively examining 3,217 alignment moves by 79 European insurance companies. Third, previous studies are mostly cross-sectional and static. Empirical evidence, however, shows that alignment and its performance outcomes are a consequence of dynamic alignment (e.g., Zajac, Kraatz, & Bresser, 2000). This shortfall is addressed by a longitudinal setting in a 11-year time frame.

The study is based on the identification of corporate initiatives that affect the alignment of learning environments in support of exploration and exploitation on both the corporate and the business-unit levels (March, 1991; Burgelman, 2002; O'Reilly & Tushman, 2004). This allows us to model different patterns of organizational balancing over time and to monitor the subsequent performance outcomes (He & Wong, 2004; Lawrence & Lorsch, 1967; Levinthal & March, 1993).

We find that ambidexterity actually yields positive performance effects. However, the pursuit of long-term ambidexterity is rather a question of dynamic rather than static balancing. These findings offer important implications on how future research should advance and give advice to practitioners.

4.2. Literature Review and Hypotheses

4.2.1. Ambidexterity: Aligning for Organizational Learning

Organizational learning, defined as an organization's capability to create, disseminate, and act upon generated knowledge, has been regarded a necessary dynamic capability for firms seeking to sustain a competitive advantage (Barney, 1991; Teece, Pisano, & Shuen, 1997). The exploration of new competencies and the exploitation of existing capabilities reflect two different types of organizational learning (He & Wong, 2004; March, 1991). Exploration creates variety through search, discovery, novelty, innovation, and experimentation. Conversely, exploitation aims at extending existing knowledge by means of the refinement, routinization, production, and implementation of knowledge (March, 1991).

Although executives' direct influence on these learning processes is limited, managers can align the organizational context to enable exploration and exploitation (Lechner, 2006; Goold, Campbell, & Alexander, 1994). Both learning types, however, require radically different structural and strategic contexts (He & Wong, 2004; Ancona, Goodman, Lawrence, & Tushman, 2001) and lead to a fundamental trade-off between aligning to exploit existing capabilities or explore new ones (Floyd & Lane, 2000; Levinthal & March, 1993). This trade-off view is challenged by a balanced view of organizational alignment. Its recommendation is to maintain a balance between exploitation and exploration, which allows for *ambidexterity* (Duncan, 1976; Gibson & Birkinshaw, 2004; He & Wong, 2004; Tushman & O'Reilly, 1996). Various organizational solutions have been suggested to support ambidexterity (Raisch & Birkinshaw, 2008).

4.2.2. Alignment on Different Organizational Levels

It is important to clearly specify the relevant level of analysis in ambidexterity research, since choices to resolve tensions at one level are often counterbalanced one level down (Raisch & Birkinshaw, 2008). In this study, we focus on two organizational levels and how their organizational contexts can be aligned to promote either form of organizational learning (Lechner, 2006). Amongst the most

discussed levels of analysis are the corporate level and the business level (O'Reilly & Tushman, 2004; Brown & Eisenhardt, 1998; Burgelman, 1991; He & Wong, 2004; Tushman & Romanelli, 1985).

Corporate Level. On the corporate level, various formal and informal coordination mechanisms are used to link and integrate different parts of the organization (e.g., Ghoshal, Korine, & Szulanski, 1994). Centralization refers to the degree to which decision-making power is concentrated in an organization (Aiken & Hage, 1968; Puranam, Singh, & Zollo, 2006). Previous research has suggested that centralization supports exploitative learning (Cardinal, 2001; Jansen, Van den Bosch, & Volberda, 2006; Sheremata, 2000), as it allows for higher degrees of coordination, fosters efficient processes, and enables organizations to realize synergies across existing knowledge stocks (Adler et al., 1999; Miller & Droge, 1986). In an empirical study of the pharmaceutical industry, Cardinal (2001) found that centralization facilitated the exploitation of existing products. The firm's exploitative corporate alignment can also be strengthened by consolidation-related acquisitions and new ventures that build on existing knowledge and capabilities (Burgelman, 1991; Webb & Pettigrew, 1999; Vermeulen & Barkema, 2001). Burgelman (2002) describes such developments inside a firm's core business as induced strategic initiatives and relates them to exploitative learning. Exploitation builds on existing knowledge, products, and customer groups (Benner & Tushman, 2003).

On the other hand, explorative learning requires nonroutine problem solving and fresh thinking that may be better supported by decentralization than centralization (Nickerson & Zenger, 2002; Nord & Tucker, 1987; Sheremata, 2000). In the context of a financial service company, evidence was found of a negative correlation between centralization and exploitation (Jansen, 2006). Decentralization allows for generative learning and lateral communication, thus encouraging the exploratory search for new knowledge (Adler et al., 1999). In comparison to moves towards focus, diversification moves are considered vital in corporate development to avoid inertia and revitalize the firm (Miller & Chen, 1996; Teece et al., 1997). Barkema and Vermeulen (1998), for instance, favor new learning by entering a variety of product and geographical segments. Burgelman (2002) relates expansion into new fields to autonomous strategic processes and

explorative learning. Exploratory initiatives thus often emerge outside the current strategy and allow the firms to enter new product-market environments (Benner & Tushman, 2003).

In order to simultaneously balance the learning environment of both exploitation and exploration - and therefore support ambidextrous learning -, studies suggest the simultaneous pursuit of growth in the core business and expansion around the core business (Helfat & Raubitschek, 2000; Vermeulen & Barkema, 2001; Zook, 2004).

Business Level. Analysis of the business level behavior ascertains how an organization competes with its rivals in the chosen market segments (Ginsberg & Venkatraman, 1985). Porter (1980) described cost leadership as a main strategy typology that requires efficiency in performing existing processes. To achieve high efficiency, organizations should seek stability and control in their operations (Parnell & Wright, 1993). The goal is to improve and refine the current competencies (March, 1991).

On the other hand, differentiation strategy supports search, innovation, and flexibility (Porter, 1980; Adler et al. 1999; Ebben & Johnson, 2005). Innovation represents searching for fundamentally new capabilities, requiring departures from existing skills. This enables the acquisition of emergent customers (Levinthal & March, 1993; Teece, Pisano, & Shuen, 1997).

Mixed or balanced strategies leading to a learning environment for ambidexterity combine elements of both cost leadership strategies and differentiation strategies (Wright et al., 1991; Parnell, 1997). This can be achieved by simultaneously pursuing two fundamentally different business models in the same markets, or addressing the customers with one business model, which includes elements of cost leadership as well as differentiation (Markides & Charitou, 2004).

Inter-Level Balancing and Intra-Level Balancing. An organization's overall orientation towards exploitation and exploration is reflected by its learning activities on the corporate and the business-unit levels (Raisch, Birkinshaw, Probst, & Tushman, 2009). The literature describes internal consistency as an important boundary condition for alignment activities (Miller, 1992; Drazin & Van de Veen, 1985). By definition, pure organizational orientation (one-sided exploitation/one-sided exploration) can only be attained with consistent alignment on both the corporate and business levels as well as between them. On the other hand, ambidextrous orientations are forced to manage some degree of internal inconsistency (Raisch & Birkinshaw, 2008).

Not only does *inter-level balancing* lead to consistent organizational alignments on both the business and the corporate levels, but it also indicates a misfit across the organizational levels (Miller, 1992). Conversely, *intra-level balancing* benefits from consistency across organizational levels (Siggelkow & Levinthal, 2003) while suffering from inconsistent, mixed alignments on the two organizational levels. Hence, by definition, organizations aligning for the rewards that ambidexterity can provide cannot avoid a certain degree of misfit. The alignment patterns organizations use to gain ambidexterity are manifold and depend on firm-specific capabilities and external contingencies (Doty et al., 1993; Ghemawat & Ricart i Costa, 1993). We therefore hypothesize that:

Hypothesis 1.1. Intra-level balancing is related to organizational ambidexterity.

Hypothesis 1.2. Inter-level balancing is related to organizational ambidexterity.

4.2.3. Performance Effects of Balanced Organizational Alignment Patterns

It has been theorized that a strong and clear focus regarding the organizational orientation leads to superior performance (Ghemawat & Ricart i Costa, 1993; Friesen & Miller, 1986). In qualitative studies, however, it has been claimed that an appropriate balance between exploitation and exploration is more likely to lead to beneficial outcomes than emphasizing one at the expense of the other (Tushman & O'Reilly, 1996). He and Wong (2004) predict superior performance for "ambidextrous" firms balancing exploitation and exploration. Focusing entirely on

exploitation discourages the organization from developing (Auh & Menguc 2005). On the other hand, excessive exploration can lead to the abandonment of value-creating processes and the emergence of cost inefficiencies (He & Wong, 2004; Volberda & Lewin, 2003). Hence, profitable growth requires both improving current operations and searching for new capabilities. Recently, there has been strong empirical support for a concurrently high degree of combined exploitation and exploration correlating positively with various performance variables (e.g., Birkinshaw & Gibson, 2004; He & Wong, 2004; Masini, Zollo and van Wassenhove, 2004, Venkatraman et al., 2007). Linking ambidexterity to performance we propose that:

Hypothesis 2. Organizational ambidexterity is related to superior firm performance.

