

**HHL**LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT

Dissertation

Scenario-Based Strategic Planning and Strategic Management in Family Firms

Christian Brands

Email: christian.brands@hhl.de

Abstract:

This cumulative dissertation covers the concepts of scenario-based strategic planning and strategic management in family firms over five articles. The first article gives an overview of the cumulative dissertation explaining the research gap, approach and contribution of the dissertation. The paper highlights the two research areas covered by the dissertation with two articles focusing on scenario-based strategic planning and two on strategic management in family firms. The second article is the first of two focusing on scenario-based strategic planning. It introduces and describes a set of six tools facilitating the implementation of scenario-based strategic planning in corporate practice. The third paper adapts these tools to the financial management and controlling context in private companies highlighting the tools' flexibility in managing uncertain and volatile environments. The fourth article is the first of two focusing on strategic management in family firms. It analyzes organizational ambidexterity as a factor explaining family firm performance. The article shows, that a high level of organizational ambidexterity in family firms leads to a higher family firm performance. The final paper concludes the dissertation examining the tendency of family firms to focus on capability exploration or resource exploitation over different generations managing the family firm.



SCENARIO-BASED STRATEGIC PLANNING AND STRATEGIC MANAGEMENT IN FAMILY FIRMS

Dissertation submitted in partial fulfillment of the requirements for the degree

Doctor of Economics
(Dr. rer. oec.)

at
HHL Leipzig Graduate School of Management
Leipzig, Germany

submitted by

Christian Brands, M.Sc.

Leipzig, August 23rd 2013

First Assessor:

Prof. Dr. Torsten Wulf

Philipps-University Marburg
Chair of Strategic and International Management

Second Assessor:

Prof. Dr. Stephan Stubner

HHL Leipzig Graduate School of Management
Dr. Ing. h.c. F. Porsche AG Chair of Strategic Management and Family Business

TABLE OF CONTENTS

TABLE OF CONTENTS	I
LIST OF TABLES.....	IV
TABLE OF FIGURES	V
TABLE OF ABBREVIATIONS	VII
I. SCENARIO-BASED STRATEGIC PLANNING AND STRATEGIC MANAGEMENT IN FAMILY FIRMS	1
1. Research Question and Goal of the Dissertation	2
2. Summary of Papers	8
2.1. Contribution	12
2.2. Implications and Further Research.....	16
II. SIX TOOLS FOR SCENARIO-BASED STRATEGIC PLANNING AND THEIR APPLICATION	25
1. Introducing tools one and two: The framing checklist and 360° stakeholder feedback.....	27
1.1. The framing checklist.....	27
1.2. Description of the framing checklist	29
1.3. 360° stakeholder feedback	36
1.3.1. Existing perceptions, blind spots and weak signals	37
1.3.2. Description of 360° stakeholder feedback.....	38
1.4. Evaluation of the framing checklist and 360° stakeholder feedback.....	44
2. Applying frameworks one and two: The framing checklist and 360° stakeholder feedback in the European airline industry	46
2.1. Introduction.....	46
2.2. The framing checklist.....	46
2.3. 360° stakeholder feedback	48
3. Introducing tools three and four: The impact/uncertainty grid and the scenario matrix	53
3.1. The impact/uncertainty grid	53
3.2. Description of the impact/uncertainty grid.....	55
3.3. The scenario matrix	57

3.4.	Description of the scenario matrix	62
3.5.	Evaluating the impact/uncertainty grid and the scenario matrix.....	67
4.	Applying frameworks three and four: The impact/uncertainty grid and the scenario matrix in the European airline industry	69
4.1.	Introduction.....	69
4.2.	The impact/uncertainty grid	69
4.3.	The scenario matrix	71
5.	Introducing tools five and six: The strategy manual and the monitoring cockpit	87
5.1.	Introduction.....	87
5.2.	The strategy manual	87
5.3.	Description of the strategy manual	91
5.4.	The scenario cockpit.....	95
5.5.	Description of the scenario cockpit	96
5.6.	Evaluating the strategy manual and the scenario cockpit.....	99
6.	Applying frameworks five and six: The strategy manual and the scenario cockpit in the European airline industry	102
6.1.	The strategy manual	102
6.2.	The scenario cockpit.....	105
III. SZENARIOBASIERTE STRATEGISCHE PLANUNG IN VOLATILEN UMFELDERN		111
1.	Einführung: Unternehmen agieren in einer zunehmend volatilen Umwelt.	112
2.	Volatilität als Herausforderung für die strategische Planung.....	112
3.	Szenariobasierte strategische Planung als Lösungsansatz für Planung unter Volatilität.....	114
3.1.	Grundlagen der szenariobasierten strategischen Planung	114
3.2.	Prozess der szenariobasierten strategischen Planung.....	115
4.	Zusammenfassung.....	122
IV. ORGANIZATIONAL AMBIDEXTERITY AND FAMILY FIRM PERFORMANCE		125
1.	Introduction	126
2.	Theory and Hypotheses	127