Performance Effects of Intra-Level Balancing. Consistency theory argues that organizations should strive to coherence in order to create multidimensional fit. Therefore, when realigning their organization to changing environmental conditions, these moves should be implemented consistently across all organizational levels (Siggelkow & Levinthal, 2003), since strategy is built by the integration of multiple organizational levels (Dess et al., 1995). In his seminal work, Chandler (1962) supports a relationship between corporate structure and different elements of strategy. Eisenhardt and Brown (1999) find a positive relationship between corporate strategy and business strategy. Effective strategy is built by integration across multiple levels of strategy (Dess et al., 1995). The system approach of fit suggests coherency across multiple dimensions (Drazin & Van de Ven, 1985; Nadler & Tushman, 1997). Inter-level misfit, however, may harm the exchange of knowledge, the creation of synergies, and, ultimately, firm efficiency (Hansen, 2002; Kostova & Zaheer, 1999). When aligning for organizational ambidexterity, inter-level misfit can only be avoided by intra-level balancing. We therefore propose that:

Hypothesis 3.1. Intra-level balancing is related to superior firm performance.

Performance Effects of Inter-Level Balancing. Configuration theory posits that there are a limited number of distinct configuration types on each organizational level. A company can only choose one of these orientations on each level (Meyer, Tsui, & Hinings, 1993). This results in a set of discrete possibilities within a range of coherent organizational forms. Ebben and Johnson (2005) consider strategic purity on every level an important determinant of firm performance. The strategy chosen should allow for inherent consistency (e.g., Doty et al., 1993). These findings were supported by a study using cross-industry data (Thornhill & White, 2007). Several studies posit that organizational choice is discrete (Meyer et al., 1993; Nickerson & Zenger, 2002). Mixed elements of strategy lead to lower performance (Miller & Friesen, 1986; Doty, Glick, & Huber, 1993). When aligning for organizational ambidexterity, discrete choices on both the corporate and the business-unit level can only be achieved by inter-level balancing. We therefore propose that:

Hypothesis 3.2. Inter-level balancing is related to superior firm performance.

Equifinality of Intra-Level and Inter-Level Balancing. There is empirical evidence of different, but *equally effective* paths to ambidexterity. An organization's most promising path to ambidexterity depends on its administrative heritage and the values of its respective leaders (Gibson & Birkinshaw, 2004; Zajack, Kraatz, & Bresser, 2000). In their study on innovation performance, Hess and Rothaermel (2008) attribute this phenomenon to differing internal or external contingency factors, depending on specific organizational environment. Similar organizational performance can be achieved through a range of different strategies, with performance being less dependent on a specific strategy and more on how well it is implemented (Hrebiniak & Joyce, 1985; Katz & Kahn, 1978; Venkatraman, 1990). Thus, some flexibility is available to organization designers when they create organizations for high performance (Child, 1972; Olson, Slater, & Hult, 2005). This is considered evidence of equifinality in the process of establishing learning environments that result in ambidexterity (Gresov & Drazin, 1997).

Von Bertalanffy's (1952) initial concept of equifinality is based on the generation of a steady state from different open systems' initial conditions. It has been adapted for configurational theory, implying the core notion of similar performance outcome across different ideal types of organizational alignment (Hill & Birkinshaw, 2008; Gresov & Drazin, 1997; Miller, 1992). Hence, different patterns of alignment for organizational ambidexterity depend on additional external and internal contingencies. This leads us to the following hypothesis:

Hypothesis 3.3. There is no significant difference between the performance effects of inter-level balancing and those of intra level balancing.

4.2.4. From Static to Dynamic Balancing for Ambidexterity

The continuous reconfiguration of activities to meet internal and external demands is a prerequisite for sustained organizational success (e.g., Webb & Pettigrew, 1999; Tushman & Anderson, 1986). It is argued that ambidexterity becomes a dynamic capability when management is able to intentionally and repeatedly orchestrate the firm assets and resources (O'Reilly & Tushman, 2008; Schreyögg & Kliesch-Eberl, 2007). Ambidextrous designs cannot provide the exhaustive steady-state functionality to deal with the entire range of internal and external contingency factors with which an organization is confronted over time (Raisch & Birkinshaw, 2008). Aligning the firm for learning behavior that leads to simultaneous exploitation and exploration may thus be a task of dynamic rather than static internal alignment (Siggelkow & Levinthal, 2003; Westerman, McFarlan, & Iansiti, 2006). Hence, organizations using ambidextrous designs are especially dependent on adaption to remain competitive over time (Raisch & Birkinshaw, 2008). We therefore conclude that:

Hypothesis 4. Firms with higher levels of ambidexterity show higher switching activity between different patterns of organizational alignment.

4.2.5. Integrated Model

Figure 4-3 provides an integrated view on the hypotheses, we propose in this study. Hypotheses 1.1 and 1.2 link intra-level as well as inter-level balancing patterns to multi-level organizational ambidexterity. Hypothesis 2 predicts positive performance effects of multi-level organizational ambidexterity. Hypothesis 3.1 and hypothesis 3.2 link the two organizational balancing patterns directly to firm performance. Hypothesis 3.3 proposes that the balancing patterns under consideration will have similar performance effects. Hypothesis 4 opens up a dynamic perspective on internal organizational alignment by proposing ambidextrous organizations' tendency to switch between different organizational balancing patterns.

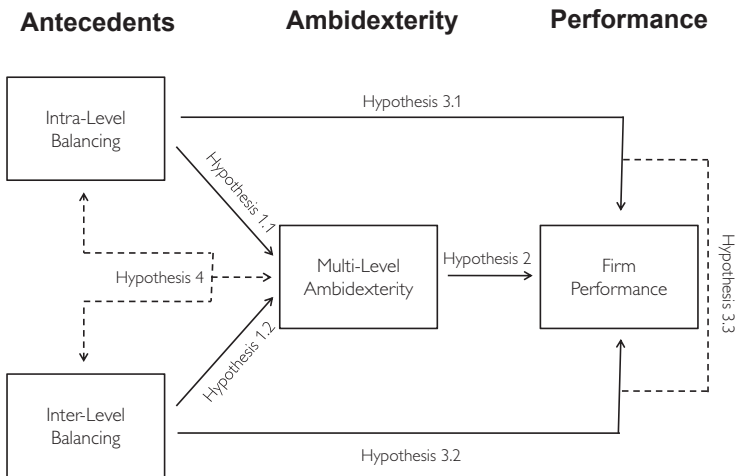


Figure 4-3: Integrated Model

4.3. Methodology

We tested our hypotheses by means of a longitudinal field study of organizational initiatives in the European insurance industry between 1995 and 2005. This industry is particularly interesting, as the 79 firms faced extreme changes in their environmental conditions due to market deregulation, new technologies, changing customer demands, and volatile capital markets (Ackermann, Erdönmez, & El Hage, 2005). Additionally, the European insurance market shows a comparably low industry concentration, which provides an appropriate data set for our study, as there is a significant number of publicly traded firms.

4.3.1. Setting and Data Collection

A single industry study was chosen for its clearly demarked population and controllable environmental characteristics (Frederickson & Iaquinto, 1989). Selecting the European insurance industry as the arena for our empirical research, we constructed an area sample defined by three dimensions (Churchill, 1999). To be included, companies needed (1) a primary SIC code equal to life insurance (6311), non-life insurance (6331), or reinsurance (6371); (2) headquarters located in Austria, Germany, and Switzerland (region 1), the UK and Ireland (region 2), or France and Benelux (region 3), and (3) premiums of at least €100 million by 2005. The full area sample included 98 insurance companies, which were contacted and asked to provide a full set of company reports for the last decade. We received full information from 79 companies or 81% of the population. The results reported in this paper are based on these data.

We collected panel data from archival sources, including company reports and company information databases, to describe firms' alignment activities between 1995 and 2005. The use of archival data seems appropriate as researchers have questioned the reliability of informants' retrospective accounts (Golden, 1992; Miller, Cardinal, & Glick, 1997). Furthermore, previous research on firms' alignment activities have found corporate development's analysis over a ten-year period adequate (Pettigrew, 1985). An extension to a longer period would have been complicated by the poor data available in the prior decades.

4.3.2. Constructs and Measurements

We considered two types of exploration-oriented and exploitation-oriented alignment initiatives as independent variables: on the corporate level, centralization and focus account for exploitative alignment behavior, while decentralization and diversification account for explorative moves. On the business level, efficiency and cost-cutting account for exploitative alignment moves, while innovation and market development account for explorative behavior.