3. Methodology	131
3.1. Research Design and Sample Generation	131
3.2. Measures.....	133
4. Analysis and Results.....	135
5. Discussion and Conclusion	139
V. THE IMPACT OF SUCCESSION GENERATION DISCOUNT IN FAMILY FIRMS: EXAMINING NONLINEAR EFFECTS ON EXPLORATION AND EXPLOITATION	150
1. Introduction	151
2. The RBV and the importance of exploration and exploitation	154
3. The importance of exploration and exploitation in family firms.....	156
4. The impact of generational involvement on exploration and exploitation in family firms	159
5. Methodology	164
5.1. Constructs	165
5.2. Results	167
6. Discussion.....	172
6.1. Implications for theory and practice	175
6.2. Study limitations and future research	176
6.3. Conclusion.....	177
TABLE OF APPENDICES.....	X
APPENDICES.....	XI
EIDESSTATTLICHE VERSICHERUNG	XVI

LIST OF TABLES

Table 1: Pearson Correlations Analysis and Descriptive Statistics	136
Table 2: Regression Analysis using Organizational Ambidexterity as Dependent and Family Power, Experience, and Culture as Independent Variables.....	137
Table 3: Regression Analysis using Firm Performance as Dependent and Organizational Ambidexterity as Independent Variable.....	138
Table 4: Descriptive Statistics and Correlations.....	168
Table 5: Results of Regression on Exploration	169
Table 6: Results of Regression on Exploitation	170

TABLE OF FIGURES

Figure 1: Structure of the dissertation	5
Figure 2: Overview of dissertation results	13
Figure 3: Six-step scenario-based approach to strategic planning.....	28
Figure 4: The framing checklist	30
Figure 5: Six-step scenario-based approach to strategic planning.....	36
Figure 6: 360° stakeholder feedback process	38
Figure 7: Scenario planning for European airline network carriers, first-round questionnaire.....	39
Figure 8: Scenario planning for European airline network carriers, second-round questionnaire.....	40
Figure 9: Spider diagram of the European airline scenario – Impact: External versus internal view.....	42
Figure 10: Spider diagram of the European airline scenario – Uncertainty: External versus internal view.....	43
Figure 11: Second-round questionnaire	50
Figure 12: Blind spots in the impact dimension.....	51
Figure 13: Blind spots in the uncertainty dimension.....	51
Figure 14: The six-step scenario-based approach to strategic planning	53
Figure 15: The impact/uncertainty grid (Source: van't Klooster & van Asselt, 2006)	55
Figure 16: The six-step scenario-based approach to strategic planning	57
Figure 17: The scenario matrix (Source: van der Heijden, 2005).....	63
Figure 18: The influence diagram (Source: van der Heijden, 2005).....	64
Figure 19: Impact/uncertainty grid for the European airline industry	70
Figure 20: Future scenarios for the European airline industry	72
Figure 21: Simplified influence diagram for the European airline industry	73
Figure 22: Scenario fact sheet: Network fortress	76
Figure 23: Scenario fact sheet: Europe under siege	79
Figure 24: Scenario fact sheet: The champions' decline.....	83
Figure 25: Scenario fact sheet: New horizons	86
Figure 26: The six-step scenario-based approach to strategic planning	88

Figure 27: The strategy corridor.....	93
Figure 28: The six-step scenario-based approach to strategic planning	95
Figure 29: Influence diagram	97
Figure 30: Indicator table	98
Figure 31: Scenario cockpit: Traffic light system.....	99
Figure 32: Scenarios for the European airline industry	102
Figure 33: Strategy corridor for the European airline industry.....	104
Figure 34: Influence diagram for the European airline industry.....	105
Figure 35: Indicator table for the European airline industry.....	106
Figure 36: Indicator range for the European airline industry (example)	107
Figure 37: Scenario cockpit: traffic light system for the European airline industry	108
Figure 38: Prozess der Szenariobasierten Strategischen Planung.....	115
Figure 39: Szenarien für die europäische Luftverkehrsbranche bis 2015 im Überblick	120
Figure 40: Research Model.....	131
Figure 41: Generational Involvement and Exploration	171
Figure 42: Generational Involvement and Exploitation.....	172

TABLE OF ABBREVIATIONS

AEA.....	Association of European Airlines
AOM.....	Academy of Management
ASEAN.....	Association of Southeast Asian Nations
CEO	Chief Executive Office
DLR.....	Deutsches Zentrum für Luft- und Raumfahrt
e.g.	exempli gratia – for example
EIASM.....	European Institute for Advanced Studies in Management
EU	European Union
EURAM.....	European Academy of Management
GDP	Gross Domestic Product
HHL.....	HHL Leipzig Graduate School of Management
IATA.....	International Air Transport Association
i.e.	id est – that is
Ifera.....	International Family Enterprise Research Association
IMF	International Monetary Fund
KLM	Royal Dutch Airlines
LCC.....	Low-Cost Carrier
NAFTA.....	North-American Free Trade Agreement
OA	Organizational Ambidexterity
OECD	Organization for Economic Co-operation and Development
PAX.....	Persons Approximately
RBV	Resource-Based View
R&D	Research and Development
TMT	Top Management Team
US	United States of America
WTO	World Trade Organization

I. SCENARIO-BASED STRATEGIC PLANNING AND STRATEGIC MANAGEMENT IN FAMILY FIRMS

Overview of the cumulative dissertation

Christian Brands

1. Research Question and Goal of the Dissertation

A sound and effective strategic management in volatile, complex and uncertain environmental conditions requires a comprehensive strategic management to support a firm in obtaining and sustaining a competitive advantage (Miller, 2008; Porter, 1985). Strategic management refers to the process through which firms align their resources with their goals and opportunities meaning that firms decide in the present what they want to achieve in the future (Kotler, 1967).