Corporate Level. Initiatives that lead to a higher concentration of the organizational outreach represent shifts towards centralization/focus. The requirements are met when one of the following occurs: (1) the creation of a functional role (i.e. head of HR, CIO/CTO) on the management board; (2) the creation of a central operating role (i.e. COO, VP Operations, shared services center); (3) the merging of strategic business units; (4) the withdrawal from a primary business segment or a country market; (5) a consolidation-related acquisition or a new venture (>1 % of sales); or (6) a consolidation-related large-scale expansion (>5 % of sales). These measures have been introduced in previous studies (e.g., Webb & Pettigrew, 1999; Tushman & Rosenkopf, 1996; Vermeulen & Barkema, 2001).

Conversely, shifts towards decentralization/diversification are represented by initiatives that lead to a lower concentration of power and product specificities. The requirements have been met when one of the following occurs: (1) the abolishment of a functional role on the management board; (2) the abolishment of a central operating role; (3) the division of strategic business units; (4) the entry into a new primary business segment or a country market; (5) a diversification-related acquisition or a new venture (>1 % of sales); or (6) a diversification-related large-scale expansion (>5 % of sales). Several prior studies have used similar measurements for alignment activities on the corporate level (e.g., Tushman & Rosenkopf, 1996; Vermeulen & Barkema, 2001; Webb & Pettigrew, 1999).

Business Level. Shifts towards efficiency/cost-cutting are represented by initiatives that lead to an enhanced utilization of existing production and market potentials. The requirements have been met when one of the following occurs: (1) the annual report mentions a large-scale, company-wide, cost-cutting initiative; (2) a significant reduction in the expense ratio; (3) a significant reduction in the acquisitions ratio; (4) a significant increase in premiums per employee (>10 %); (5) clear efficiency-oriented keywords are used in letters to shareholders. Similar measures were used in insurance studies by He and Wong (2004) as well as Webb and Pettigrew (1999).

Shifts towards innovation/market development are represented by initiatives that lead to the creation of new product and market potentials. The requirements have been met when one of the following occurs: (1) the annual report mentions a large-scale, company-wide innovation initiative; (2) a significant increase in the expense ratio; (3) a significant increase in the acquisitions ratio; (4) a significant increase in premiums (>10 %); (5) keywords in letters to shareholders are clearly innovation-oriented. These measures are in line with earlier studies (He & Wong, 2004; Webb & Pettigrew, 1999)

The above-mentioned expense ratio (operating expenses as a percentage of premiums earned) measures operating efficiency, while the acquisitions ratio (acquisitions expenses as a percentage of premiums earned) indicates the importance of sales and customer service. A change is considered significant if one of these ratios changes by more than two percentage points.

The above-mentioned keywords were collected in line with earlier research (i.e. Hoffmann, 1997). We compiled two lists of 25 efficiency-oriented (i.e. cost, downsizing, consolidation) and 25 innovation-oriented (i.e. growth, product launch, marketing) keywords. All words used in the appropriate context were counted. An event was considered if the following two conditions were met: (1) at least five keywords are mentioned, (2) more than two-thirds of all words are either efficiency or innovation-oriented.

Firm Performance. We use return on equity (*ROE*) as the dependent variable. It is widely recognized as a reliable accounting-based measure of corporate performance (e.g., Ketchen et al., 1993; Porter, 1980). We computed the company ROE as the net income divided by the average equity (Tushman & Rosenkopf, 1996). To control for industry performance differences between the three regions, we adjusted the company-specific ROEs by deducting the respective average market ROE.

Control Variables. In the empirical study, we controlled for possible undesirable effects by including a number of control variables. We considered firm size and firm age, the firm's primary SIC code, the firm's regional code, the legal form, the year of the event, and the type of alignment initiative (e.g., Carroll & Hannan, 2000; Tushman & Rosenkopf, 1996).

4.3.3. Data Analysis

We registered 3,217 events over an 11-year period within the 79 companies (a mean of almost 41 events per company). We summarized the relevant data of each firm in a profile. Following Webb and Pettigrew (1999), we recorded whether an event had occurred or not rather than to which extent an organization conducted these shifts. This allowed the binary coding of events in the year of their implementation.

To distinguish the firms' balancing patterns, we used a "mixing ratio" for each of the two organizational levels (MR_{Corp} and MR_{Bus}), which indicates the relative importance of exploitation-oriented initiatives in comparison to exploration-oriented initiatives for each organizational level. To account for multi-level organizational ambidexterity, we used a mixing ratio that incorporated all organizational alignment moves in a given year (MR_{Comp}).

Auh and Menguc (2005) used a similar procedure. Their approach assumes a continuous relationship between exploitation-oriented and exploration-oriented alignment initiatives. While some researchers share this belief (e.g., March, 1991), others have argued in favor of an orthogonal relationship between exploitation and

exploration (e.g., Katila & Ahuja, 2002). We agree with Gupta, Smith, and Shalley (2006) that no universal argument can be made in favor of either continuity or orthogonality. It is important to consider whether or not the two activities compete for scarce resources and whether or not the analysis focuses on a single domain or multiple domains. In our model, we suggest a continuum that ranges from alignment activities that are exploration-oriented to those that are exploitation-oriented, as both orientations compete for limited resources and managerial time.

4.4. Results

In this section, we present the results of the quantitative analysis. Table 4-1 presents the descriptive cross-sectional, time-series summary statistics of the variables employed. The regression results of the hypotheses testing are reported in Tables 4-2 to 4-6. The hypotheses were tested using pooled ordinary least squares (OLS) regression analysis. We report the parameter estimates, as well as the standard errors and values of the t-statistics in respect of each regression. The probability levels are indicated by asterisks. Triple asterisks indicate significance at the 1% level, double asterisks mark significance at the 5% level, and the single asterisks indicate significance at the 10% level. We included control variables in our examination, which all were insignificant.

Table 4-1 shows the means, standard deviations, and correlation coefficients of the main variables (1995 to 2005). In addition to the standard ROE of the year in which the mixing ratio occurred, we tested for the ROE for the year following the year in which the respective mixing ratio occurred (one year time-lag). The results indicate a positive yet insignificant correlation between exploration and performance over the 11-year period. As expected, there are highly positive correlations between the different mixing ratios and the different performance measures.

Variables	Mean	S.D.	1	2	3	4
1. Mixing Ratio, MR_{Comp}	.52	.34	1			
2. Mixing Ratio Corp Level, MR_{Corp}	.59	.42	.81***	1		
3. Mixing Ratio Business Level, MR_{Bus}	.45	.38	.80***	.19***	1	
4. ROE (market adjusted), ROE_0	.11	10.47	-.04	-.04	-.07*	1
5. ROE, 1-year lag (market adjusted), ROE_1	.21	10.50	-.04	-.02	-.09*	.45**

Table 4-1: Descriptive Statistics/Pearson Correlations

Hypothesis 1 posits that firms' multi-level ambidexterity is associated with intra-level (*Hypothesis 1.1*) as well as inter-level (*Hypothesis 1.2*) balancing. In order to test these hypotheses, we estimated the following equation:

$$\begin{aligned}
 \text{OneSided} &= \alpha + \beta_1 * \text{InterLevel} + \beta_2 * \text{IntraLevel} + \beta_3 * c_1 + \beta_3 * c_2 + \varepsilon \\
 \text{where OneSided} &= \text{abs}(\emptyset[\text{MR}_{\text{Comp}}]^{t=11} - \text{MR}_{\text{Comp}}) \\
 \text{and InterLevel} &= \text{abs}(\text{MR}_{\text{Corp}} - \text{MR}_{\text{Bus}}) \\
 \text{and IntraLevel} &= -(\text{abs}(\emptyset[\text{MR}_{\text{Comp}}]^{t=11} - \text{MR}_{\text{Corp}}) + \text{abs}(\emptyset[\text{MR}_{\text{Comp}}]^{t=11} - \text{MR}_{\text{Bus}}))
 \end{aligned}$$

OneSided represents the absolute distance to the mean of the firms' multi-level mixing ratio from their yearly multi-level mixing ratio over the 11-year period. Hence, high values of *OneSided* imply a one-sided overall alignment, while low values indicate multi-level organizational ambidexterity. *InterLevel* is a measure of the difference between the alignment on the organizations' corporate and the business levels. High values of *InterLevel* indicate a high level of misfit between the different organizational levels, while low levels of *InterLevel* indicate a low level of misfit between different organizational levels. Hence, it is a measure for inter-level balancing behavior. *IntraLevel*, on the other hand, is a measure for intra-level balancing. It uses the added differences between the relevant mixing ratios on the business/corporate level and the mean of the firms' overall mixing ratio over the 11-year period. The various controls, represented by c_1 and c_2 , showed no relevant significances.

The estimation of the relevant coefficients β_1 and β_2 are negative (-0.257/-0.338) and highly significant ($t=-13.45/-9.03$). Both forms of organizational balancing have a strong and significant effect on the occurrence of multi-level organizational ambidexterity. Hypotheses 1.1 and 1.2 are thus strongly supported (Table 4-2).