Firms that manage their resources strategically are not only analyzing the current state of their business, but also think ahead how to use upcoming business opportunities in an increasingly dynamic, volatile and uncertain environment (Porter, 1980; Tapinos, Dyson, & Meadows, 2005). Analyzing the current state of a company gives unique insights into a company's resources. Yet, it can be a challenging task where strategies tend to be obtained through very formalized processes (Ward, 1988). Consequently conflicts and debates within a firm as to which process or form of strategic management is best suited to achieve future goals are common. Initial studies in strategic management research often regarded this conflict between choosing the right plan or process to obtain a strategy as necessary to achieve a competitive advantage, i.e. earning a persistently higher rate of profit, or having the potential to earn a persistently higher rate of profit (Ansoff, 1991; Brews & Hunt, 1999; Grant, 2000; Mintzberg, 1990).

However, more recent studies present a range of solutions to achieve a competitive advantage where individuals developing strategies are more important than the company itself (Whittington, 1996) or seeing strategic management in a wider company context where soft elements such as organizational culture or firm values are more important in achieving a competitive advantage than the actual process of developing a strategy (Jarzabkowski & Balogun, 2009).

One approach identified by the strategic management literature capable of overcoming the weaknesses of existing strategic planning tools while maintaining

their strengths is scenario planning (Schoemaker, 1995). Scenario Planning allows strategic planners to use a structured process, analyzing the current state of their firm gaining unique insights into its resources whilst allowing enough room for debate and space to think ahead in different pictures of the future how an increasingly dynamic, volatile and uncertain environment shapes forthcoming developments (Chermack, Lynham, & Ruona, 2001; van der Heijden, 2005; Wack, 1985; Wright & Cairns, 2011).

Yet, traditional scenario planning processes are time and resource consuming and complex meaning they are hard to apply as a straightforward strategic planning and management tool in corporate practice (Millet, 2003; Moyer, 1996). Moreover, existing scenario planning techniques tend to be scarcely explained meaning no common methodology or step-by-step guide on how companies can use scenarios as a strategic management tool exists (Schwenker & Boetzel, 2007). Consequently the development and open publication of a more straightforward and tool based scenario planning methodology would be beneficial both for strategic management research as an academic field as well as corporate practice.

Constructing multiple future scenarios answering critical questions regarding how a company can sustain its competitive advantage always requires participants to think long-term, usually a minimum of five years ahead (Godet, 2000). One unique type of firm that is particularly well suited when it comes to long-term thinking is a family firm. Families and their corresponding firms naturally foster advantages regarding long-term performance and survival (Nicholson, 2008) through accepting a longer time horizon for financial returns (Zellweger, Meister, & Fueglistaller, 2007) as well as patient capital investments (Sirmon & Hitt, 2003). Research in the entrepreneurship, strategic management and family firm literature has recognized that family firms automatically adopt a long-term approach when it comes to their strategic management practices since long-term survival across generations is the overarching goal of any family business (Kellermanns & Eddleston, 2006; Ward, 1987). Passing the family business to the next generation in a better financial

shape compared to when the current generation obtained control of the business is the prime goal of a family firm (Nicholson, 2008). Creating and sustaining a competitive advantage not only in the short-term, but over generations is the basic principle governing strategic management in family firms (Sharma & Salvato, 2011).

While a large body of research has demonstrated the uniqueness of family firms compared to non-family firms (Chrisman, Chua, & Steier, 2003; Habbershon & Williams, 1999; Ward, 1987), with most research largely focusing on the performance effect of being a family business (Habbershon, Williams, & MacMillan, 2003; Rutherford, Kuratko, & Holt, 2008; Zellweger et al., 2007), only little research has been conducted so far on how families manage their business strategically over different generational stages (Sharma & Salvato, 2011). A new stream on strategic management in family firms over different life-cycle stages and thus generations has emerged to fill this gap (Dawson, Sharma, Irving, Marcus, & Chirico, 2013; Zellweger, Kellermanns, Chrisman, & Chua, 2012). Nevertheless, more research on strategic management in family firms leading to a competitive advantage over generations is called for (Sharma & Salvato, 2011). Above all the effect of different generations managing a family firm on the firm's strategic management activities to create a competitive advantage has not been analyzed empirically so far.

This dissertation overcomes both gaps present in the management literature on scenario planning and the family firm literature on strategic management in family firms by introducing a tool-based approach to scenario planning and an empirical research design analyzing the generational impact present in family firms. The thesis thus has two goals: First, it aims to develop a more straightforward and structured approach to scenario-based strategic planning by systematically analyzing the tools and steps of the developed methodology as well as providing examples of their application in a corporate context. Second, it aims at creating insights on how successful family firms manage their business over varying life-

cycle stages by focusing on the impact of different generations managing the family firm and their impact on the firm's competitive advantage.