Hypotheses 1.1/1.2 (Dependent Variable: <i>OneSided</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	.315	.008		37.042***	.000
<i>InterLevel</i>	-.257	.019	-.529	-13.45***	.000
<i>IntraLevel</i>	-.338	.054	-.682	-9.033***	.000

Table 4-2: Time-Series Regression Analysis to Test Hypotheses 1.1/1.2

Hypothesis 2 suggests that firms with ambidextrous multi-level alignment show superior performance outcomes. We defined the degree of balance in firms' alignment patterns using the distance from the mixing ratio to the respective yearly average mixing ratio in the relevant markets. We used a combined measure of adjusted ROE outcomes in Year 0 and in Year 1 to control for the effect of time lags. Formally this can be stated as follows:

$$ROE_{01} = \alpha + \beta_1 * OneSidedYM + \beta_2 * c_1 + \beta_3 * c_2 + \varepsilon$$

$$where ROE_{01} = ROE_0 + ROE_1$$

$$and OneSidedYM = abs(O[MR_{Comp}] - MR_{Comp})$$

As shown in Table 4-3, the coefficients lead to the assumed direction, meaning that higher values of multi-level ambidexterity yield higher performance outcomes. The t-value of -2.298 leads to a p-value slightly lower than 0.05, indicating significant results. Hypothesis 2 is, therefore, supported.

Hypothesis 2 (Dependent Variable: <i>ROE₀₁</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	1.278	1.419		7.382***	.000
<i>OneSidedYM</i>	-6.400	3.770	-.062	-2.298**	.044

Table 4-3: Time-Series Regression Analysis to Test Hypothesis 2

Hypothesis 3.1 posits the superior performance effects of intra-level balancing, while *Hypothesis 3.2* suggests the superior results of inter-level balancing. This set of hypotheses is tested by estimating the level of the combined market-adjusted ROE outcomes in the years 0 and 1, using the relative values of each balancing pattern. *IntraLevel* and *InterLevel* are used to account for the distinct balancing patterns. We also controlled for the balancing patterns' combined effects by incorporating their cross-product into the regression analysis. Additionally, to complement the model, we used the above-mentioned controls to adjust for other possible predictors' unwanted effects.

$$ROE_{01} = \alpha + \beta_1 * IntraLevel + \beta_2 * InterLevel + \beta_3 * c_1 [IntraLevel * InterLevel] + \beta_4 * c_2 + \varepsilon$$

$$where ROE_{01} = ROE_0 + ROE_1$$

$$and IntraLevel = -(abs(\emptyset [MR_{Comp}]^{t=11} - MR_{Corp}) + abs(\emptyset [MR_{Comp}]^{t=11} - MR_{Bus}))$$

$$and InterLevel = abs(MR_{Corp} - MR_{Bus})$$

While none of the controls reached significance in our ordinary least squares pooled time series regression analysis, the explanatory variables for inter-level balancing as well as the one for intra-level balancing loaded highly on performance. The influence exerted by both forms of ambidexterity seems similar

in magnitude and the algebraic signs are correct. The t-values and the related probabilities show significances on a level of 2.5% (*InterLevel*) and 5% (*IntraLevel*). Hypotheses 3.1 and 3.2 are thus supported (Table 4-4).

Hypothesis 3.1/3.2 (Dependent Variable: <i>ROE₀₁</i>)	Unstandardized Coefficients		Standardized Coefficients	t-Value	p-Value
	β	Std. Error	β		
Constant	12.126	2.972		4.081	.000
<i>InterLevel</i>	7.404	3.288	.107	2.252**	.025
<i>IntraLevel</i>	7.152	3.641	.093	1.964**	.050

Table 4-4: Time-Series Regression Analysis to Test Hypotheses 3.1/3.2

In *Hypothesis 3.3*, we posit that there is no significant difference in the different balancing patterns' performance effect. In other words, the balancing patterns are equally effective and largely dependent on the moderating internal and external environments. In order to find comparable groups, we defined criteria to allocate a firm's alignment behavior in one of the following groups for each and every year: "intra-level balancing", "inter-level balancing", and "no balancing/one-sided". The organization was added to the "intra-level balancing" group when the aggregated distance of the mixing ratios from the yearly average mixing ratio was lower than 0.3 (n=60) on both levels. Companies showing "inter-level balancing" were defined as having a distance between the mixing ratio on the business level and the mixing ratio on the corporate level of at least 0.55 (n=88). The rest of the data points were classified as "no balancing/one-sided" and were therefore omitted from this specific analysis. Next, we tested the equality of the performance outcomes' means, applying independent Student's t-statistics. To check for both major assumptions of t-statistics, we controlled for the normal distribution of our data by applying a Kolmogorov-Smirnov test and for the equality of variances by applying a Levene's test. Both of them supported the use of Student's t-statistics.

All tested performance measures were supportive regarding our hypothesis, which refutes performance differences between the two groups. All t-values were below 2. This leads us to the conclusion that there are no significant mean

differences. The following table includes the used dependent variable, as well as the relevant t and p-values. As is shown in the first column, several time lagged and aggregated performance variables were used to account for longitudinal effects. Consequently, Hypothesis 3.3 is strongly supported (Table 4-5).

Hypothesis 3.3 (Dependent Variable: <i>ROE</i> in ...)	t-Value	Degrees of Freedom	p-Values 2-Tailed	Mean Difference	Standard Error of Difference
Year 0	1.130	134	.261	2.288	2.026
Year 1	1.485	121	.140	2.972	2.002
Year 2	.801	109	.425	1.907	2.379
Year 3	1.536	100	.128	3.838	2.498
Year 0 and 1 (aggregated)	.867	122	.388	3.669	4.233
Year 0 and 2 (aggregated)	.730	105	.467	2.714	3.715
Year 1 and 2 (aggregated)	.954	105	.342	3.315	3.475
Year 1, 2, and 3 (aggregated)	.852	102	.396	4.343	5.099

Table 4-5: Student's T-Statistics to Test Hypothesis 3.3

Hypothesis 4 states that higher values of multi-level ambidexterity lead to higher switching activity among different organizational balancing patterns. As independent variable we used *OneSidedAggr*, which aggregates the organizations' tendency towards one-sided multi-level alignment. In order to test the hypothesis, every organization's variation of the balancing patterns was computed using the 11-year data set leading to variable *BalancingVar*. This variable served as the dependent variable to account for the level of the firms' reconfiguration moves over time:

$$BalancingVar = \alpha + \beta_1 * OneSidedAggr + \beta_1 * c_1 + \beta_2 * c_2 + \varepsilon$$

$$where\ BalancingVar = Var(InterLevel) + Var(IntraLevel)$$

$$OneSidedAggr = \emptyset[OneSided]^{t-11}$$

As shown in Table 4-6, the data supports the hypothesis. High levels of aggregated one-sided alignment behavior lead to lower levels of switching. Hence, ambidextrous firms tend to be more willing to switch their balancing patterns over time. The t-value indicates a fair level of significance with a p-level lower than 5%. Hypothesis 4 is thus supported.

Hypothesis 4 (Dependent Variable: <i>BalancingVar</i>)	Unstandardized Coefficients		Standardized Coefficients	<i>t-Value</i>	<i>p-Value</i>
	β	<i>Std. Error</i>	β		
Constant	.159	.023		6.800	.000
<i>OneSidedAggr</i>	-.412	.200	-.232	-2.056**	.043

Table 4-6: Time-Series Regression Analysis to Test Hypothesis 4

4.5. Discussion

4.5.1. Contributions

The goal of this study was to extend March's (1991) original exploration-exploitation model by shedding light on the question of how organizational ambidexterity can be achieved internally and what performance outcomes may be achieved by applying different forms of organizational balancing.

One of the key contributions of our research was the empirical finding that there are different ways to achieve ambidextrous alignment in an organization. Firms' ambidextrous alignment patterns are not only generated by relying on balanced alignments across different organizational levels, but also by relying on strategically "pure" forms on different organizational levels (Thornhill & White, 2007), which, in their interaction, lead to an overall ambidextrous alignment of the organization as a whole. This was an important move towards clearer understanding of how organizational ambidexterity can be achieved. Focusing on a single level of observation leads to only partial pictures of firms' balancing efforts. By spanning two organizational levels, we were able to more fully reveal the activities to balance exploration and exploitation in an organization (Lavie & Rosenkopf, 2006).

In line with other authors (He & Wong, 2004; Masini, Zollo, & van Wassenhove, 2004; Venkatraman et al., 2007), we further found that organizational multi-level ambidexterity has a positive effect on a key measure of organizational performance. We expanded existing research by analyzing organizational alignment activities leading to ambidexterity that encompass multiple organizational levels. Additionally, we analyzed the performance effects of two relevant balancing patterns. Both patterns were able to explain a significant share of organizations' performance variances. This notion supports the concept of organizational equifinality, which implies establishing similar competitive advantages through different strategic and organizational means, depending on different boundary conditions (Gresov & Drazin, 1997). Not only do the factors of the external environment imply certain design choices (McGahan, 2004; Henderson & Clark, 1990), but also internal competencies and constraints.

Scholars as well as managers should renounce the concept of one universal truth (Gioia & Pitre, 1990). The complexity of internal boundary conditions requires different approaches even in different organizations in a single industry (Drucker, 1999). This notion could explain, why "classic" binary contingency studies tend to fail when applied to ambidextrous organizational designs. Different options regarding ambidexterity are complementary rather than mutually exclusive. It is an organization's foremost task to find the idiosyncratic option that best fits its specific situation (Raisch, 2006).

Our findings further show that ambidextrous firms tend to reorchestrate and realign their resources more often than their one-sided peers. Organizational ambidexterity as a dynamic alignment capability (Schreyögg & Kliesch-Eberl, 2007) is thus not only achieved by "cycling" through periods of different one-sided multi-level alignment behaviors as proposed by previous studies (Nickerson & Zenger, 2002; Siggelkow & Levinthal, 2003). Rather, it relies heavily on fast and multifaceted variations in the balancing patterns on different organizational levels. No single design (even if it is ambidextrous) is able to deliver an adequate steady state functionality to deliver superior results over time (Cummings, 1995). Ambidextrous organizations tend to move between different organizational alignment patterns more actively to balance paradoxical requirements (Raisch, 2006). Managers of such ambidextrous organizations tend to be more sensitive regarding the need for continuous realignments to control the flexibility/efficiency tradeoff (Adler et al., 1999).

4.5.2. Limitations and Further Research Directions

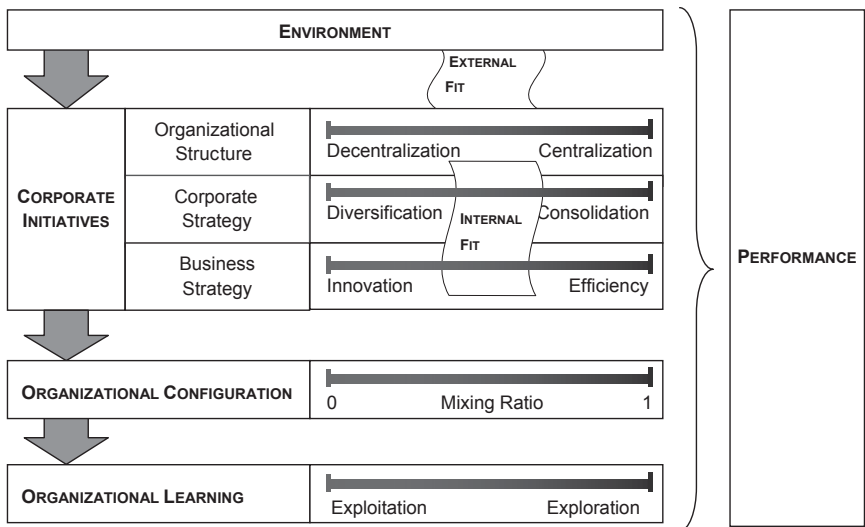
Our study revealed some limitations, which could provide several possible avenues for future research. While we used a broad data set with organizational data from firms with different sizes and from different countries, the study is limited to one specific industry. This could raise issues about the feasibility of generalizing our findings. While the application of pure forms with different orientations on the organizational levels could be appropriate in a relatively stable setting like the insurance industry, our findings could be inappropriate in hypercompetitive or highly volatile settings (D'Aveni, 1994).

While this paper provides significant insights into the multiple facets of internal balancing towards organizational ambidexterity, it lacks a link to the external boundary conditions an organization is confronted with over time. As Zajac et al. (2000) stated, firms' responses to the same environmental shifts are highly dependent on their initial configurations. Owing to the ubiquitous interrelations between environmental conditions and corporate/business strategy, external factors influence the effects of internal alignment activities (Farjoun, 2002). Hence, in a next step, research should try to establish a linkage between different internal patterns of ambidextrous alignment, their reorganization due to environmental effects, and the subsequent performance outcomes.

In addition to the performance effects examined in this study, future research should explore the different balancing patterns' effects on an organization's risk profile. Thornhill, White, and Raynour (2006) argue that pure strategies lead to higher profitability, but also imply a greater risk and higher exit rates than those found in balanced companies. Hence, while experiencing similar performance outcomes, inter-level balancing patterns could imply higher rates of organizational failure due to more risk-taking on the different organizational levels. It could prove valuable to test dimensions of organizational success in addition to the aforementioned survival rate as a dependent variable, such as stock market performance or corporate reputation (Raisch et al., 2008). While internally effective, inter-level balancing with different directions between the levels could confuse the stakeholders.

While we opened an organizational black box and advanced the conceptualization of ambidexterity by implementing a model which incorporates multiple levels, conceptual and empirical understanding of ambidextrous organizational forms on team as well as individual levels still remains limited (Raisch et al., 2009). Previous studies focus exclusively on a macro level of research (e.g., Bushe & Shani, 1991; McDonough & Leifer, 1983; Benner & Tushman, 2003; Tushman & O'Reilly, 1997). Further research should find answers to the question of how individuals affect the development of organizational ambidexterity, and how individuals, groups, and organizations interact in their pursuit of ambidexterity.

CONTRIBUTIONS TO RESEARCH AND PRACTICE



Only the wisest and stupidest of men never change.

(Confucius)

5. Contributions to Research and Practice

The dissertation's last chapter is aimed at two main objectives. In the first part, we summarize and synthesize the theoretical contributions of the three research papers presented in this study. We further present promising avenues for future research. In the second part, we derive recommendations for managers by applying our theoretical findings to an illustrative case study of the Swiss insurer Helvetia Group. Finally, we present some concluding remarks for the overall dissertation.

5.1. Theoretical Contributions

In this dissertation, we focused on alignment initiatives that contribute to the creation of contexts for organizational learning. In the first paper, we explored different forms of organizational alignment on a firm level. We found empirical evidence for performance effects of different one-sided and balanced alignment patterns. In the second paper, we examined how external contingencies moderate the relationship between different balancing patterns and firm performance. We further linked short-term performance effects to the magnitude of change in organizational alignment. The third paper opened the organizational black box of how balanced alignment is achieved internally. We found two distinct balancing patterns, intra-level and inter-level balancing, which both facilitate ambidextrous organizational learning. Detailed accounts of theoretical contributions and occurring limitations can be found in the respective papers. However, in the following paragraphs we briefly synthesize our findings and discuss some broad avenues for future research.

5.1.1. Synthesis of Findings

This dissertation project on organizational alignment activities contributed three core findings to the academic discourse on organizational ambidexterity:

First, alignment activities to support ambidextrous organizational learning are a phenomenon that can be empirically observed. While previous studies fail to provide longitudinal empirical evidence of these alignment moves and their relationship to organizational ambidexterity, we were able to reveal multiple patterns of organizational alignment to ambidexterity and to discern significant differences in their performance effects. We found counterintuitive evidence that alignment patterns for organizational ambidexterity are the rule rather than the exception. Ambidexterity emerges as a dynamic capability and firms that strive for ambidexterity tend to switch between different alignment patterns with the overarching objective of a balanced alignment. Even ambidextrous organizations rely temporarily on a one-sided orientation, if this is required by external or internal contingencies. Consequently, in line with Drucker (1999), it is almost impossible for theory to recommend optimum alignment patterns to management on the basis of a simple cause-effect relationship.

Second, the results on organizational ambidexterity's performance effects are promising, but somewhat conflicting. There is some evidence for the superiority of ambidextrous alignment patterns compared to one-sided alignments. However, legitimate doubts regarding a general superiority of ambidextrous alignments remain because of the relatively weak statistical significance and the uncertainties regarding the underlying causalities. Dynamic adaption is crucial in the quest for success on the marketplace. No single design (even if it is ambidextrous) is able to deliver an adequate steady-state functionality to deliver superior long-term results (Cummings, 1995). However, while extensive reliance on adaptive moves is rewarded in times of disruptive change, it can be costly and increases the risk of organizational failure, if maintained for too long. Ambidexterity should thus be understood as one important alignment option among several possible ones - and organizations have to use the full portfolio over time.

Third, balanced organizational alignment's specific effects are highly dependent on internal and external moderators. By integrating environmental munificence and diverse internal configurations aiming at organizational balance into our model, we made the first move towards a more fine-grained understanding of the phenomenon. We contributed to the current debate by overcoming the single-level perspective on the phenomenon. By spanning two organizational levels, we were able to more fully reveal the activities to balance exploration and exploitation in an organization (Lavie & Rosenkopf, 2006). The different internal and external contingency factors are important determinants for which alignment pattern may be the most appropriate for organizations under given contextual conditions.