In order to achieve these goals, the thesis is structured as follows (Figure 1): The first two papers presented in the dissertation introduce and describe a new approach to scenario-based strategic planning overcoming the weaknesses of existing approaches. They provide a structured analysis and theoretical as well as practical derivation of the new approach to scenario-based strategic planning. The paper "*Six-Tools for Scenario-Based Strategic Planning and Their Application*" describes and introduces the innovative HHL Roland Berger approach to scenario-based strategic planning including a set of tools and practical examples facilitating its straightforward implementation in corporate practice. It thus provides the methodological basis for the scenario planning section of this dissertation.

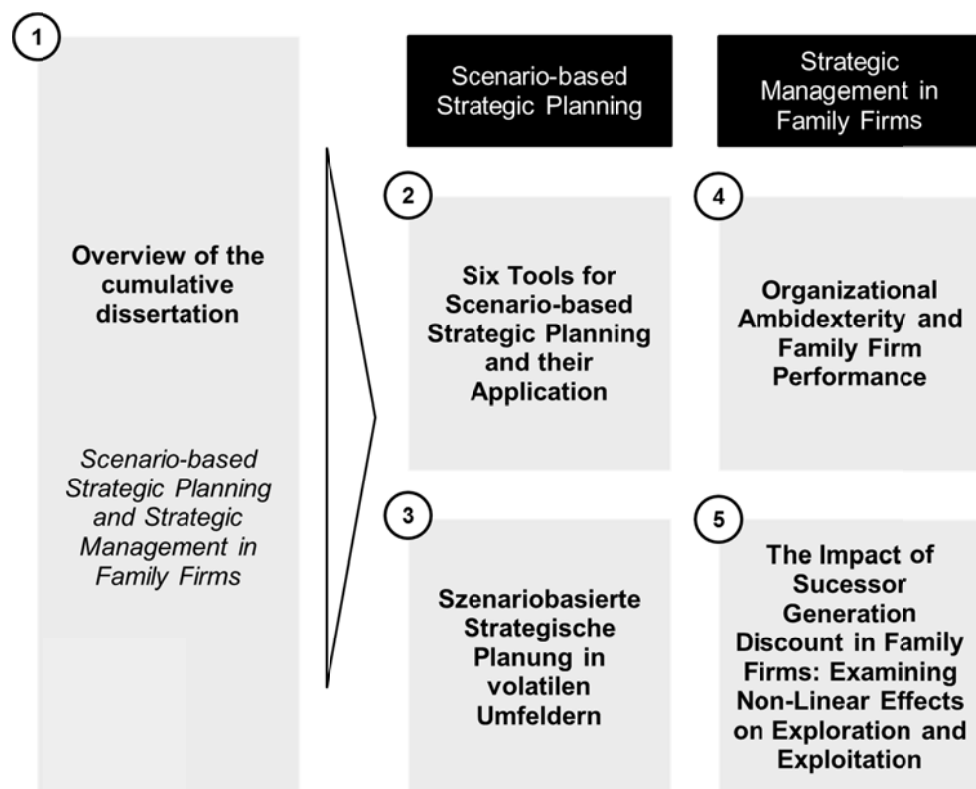


Figure 1: Structure of the dissertation

The second paper *“Szenariobasierte Strategische Planung in Volatilen Umfeldern”* explores the adaptability of the HHL Roland Berger approach to scenario-based strategic planning to the financial management and controlling context in private companies. It thus sets out to close the research gap assuming that existing scenario-based strategic planning methodologies are too complex and resource intensive to be applied in corporate practice. Due to the demanding characteristics of a firm’s finance function this paper particularly contributes to relevant theoretical and practical benefits of applying the HHL Roland Berger approach to scenario-based strategic planning when creating future scenarios.

Focusing on the second set of goals, the third and fourth paper make the transition to family firm research creating insights on how successful family firms manage their business over varying life-cycle stages creating a sustained competitive advantage. The paper *“Organizational Ambidexterity and Family Firm Performance”* empirically examines how family influence affects the level of organizational ambidexterity (OA) in creating a higher performance level and thus a sustained competitive advantage. The paper empirically combines research on family firms and strategic management through a survey with 104 private German family firms introducing OA to the controversial debate on how family firms obtain and sustain a competitive advantage.

The finale paper *“The Impact of Successor Generation Discount in Family Firms: Examining Nonlinear Effects on Exploration and Exploitation”* concludes this dissertation by empirically analyzing the effect of different generations managing a family firm on their tendency to obtain a competitive advantage through either capability exploration or resource exploitation. A dataset of 125 German private family firms is used to test the paper’s hypotheses and close the previously mentioned research gap. The paper offers distinct insights how during different generational stages family firms attempt to achieve a competitive advantage through capability exploration and resource exploitation suggesting a high difficulty for family firms to simultaneously pursue both.

With the introduction and explanation of the HHL Roland Berger approach to scenario-based strategic planning as well as its exemplary application to the finance function this dissertation contributes to strategic management and scenario planning research. It further provides insights on how family firms use different strategic management approaches to create a competitive advantage through two different empirical studies. It thus goes on to show how both scenario planning and strategic management in family firms, whose effects are extensively claimed in the literature, can in fact help companies in general and family firms in particular attain and maintain a sustained competitive advantage.

2. Summary of Papers

The first paper *“Six-Tools for Scenario-Based Strategic Planning and Their Application”* is a structured and hands-on explanation of the HHL Roland Berger approach to scenario-based strategic planning. A core critique of scenario planning has so far been its complexity and resource intensity both in terms of time and manpower when being used as part of a company’s strategic planning process. Moreover, senior executives and strategic planners often found it difficult to grasp the essence of scenario planning and translate the advantages of the approach into their existing strategic planning practices. The paper overcomes these shortcomings by providing a detailed overview of the six steps and tools that can be used to initiate and execute a scenario-based strategic planning project. Based on an analysis of the HHL Roland Berger approach to scenario-based strategic planning, the paper describes each process step and the application of the tools in detail.

First, each process step is put into the context of the latest developments in research on strategic and scenario planning highlighting its respective theoretical implications. Next, each step of the process and the respective tool facilitating its application is explained. Finally, an example based on the European airline industry for the practical application of each process step and tool is provided and explained in order to visualize the ease of using the HHL Roland Berger approach as part of a scenario-based strategic planning project. The paper, co-authored by Torsten Wulf and Philip Meissner has been published as part of the book *“Scenario-Based Strategic Planning”*, edited by Burkhard Schwenker and Torsten Wulf. The book is published by Springer Gabler, Wiesbaden (2013).¹ The author’s main contribution to the paper is the structured integration of the HHL Roland Berger approach to scenario-based strategic planning into the latest developments in research on strategic and scenario planning, the methodologically and didactically sound explanation of the approach including the development of

¹ ISBN: 978-3-658-02874-9

relevant examples as well as the knowledge transfer of an academic, theoretical approach into practice.

The paper *“Szenariobasierte Strategische Planung in Volatilen Umfeldern”* is an adaptation of the HHL Roland Berger approach to scenario-based strategic planning to the financial management and controlling context in private companies. Companies are constantly looking for new instruments in order to cope with an increasing uncertainty, volatility and complexity in their daily operations. Especially the finance and controlling functions in a company are affected by more volatile and uncertain revenue streams as well as earnings making it more difficult to make sound financial projections and forecasts.

The paper introduces scenario-based strategic planning as an instrument for corporate and financial planners as well as controllers to cope with more volatile and uncertain revenue streams helping to improve the accuracy of controlling forecasts. In this context the paper highlights the strengths of the HHL Roland Berger approach to scenario-based strategic planning through its standardized tool-set facilitating the flexible implementation of the approach into a company's finance function and budgetary planning processes. The paper thus provides a structured analysis of the theoretical and practical knowledge transfer of scenario planning into the finance function companies. The paper, which is co-authored by Torsten Wulf, Stephan Stubner and Philip Meissner has been published in the special issue 2 / 2012 of *Controlling & Management*.² The author's main contribution is the theoretical and practical adaptation of the HHL Roland Berger approach to scenario-based strategic planning to the finance and controlling context. In addition the author extensively contributed to the creation and revision of the structure, introduction and conclusion of the paper.

The paper *“Organizational Ambidexterity and Family Firm Performance”* marks the transition of the research focus from scenario planning to strategic management

² VHB Jourqual D

research in family firms. It introduces the concept of organizational ambidexterity (OA) to family firm research and empirically tests a set of hypotheses on the impact of family influence on OA and private family firm performance. The study demonstrates that as family influence increases, family firms achieve higher degrees of OA and subsequent firm performance. Especially the family power and cultural alignment dimensions lead to higher degrees of OA and firm performance. The paper contributes both to strategic management and family firm research by combining the two fields and introducing OA to the controversial debate on family firm heterogeneity and private family firm performance. Moreover, the paper shows that the strategic concept of ambidexterity is also valid in the confined context of German family firms.

The paper, which is co-authored by Stephan Stubner, W. Henning Blarr and Torsten Wulf has been published in the *Journal of Small Business and Entrepreneurship*, Vol. 25(2), 2012, pp. 217-229.³ It was previously presented following a successful double-blind review process at the 11th European Academy of Management Conference (EURAM) in Tallinn, Estonia in 2011 and the 11th Annual IFERA World Family Business Research Conference 2011 in Palermo, Italy. The author's main contribution is the development of the paper's structure as well as theoretical link of OA to the family firm research context. Additionally, the author contributed significantly to the revision of the paper as part of the publication process with the *Journal of Small Business and Entrepreneurship*.

The final paper "*The Impact of Successor Generation Discount in Family Firms: Examining Nonlinear Effects on Exploration and Exploitation*" is a theoretical and empirical extension of the research on strategies adopted by family firms in order to obtain a sustaining competitive advantage. It contributes to the debate on generational involvement in family firms and its impact on two orientations present in the strategic management literature: capability exploration and resource exploitation. Based on a set of 125 German family firms the paper shows that as

³ VHB Jourqual C

the generation involved in managing a family firm increases, the level of exploration decreases. At the same time the level of exploitation of existing resources rises to a point where efficiency improvements no longer lead to performance advantages. Based on the resource-based view and insights from the family firm literature the paper thus shows that – on the one hand – a U-shaped relationship exists between generational involvement in family firms' management and the level of exploration and – on the other hand – an inverse U-shaped relationship can be found between generational involvement in family firms' management and the level of exploitation. The study offers distinct insights with family firms applying different rent creation mechanisms during different generational stages suggesting a high difficulty for firms to simultaneously pursue an exploration of new opportunities and exploitation of existing resources.