5.1.2. Future Research Avenues

The limitations we discussed in the three research papers shed light on four important sectors, on which future studies should concentrate:

First, future studies should apply a broader perspective on organizational performance. Important measures include an organization's risk profile, stock market performance, and corporate reputation. Different balancing pattern may have differing performance outcomes, when alternative dependent variables are used.

Second, we advanced the conceptualization of ambidexterity by implementing a model which spans multiple levels. However, the conceptual and empirical understanding of ambidextrous organizational forms on the team as well as on the individual levels remains limited (Raisch et al., 2009). Further research should find answers to the question of how individuals affect the development of organizational ambidexterity, and how individuals, groups, and organizations interact in their pursuit of ambidexterity.

Third, future studies should continue to pursue a longitudinal approach to investigating organizational ambidexterity. This study reveals that only longitudinal designs are able to fully reveal the dynamic component of

organizational ambidexterity. Thus, cross-sectional studies lack the ability to fully capture the phenomenon. While existing studies distinguish between static and sequential ambidexterity, longitudinal studies may reveal that the same organizations use both approaches over time. We provide some evidence for these dynamics in our study, but future research should continue along these lines to provide a more comprehensive understanding of organizational ambidexterity.

Fourth, while we capture “exploitation-oriented” and “exploration-oriented” alignment activities in our study, we do not measure the actual learning activities themselves. We implicitly assumed that a certain type of corporate initiative would trigger a respective learning behavior. While our focus was on alignment behaviors’ performance effects, future studies may open the “black box” of organizational learning by measuring exploitative and exploratory learning processes. This would, however, require moving from archival data to primary data acquired through a field study based on questionnaires or interviews. While such a study design will reduce the researcher’s ability to analyze longitudinal developments, it may allow for a more detailed investigation into the interrelations between learning processes, organizational alignment initiatives, and performance outcomes.

5.2. Managerial Implications

The following case study provides an exemplary overview of a typical midsize European insurance group's pursuit of optimum organizational alignment. It is based on the same time period as the longitudinal data set used in the quantitative analyses of the three dissertation papers. The information was gathered in the context of an intensive research partnership with "Helvetia Group" from 2005 until 2009. More than 20 interviews with the company's top management were conducted and analyzed together with various documents on the organization's recent history. We used the triangulation method, which proposes the use of multiple accounts to study a certain phenomenon (Yin, 2009). Based on the case study, we discuss the recommendations for practitioners, that can be derived from the three papers in this thesis.

5.2.1. Illustrative Case Study "Helvetia Group's Pursuit of Organizational Balance"

In May 2006, Erich Walser, CEO of the Swiss insurer Helvetia Group at the annual shareholders' meeting announced the best yearly result since the company's founding. Just three years before, the first annual loss in the company's 150-year history had been reported at the very same occasion. In this case study, we analyze the origins of the crisis and the success factors behind the company's comeback from an organizational perspective. The efforts of the firm's executive management to establish an organizational balance between a decentralized orientation with strongly autonomous company branches and a centralized coordination take centre stage. In the first section, we briefly introduce Helvetia Group. We then present the company's organizational alignment moves over the past decade. In the third section we then analyze in detail how Helvetia achieved a balanced organizational platform for further profitable growth through deliberate adjustments in individual functional domains.

Helvetia Group. The Helvetia Group is a midsize European insurance company with its headquarters in St. Gallen, Switzerland. The group's 2005 gross written premiums of 5.2 billion Swiss Francs are distributed equally amongst the fields *life* (pension funds and life insurance) and *non-life* (vehicle, liability, property and

accident insurance). Aside from the classical range of products, the company also offers specialized insurance services such as transport insurance and reinsurance. The Group employs around 4,600 staff in six European countries.

The Swiss domestic market accounts for somewhat over half of the Group's entire turnover. Switzerland is a lucrative market with a high profit margin, which is at the same time dominated by the market leaders Swiss Life, Winterthur, and Zurich Financial Services. Together, the three players make up around two thirds of the life and one third of the non-life insurance business. As fifth largest company, the Helvetia Group is an important representative in the field of medium-sized providers. The domestic market aside, Helvetia is active in five further European foreign markets. These include the rather mature markets of Germany, Austria and France, which – whilst in part provide for good returns – offer only limited potential for further growth. In the expanding markets Italy and Spain, development opportunities arise from continuing market consolidation. Helvetia's competitive position in foreign markets varies considerably from country to country. In general, the company belongs to the field of small to medium-sized players with a clear strategic focus on quality and customer service. As Christophe Niquille, head of Helvetia's corporate center, clarifies: *“In the foreign markets, we operate in different business environments, encounter different market conditions and adopt totally divergent market positions. The connecting element is a clear differentiation in the area of quality.”*

The firm's culture is strongly shaped by the top executive committee led by Erich Walser. During his fifteen years tenure, he has attached great importance to leading the group both consensually and consistently: *“In most cases, much crockery gets smashed, but little achieved with too radical kinds of intervention. We have always achieved the best results when measures were adopted by all country branches.”* This philosophy has not always resulted in recognition. In the boom period at the turn of the century, some analysts criticized the group's cautious attitude towards new concepts such as bancassurance. Nevertheless, strategic continuity has, in the long term, saved the Group from dangerous failures persistently experienced by other insurance companies. The only minor personnel turnover in central managerial positions plays an important role in ensuring the firm's stability. As chief executive Erich Walser elaborates: *“The majority of the*

executive board has been employed in the company for many years. One trusts one another and is familiar with the strengths and weaknesses of the other. The aim of the executive leadership is to set general conditions that play to the strengths whilst not making the weaknesses a problem.”

Helvetia Group's History. Helvetia Group emerged from two historical strands dating back to the 19th Century. Founded in St Gallen in 1858, Helvetia Insurance was almost exclusively engaged in the non-life domain and quickly expanded into various foreign markets. Established twenty years later in 1878, the Basel-based insurer Patria restricted its focus to the life insurance and pensions business in the Swiss domestic market.

By the early 1990s, both companies could reflect upon successful development. At the same time, significant changes were taking place that originated from the liberalization of the Swiss insurance market. The newly initiated free competition led to a growing price pressure. Small firms like Helvetia and Patria did not possess the crucial size necessary to generate returns to scale and create a competitively sound cost structure. Liberalization also facilitated differentiation regarding the range of products offered. Before, legislation had set out which products and services a provider could sell on the market. Afterwards, competitors could offer an array of services from one source. Neither Helvetia nor Patria could take advantage of this promising possibility: Helvetia's consultants could not offer life insurance and Patria didn't distribute any non-life products. Problems also surfaced in relation to the foreign markets: whilst Helvetia reached its limits as a result of its small size in numerous markets, Patria's judicial structure as a cooperative impeded it from expanding into attractive foreign markets.

In reaction to the changes in the market environment, Helvetia and Patria initially entered a strategic partnership in 1992. The success of this cooperation resulted in the 1994 decision to fully merge the two entities. In 1996, the fusion became legal and led to a row of challenges for the management team of the new Helvetia Group. Whereas much was still arranged on an informal basis during the period of structural alliance, unitary market presence and collective structures now had to be agreed upon for the new company. Aside from some coordination problems, the

main challenge concerned the integration of two very different business cultures. Patria's team spirit orientated cooperation culture came face to face with the more dynamic and internationally orientated Helvetia. Peter Bächtiger was responsible for the integration of the IT-System at the time and describes the process of change: *"The cultural integration was long and arduous. Metaphorically speaking, we plunged the knife a little deeper in each week for half a year. The approach cost energy and time but led to collective structures that were characterized by high acceptance and durability."*

Divisionalization and Growth (1996-2001). Up until the fusion, both Helvetia and Patria were functionally structured and thereby efficiency-orientated in their operations. In a regulated and stable environment, these structures made possible a gradual improvement of operations aimed at standardized and steadfast services. Fusion prompted the question of how the combined firm could be more flexibly arranged in order to capitalize on new growth potential without jeopardizing the hitherto existing efficient operations. As the potential for growth was restricted in Switzerland's highly saturated domestic market, group management decided to switch to a divisional arrangement structured by country. Firms in the individual countries were given a high degree of autonomy and were – within a given financial framework – responsible for the entire operative business. The countries' chief executives managed the respective markets' operations to a large extent independently and, as simultaneous members of the executive board, significantly determined the Group's fortunes. Executive board meetings did discuss Group-wide issues but rarely formulated strict guidelines. Chief executive Erich Walser highlights the narrow confines of central control: *"The most important role at Group level is the setting of realistic goals. What's more, head office has only limited opportunities to directly influence the firm's success."*

The considerable delegation of decision making competences to the decentralized level had so far stood the test of time. The high degree of autonomy strengthened the entrepreneurial spirit in the country branches and the own initiative of staff at all levels. The higher flexibility at local level enabled an extensive alignment of product range and market presence with customer needs and legal parameters. Each country could establish optimal structures and processes for the respective market realities. All country branches had, for example, different IT platforms and

distribution channels at their disposal. Stefan Loacker, the then strategic head, who was chosen as new group CEO in 2007, emphasizes the merits of this decentralized approach: *“Limiting central control to financial aspects was a blessing for the group's success. The comprehensive outcome responsibility boosted the motivation and engagement of the country branches. Each country strives for a good result.”*

The flexibility and innovation achieved through divisionalization in the countries was also reflected in the Group's business performance. The Group's organic growth increased considerably with a year on year average growth rate of over 7 percent between 1996 and 2001. In addition, solid profits were generated in the first few years following the fusion and the Helvetia Group was chosen by the finance magazine FOCUS MONEY from a pool of 120,000 corporations as one of the top 50 best managed companies.