The paper is co-authored with Torsten Wulf and was presented at the 9th Workshop on Family Firm Management Research 2013 by the European Institute for Advanced Studies in Management (EIASM) in Helsinki. The paper is currently prepared to be submitted to a family firm research journal. The author's main contribution to the paper is the development of the research idea, research design, the theoretical development of hypotheses as well as their empirical testing. Moreover the author has integrated research on the unique generational effect present in family firms with the resource-based view and a firm's rent seeking mechanism establishing a sustained competitive advantage.

Dissertation Results

This dissertation introduces an interdisciplinary research design integrating scenario planning and strategic management in family firms. By providing both academics and practitioners with a detailed overview of an innovative approach to scenario-based strategic planning and transferring this approach to the corporate finance function, the thesis provides insights on how companies can cope with a complex, uncertain and volatile business environment. Moreover, the thesis bridges the gap between scenario planning and strategic management in family firms providing empirical support how family influence helps family firms to attain a higher level of organizational ambidexterity and performance thus helping to sustain their competitive advantage.

Additionally, the thesis introduces empirical support for the generational effect present in family firms suggesting that family firms apply different rent creation mechanisms during different generational stages to sustain a competitive advantage. These results help both academia, corporate and family firm management alike to better understand how scenario planning helps to cope with complexity and uncertainty and which strategies can be adopted by family firm managers over different life-cycle stages to increase performance. It thus supports achieving the ultimate goal of strategic management, creating and sustaining a competitive advantage (Figure 2).

2.1. Contribution

The presented six tools for scenario-based strategic planning contribute to existing research on strategic management and scenario planning by offering a detailed explanation how scenario planning can easily be integrated into a company's strategic planning activities through applying the six tools. The six tools overcome the often criticized complexity associated with scenario planning in companies (Millet, 2003; Moyer, 1996). Moreover, the approach and the six tools help companies to better cope with volatile, complex and uncertain business environments. It thus closes the research gap asking for more visionary strategic management tools capable of integrating outside perspectives rather than

following existing formalized, inward looking strategic planning processes (Jarzabkowski & Balogun, 2009; Wright & Cairns, 2011).

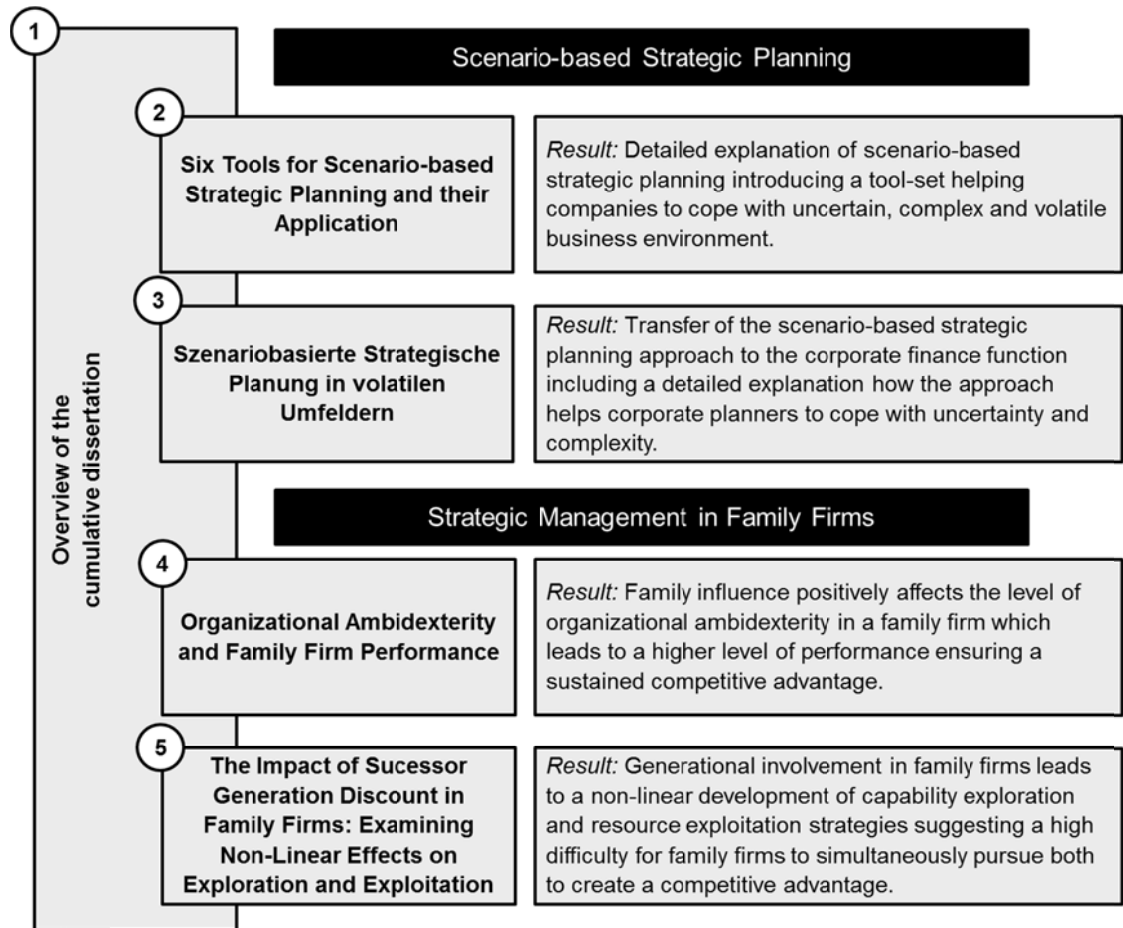


Figure 2: Overview of dissertation results

The transfer of the six tools to the corporate finance function has been performed to provide further evidence of the approach's capability of reducing complexity in demanding corporate environments. One of the great challenges of the finance function in a company has been and still is to cope with uncertainty regarding a firm's revenue streams. The increasing volatility and uncertainty of revenue streams make it more difficult to strategically manage and plan a business (Bordo, Eichengreen, Klingebiel, & Martinez-Peria, 2001) calling for new methods and tools that help companies cope with these challenges. Traditional scenario planning techniques tend to produce vague and abstract results making it difficult

for the finance function to develop specific strategies based on scenarios (Bradfield, Wright, Burt, Cairns, & van der Heijden, 2005). The approach and the transfer of the six tools to the finance function closes this gap by explaining in detail how corporate planners can cope with volatile revenue streams using the six tools.

The thesis thus contributes to the strategic management literature and calls for a better understanding how complexity, volatility and uncertainty can be anticipated and managed in companies leading to a sustained competitive advantage.

By transferring the findings on how firms can sustain a competitive advantage through scenario planning and strategic management to family firm research this dissertation contributes to the research domain calling for a strategic management perspective examining how family firms attain a competitive advantage when conducting research on family firms (Sharma, Chrisman, & Chua, 1997). This dissertation makes a first step towards integrating the two fields, strategic management and family firm research, by being the first to introduce the strategy concept of organizational ambidexterity (OA) to family firm research. Through the development of hypotheses examining the impact of family influence on OA and subsequent family firm performance and testing them in an empirical research design, the thesis combines and summarizes the two research streams (Zahra & Sharma, 2004). The result showing that family influence leads to higher level of ambidexterity through family power and culture alignment and that a higher level of ambidexterity in family firms leads to a higher performance provides a better understanding how family firms achieve a competitive advantage. Moreover, the thesis makes a clear theoretical contribution by providing an approach for integrating strategic management and family firm research which can be adopted by other researchers from both fields.

In addition, this thesis provides insights on the generational involvement in family firms and its impact on two important strategies for creating a competitive advantage: new capability exploration and resource exploitation. It thus empirically

contributes to the family firm research debate on the strategies pursued by successful dynastic family enterprises as to how they engage in a continuous cycle of capability exploration and resource exploitation (Sharma & Salvato, 2011). The results provide significant theoretical insights for family firm researchers as the pursuit of capability exploration and resource exploitation does not take place simultaneously, but follows a non-linear distribution over different family generations managing the family business. Additionally, the findings provide family firm managers with a clear indication when to adapt the right strategic focus on capability exploration or resource exploitation depending on which family generation currently manages the family firm. Finally a contribution is made to the strategic management literature by using the family firm context to enrich the debate on strategies pursued by companies to create a competitive advantage. Our results provide a more fine-tuned analysis on the creation of a competitive advantage as firms tend to use different strategies depending on the life-cycle stages they are in rather than pursuing different strategies simultaneously.

These contributions to the growing literature on strategic management in family firms responding to calls asking to conduct more empirical research in the family firm context examining the different strategies adopted by family firms to attain a competitive advantage.

Summarizing, this dissertation presents six tools to be used as part of a scenario-based strategic planning process leading to a sustained competitive advantage. It proves the tools' relevance by transferring them to the corporate context and highlighting their practicality when conducting strategic management projects in volatile, uncertain and complex business environments. The pursuit of attaining a competitive advantage is empirically transferred to the family firm research context by integrating family firm and strategic management research describing different strategies pursued by family firms to preserve their competitive advantage.

2.2. Implications and Further Research

The dissertation's results have a high relevance for strategic management and family firm research as well as corporate practice. The first two papers, *"Six-Tools for Scenario-Based Strategic Planning and Their Application"* and *"Szenariobasierte Strategische Planung in Volatilen Umfeldern"* introduce and refine six tools to the strategic management and scenario planning literature allowing for a better understanding of complexity, volatility and uncertainty as part of strategic management practices.

Particularly the six tools of the approach to scenario-based strategic planning can initiate a new, more elaborate discussion on the benefits of strategic management in general and strategic planning in particular. A first step towards analyzing the benefits of the six tools has already been made in the second paper of the dissertation where they are applied in the corporate and financial planning context. Yet, the debate could move one step further by adapting the six tools and linking the scenarios and their outcomes to managerial accounting, i.e. flexible budgeting processes such as rolling budgets. The advantage of such research would be a further refinement of the approach to scenario-based strategic planning and a further integration of research on strategic planning and managerial accounting.