Reintegration and Efficiency (2002 - 2006). During the course of the capital market crisis of 2001, the disadvantages of an extremely decentralized arrangement became increasingly evident. In the boom phase of the late 1990s, the firm's earnings were strongly determined by profits generated by capital market investments. The continuously growing profits resulting from the booming capital market concealed the actual insurance business's financial situation. When the stock market bubble burst in 2001, the high capital revenue suddenly fell away and revealed the weaknesses of the operative business. Without the significant contribution from the investment business, the Helvetia Group ran into the red.

The low level of control and coordination of the country branches contributed considerably to the operative problem. Individual divisions had developed a life of their own and largely evaded control from head office. Some country branches attempted to hide their inflated cost structures with highly speculative assets on the equity market and risk-entailing underwriting. Chief executive Erich Walser ascertained: *“We had too many self-proclaimed risk and asset experts in the country branches; in truth, they were not.”* Furthermore, the synergy potential between countries was not capitalized upon. The lack of coordination within the group as a whole resulted, for example, in the Austrian subsidiary "Anker" only

being able to put an information system they had installed into operation after costly adjustments had been made. The cost of the project put a strain on the performance of the Austrian division for many subsequent years.

The financial year 2002 saw the first annual loss in the almost 150-year history of Helvetia. As a consequence, company management exhaustively reflected on the disadvantages and constraints of a too pronounced decentralization. Since 1996, particularly the entrepreneurial freedom and flexibility of the divisions had been strengthened by divisionalization; improving coordination and the realization of synergies across divisions now took centre stage. This demanded a renewed organizational transformation aimed at strengthening the opportunities for control by head office.

Those on Helvetia Group's executive board were aware that organizational change had to be approached with caution if the improvements achieved in the previous period of change were to be upheld. The merits of a decentralized orientation – the large degree of personal responsibility, the entrepreneurial spirit and the country-specific knowledge of its subsidiaries in particular – had become an important success factor for the Helvetia Group. Peter Bächtiger explains the challenge: *“A radical change to a strongly centralized management structure would have also entailed the total replacement of both top management and the country executives. The success of a firm is notably determined by its actors. Our management is predominantly made up of people whose organizational understanding is closely tied with the notions of federalism and autonomy.”* The executive board consequently decided to gently strengthen the central elements of the organization in order to achieve a healthy balance between head office and the country branches. True to the principle of subsidiarity, responsibility and decision-making power was to remain at the lowest level possible. The principle would however be purposefully violated if coordination at a higher hierarchical level promised benefits. As Stefan Loacker emphasizes, the aim was to combine local flexibility with central efficiency: *“Helvetia Group's fundamental orientation is still based on the purely financial control by the head office. Yet we attempt to purposefully discard this tenet where advantages for the company as a whole are foreseeable.”*

In order to put this principle into practice, the executive board had to be reorganized. From now on, the group board was composed of representatives from the countries with the highest gross premiums written alongside the most important central functions (CFO, CIO and head of HR). Central and decentralized interests were represented on the executive board on equal terms. In addition, a Corporate Centre was established to aid the chief executive with cross-border coordination and the implementation of strategic initiatives. Yet the most important changes to the realization of the vision of organizational balance affected the individual functional domains of the firm. The optimal mix of decentralized autonomy on the one hand and central control and coordination on the other was sought for each function. This adaptation followed step by step and took the respective requirements and circumstances into consideration. In the following sections we focus on the level of individual functions in order to analyze and highlight the concrete organizational adjustment measures and the associated decision making processes in detail.

Helvetia's measures for attaining an organizational balance which combines both the advantages of autonomy and coordination particularly ranges over four departments: (1) Asset and Risk Management, (2) Product Development, (3) Marketing & Sales, and (4) Information Technology and Administration. We now turn to presenting the most important measures and their implications for the firm.

Asset and Risk Management. The management of financial assets occupies a central role in the insurance business. Whilst this activity potentially generates high profits, risky investments could undermine the whole group's viability. In the boom period of the late 1990s, the investment business was the largest contributor to Helvetia's profits as well as those of many of its competitors. With the share price fall at the turn of the century, the investments made by country branches led to high losses and write-downs. It was hence imperative for the Helvetia Group's management team to undertake adjustments in this area.

At an executive board meeting at the beginning of 2001, CEO Erich Walser revealed – in presence of the country directors – that the management of the investment portfolios in the countries did not reach the desired standards.

Following lengthy discussions, the country directors announced that they were prepared to back the decision to undertake critical changes in this area. The countries forewent henceforth a local portfolio management and limited their activities in the financial domain to the purely operative Controlling and Accounting functions. A central entity for the management of investments was developed for the Group as a whole. With around 30 billion Swiss Francs being employed, consolidation offered the possibility of considerable cost savings – lower fees charged by the banks involved is one example. In addition, the consistent diversification of investments facilitated the company's more professional balancing of risk. The higher competency and the potential specialization of experts at the head office contributed to a successful investment politics.

Helvetia Group adopted a similar strategy concerning the management of insured risk. "Passive" risk management – understood as the safeguarding by way of underwriting reinsurance contracts is now conducted only centrally. CEO Erich Walser puts forward the merits of centralization: *"Passive risk management has clearly become a competence of head office: this we adhere to 100 percent. Expertise can be clustered and through higher volume, we also observe considerably better conditions by reinsurance."* In contrast, responsibility for "active" risk management – the careful underwriting of insurance contracts, remains a competence of the decentralized country units. Nevertheless, head office also gives underwriting guidelines that must be implemented by the country branches. Operating overseas, one focuses, for example, on provincial cities and rural areas and avoids big cities due to the higher risk potential. The appointment of an actuary for the Group has, in addition, strengthened central control further. The actuary checks new product concepts according to their risk profile before they are introduced to markets in the countries. Risky proposals would thus in the future be prohibited from the outset.

These measures have considerably enhanced the ability of head office to control and coordinate the activities of the group; risks can be better monitored, coordination improved and costs reduced. At the same time, the countries' flexibility in making and quickly realizing decisions declined. Representatives of the country branches therefore point to the limitations of centralization. Fabio de

Puppi, CEO in Italy, explains for example: *“The additional know-how of head office is undoubtedly an important factor for ensuring success. Yet head office cannot comprehend the occurrences in each individual country precisely. Moreover, having to send everything to head office and waiting for a reply hardly lends itself to innovation. If and where central responsibility makes sense must therefore be carefully considered.”* The obvious centralization that took place in the field of asset and risk management was hence not a archetype for the following adjustments in further departments. As we shall see, changes in other areas were more targeted and subtle in order to maintain a high degree of decentralized responsibility in spite of strengthened coordination.

Product Development. Helvetia Group’s focus on the private customer business required a high degree of adjustment to considerably fragmented local markets. Cross-border solutions – commonplace for industry insurers like Allianz, Zurich or Winterthur – were, if anything, an exception for Helvetia. National legal and social systems vary considerably in fundamental areas. As a result, the needs and demands of customers are also distinct. An extensive standardization would contradict the company’s aim of offering differentiated products tailor made to the needs of the customer. Strategy director Christophe Niquille explains: *“We must adapt our products to the needs of the customer and not the other way around. In Spain for example, burial insurance covering funeral expenses is in high demand. A comparable product would find no market in Switzerland. Nevertheless, we try – wherever the possibility arises – to exchange experiences and best practices across borders.”*

Direct coordination between individual country branches and a thorough exchange of experiences was supported. It was not the goal to actively interfere here in the creation of new products by way of central specifications. Instead, head office strived to support the lateral exchange between countries. That which was developed and successfully introduced in one country, was to flow more regularly into the project planning of other regions. The company achieved this aim through coordination meetings every six months at which product concepts were presented and exchanged. In addition, product coordination was introduced at the company’s headquarters. It was continuously informed by the countries about current projects and forwarded the information to potentially interested parties in other countries.

This knowledge transfer showed initial success: at present, around 10 percent of newly launched products are transferred to other units. One example is an innovative pension fund initially developed for the German market which has now also contributed to revenue growth in Austria. On the informal level, the impact of increased exchange is evident in the heightened telephone contact between the countries' senior management, their understanding of each other as partners within a company with identical goals and their willingness to learn from each other about innovative business ideas.

Marketing and Sales. The responsibility for concrete marketing measures has been traditionally assigned to the individual countries in order to account for local particularities. Despite its decentralized orientation, the Group has, in the past, repeatedly attempted to seize upon seminal developments by means of centrally directed strategic initiatives. A campaign with the motto "Swissness" for example aimed to utilize the positive attributes of the group's home country for the company as a whole. A further initiative targeted the 50 plus. Nevertheless, both centrally controlled projects had to grapple with similar problems. Whilst some countries successfully implemented the measures, the specifications were either reluctantly or not at all followed in other markets. Such behavior was justified by reference to regional particularities that could put into doubt the central initiative's success. The central coordinators' lack of discretionary power in marketing meant that the implementation in the countries could not be enforced.

The basic principle of decentralized autonomy and decision making in marketing was breached for the first time at the beginning of 2006 in order to implement a far-reaching initiative. In the context of an analysts' call, Erich Walser presented a uniform market strategy for the group. Following years of strongly differentiated market appearances in the individual countries, the new name "helvetia" and the associated visual communication ensured for uniformity across Europe. This step aimed at uniform standards, cost savings, and improved visibility. Whilst changes in Switzerland and Spain (respectively relinquishing the add-ons "Patria" and "Previsión") were relatively moderate, the omission of the well-known Austrian "Anker" brand required a lot of attention. This decision was – despite the significant implications for the countries – made without further problems. In contrast to earlier projects, head office took over the substantial costs for the

visibility campaign. Then Austria CEO Stefan Loacker is content with the outcomes: *“We perceive this as an investment by the group in the country markets from which the group shall heavily profit in the long run”*.

Aside from marketing, sales was also subject to wide-ranging thoughts regarding coordination. In particular, the considerations concerned the building up of a central, Europe-wide entity that would be responsible for the definition and development of life insurance products. The continuing high diversity of European foreign markets – resulting from differing legal systems, data security guidelines, and sales channels – had stood in the way of implementation. Hence, the Corporate Centre foresees greater opportunities for process models supporting a group-wide optimization of sales and consulting processes without intervening too greatly in the decentralized organization of this functional domain in the near future.

Information Technology and Administration. Helvetia Group’s information technology was traditionally strongly decentralized. Each country selected and implemented its own hardware and software solutions. The company had, for example, seven different systems for the settlement of business transactions. In the past, attempts to introduce cross-country systems failed because of technical problems such as the migration of data pools and in part because of opposition in the countries. In addition, strategy head Christophe Niquille points to the high complexity of information technology in the field of insurance: *“In contrast to other branches, there are no standard solutions on the market in the insurance arena that would make our workload lighter. We must thus attempt to optimize our own solutions – especially when considering that IT problems in our branch potentially present a huge risk.”*

In 2001, the position of central IT coordinator was created in order to improve the existing systems and to make better use of both the until now largely neglected potential for synergies and the transfer of experience. The coordinator heads a newly constructed discrete firm named “Helvetia Consulting AG”. Yet this legally independent entity only works for around 50 percent for the Group and generates the rest of its turnover with external customers. The entity consequently stands in competition with external consultants. Whilst Helvetia Consulting is well received

internally for its well-grounded knowledge of the company, it does not possess discretionary power in the concern. The IT coordinator Peter Bächtiger clarifies: *“In order to implement an idea I must, in particular, convince. It is otherwise as if I were to attempt to compete against those responsible for the country branches with a toy gun whilst they had an entire armory at their disposal.”*

The IT coordinator is often incorporated as expert because of his specialist knowledge and acts, in critical cases, as project manager. The coordinator inures here to the benefit of being a long-standing manager with an intimate understanding of the company and enjoys the trust of those responsible for IT. Various other activities lead to a stronger reconciliation of the group-wide IT undertaking. For example, the coordinator receives a detailed three-year strategy for forthcoming investments from all decentralized IT authorities annually. He then analyses these declarations of intent in order to identify potential synergies. This approach led, for example, to better contract conditions with suppliers. In addition, a central software inventory was built up to enable the further identification of potential synergies. A license obtained in one country could, as a result, be transferred to other markets at little cost. A yearly meeting of the countries' IT directors contributes further to informal exchange. Coordination success was also achieved for the first time in bigger projects. The common e-business platform was, for example, centrally developed and implemented. One further example is the development and successful implementation of a common claim settlement system by the Swiss and German subsidiaries.

Whilst strengthened coordination generally has a positive performance effect in the field of IT, the synergy potentials have not yet been entirely utilized. While adherence to the fundamentally decentralized orientation is not challenged, the group is thinking about ways of providing the IT coordinator with some kind of managerial authority or implementing IT expense ratios across the country branches.

Aside from the field of IT, fundamentally decentralized operative responsibilities are complemented by centralized elements in HR management. It concerns itself with, for example, a centralized system for the analysis of key personnel's further

potential and the retention of valuable employees. Implementation in individual countries was completed in 2004. Furthermore, all managers of the Group go through a standardized training program which takes place in Switzerland. This form of coordination – planned and implemented by a team of five in St. Gallen – is perceived to be cost saving and effective and is hence to be pushed further in the future. In contrast, the operative personnel management remains the responsibility of the country branches.

Outlook. Efforts by the Helvetia Group to achieve an optimal balance in the realm of organizational development are affirmed by successful business outcomes. The after tax earnings of over 300 million Swiss Francs in 2005 were the best result in the company's history, which could even be topped in the following years. A central finding of the past years is that a balance between the extremes of centralization and decentralization must be continuously and actively established. The far-reaching delegation of responsibility to subdomains is necessary for the Group's flexibility and entrepreneurial strength. Yet well-balanced centralization is required to preserve the company's profitability and guarantee the capital employed. Strategy manager Christophe Niquille sums up the challenges ahead: *"The question of how much centralized involvement is ideal is crucial to our considerations about the future. One example is the discussion about the question of whether an expanded corporate management incorporating all the heads of the country branches should be established, meeting regularly alongside the Group's corporate management."* It can be expected that Helvetia Group can build a real competitive advantage with their active balancing efforts; an advantage that not only brings short-term improvements but also ensures the sustainable success of the company.

5.2.2. Recommendations for Practice

Theoretical findings of the three research papers are well reflected in the "Helvetia" case study. The following five short recommendation can be derived from both our quantitative study's empirical findings and the case evidence:

1.) Take into account the company's initial alignment

Helvetia's pursuit of organizational balance was facilitated and restricted at the same time by the company's idiosyncratic characteristics such as its culture, leadership structure, and incentive systems. Taking into account this initial alignment of the company led to beneficial results. While ideal types may exist and statistical evidence for one or the other type can be found in large-sample studies, each company's specific situation and capabilities may have a significant impact on whether these ideal types can be successfully applied.

2.) Balance within distinct levels as well as across levels

Helvetia managed to achieve ambidextrous learning by balancing their organizational alignment and activities at distinct levels as well as across these levels. Aligning for ambidextrous organizational learning is a complex task, which cannot be mastered with simple solutions at one organizational level. Organizations need a comprehensive alignment strategy that spans multiple levels and considers the different functional domains and business divisions of the company.

3.) Be sensitive to environmental conditions

Helvetia considered the external environmental conditions by sensitively adapting its organizational alignment to the changing competitive landscape. The organizational alignment's performance effects were thus positively moderated by the environmental conditions. If firms are less responsive to environmental conditions and changes, they may not be able to reap the benefits of organizational alignment. Companies thus need to develop capabilities in market screening, competitive analysis, and scenario planning to better understand external influences on their alignment behavior.

4.) Use environmental challenges as a lever for change

When environmental challenges occurred, Helvetia not only implemented the necessary steps, but often took it to the next level. Senior management fought internal opposition by using the external pressure as a lever for internal change.

Shifts in organizational alignment behavior may thus be best implemented in the face of environmental risk. By creating a "burning platform", companies may be able to shift the current organizational alignment towards a better alignment with future market conditions.

5.) Act dynamically and proactively

Helvetia acted fast, when new challenges arose. Even in times of unprecedented success, the organization modified its organizational alignment to prepare for possible future challenges. While it may be more difficult to change even before "burning platforms" are truly felt within organizations, they may represent the royal road towards success in organizations.

5.3. Conclusion

In sum, this dissertation presented various theoretical contributions and practical implications on how organizations dynamically align themselves for ambidextrous learning across multiple organizational levels and in differing organizational contexts. While this dissertation represents an important step ahead, a lot remains to be done to fully grasp the phenomenon of organizational ambidexterity. It is our hope that this dissertation will spark new interest in this topic and stimulate further activity in the field.

6. References

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