Moreover, combining strategy and managerial accounting research through the scenario-based approach to strategic planning could also lead to a more precise analysis on how companies actually achieve a competitive advantage. As mentioned in the first paragraph, the basic definition of a competitive advantage posits that a firm with a competitive advantage earns a persistently higher rate of profit, or has the potential to earn a persistently higher rate of profit (Mintzberg, 1994). Yet, strategic management research so far has not yet managed to quantify the costs involved in attaining a competitive advantage and the exact benefits going beyond pure profits associated with it. A quantification of scenarios derived through a scenario-based strategic planning activity and their linkage with accounting tools such a company's profit and loss account or balance sheet could close this research gap.

The papers *“Organizational Ambidexterity and Family Firm Performance”* and *“The Impact of Successor Generation Discount in Family Firms: Examining Nonlinear Effects on Exploration and Exploitation”* empirically analyze the strategies used by family firms to attain a competitive advantage further enhance the understanding of strategic management in a particular context. The concept of organizational ambidexterity is of significant relevance in the strategic management context as it describes a highly relevant strategic dilemma of firms pursuing a competitive advantage, namely the strive of organizations to pursue two different approaches at the same time: they have a strong exploitative orientation to improve the performance of current business activities, e.g. through higher efficiency (March, 1991) as well as an explorative orientation geared toward innovation and flexible operations to develop and harvest future business opportunities (Tushman & O'Reilly III, 1996).

The dissertation introduces organizational ambidexterity to the family firm context and shows how family influence leads to higher levels of ambidexterity and subsequent higher performance. However, further analysis to validate and fine-tune the relationship between organizational ambidexterity and performance in family could lead to more detailed results on how exactly family influence leads to a higher level of ambidexterity. Especially the social and emotional aspects of family businesses and the relationship among family members as well as between the family and the business are a promising domain for further research in this area. Moreover, this promising research stream is also in line with recent findings in the strategic management literature suggest that a strong organizational culture or firm values are more important in achieving a competitive advantage than the actual process of developing a strategy (Jarzabkowski & Balogun, 2009). Family firms in general provide a strong organizational context with positive firm values making them a suitable domain to further study how companies attain a competitive advantage.

With the empirical analysis of organizational ambidexterity in German family firms this dissertation makes a first contribution on the strategic orientations pursued by family firms. However, organizational ambidexterity is a complex construct with different types of ambidexterity such as structural or behavioral ambidexterity (Simsek, 2009). Further research should take these different types of organizational ambidexterity into account as they might provide further insights on how family firms actually achieve a competitive advantage through structural ambidexterity.

These findings of the dissertation also have implications for corporate managers. They highlight the special role of family firms in attaining high levels of ambidexterity and further demonstrate the positive performance impact achieved by having an ambidextrous organization. Family firm managers aiming to increase their business's performance can thus analyze their organization's strategy aligning relevant activities towards a more ambidextrous focus which should eventually result in a competitive advantage.

The dissertation's final paper continues the debate on strategic management in family firms by focusing on the impact a family generation managing the family firm has on new capability exploration and resource exploitation. The paper has strong implications for both academia as well as practitioners. It is commonly known and empirically proven that a mere ten percent of first generation family businesses successfully transition to the third generation (Kellermanns & Eddleston, 2004). This dissertation contributes to this debate by providing insights on the degree of capability exploration and resource exploitation present in family firms depending on which generation controls the firm's management. Going beyond the fact that the findings of the dissertation show a U-shaped relationship between generational involvement in family firms and the level of exploration with the minimum point being during the second generation, and an inverse U-shaped relationship between generational involvement and the level of exploitation with the maximum point being during the third generation managing the family business, it answers a specific research call asking for a more fine grained analysis of explorative and

exploitative strategies in family firms (Sharma & Salvato, 2011). This finding has implications for research scholars and practitioners alike. Research scholars so far have assumed that capability exploration and resource exploitation take place simultaneously. Our results obtained in the German family firm context suggest otherwise. A further analysis on how family firms explore capabilities and exploit resources, ideally in a different geographic setting is thus needed to provide further evidence for our results. Moreover, given the empirical nature of the research design adopted in this dissertation, it is still not clear how exactly family firms explore capabilities and exploit resources. A qualitative study could provide further insights on this research question.

From a practitioners perspective this dissertation might answer the question why most family firms fail to make a successful transition into the third generation over the lifecycle of a family business: The level of exploitation increases too quickly with the level of exploration decreasing at the same time reaching its minimum during the third generation managing the firm. Our results suggest that only those firms making a quick transition and refocus on exploration make it beyond the third generation. Family firm managers aware of this finding can thus adopt the relevant strategic orientation at the right time. With this result in mind family managers might disprove the common notation that wealth does not pass three generations.

In summary this thesis implies for corporate practice that scenario-based strategic planning including the six tools is a useful tool for managing complex, uncertain and volatile business environments. Furthermore, it provides insights on how scenario-based strategic planning can help corporate and financial planners to cope with unforeseen challenges potentially putting their company's competitive advantage at risk. For family firm managers this thesis suggests to revisit the strategies in place focusing on exploration and exploitation since a combination of both might lead to a higher performance. Moreover family firm managers and owners should keep in mind which generation is currently managing the firm since different family generations have different priorities regarding of firm's tendency

towards capability exploration and resource exploitation potentially putting the firm's existence at risk.

BIBLIOGRAPHY

- Ansoff, H. I. 1991. Critique of Henry Mintzberg's 'The Design School: Reconsidering the Basic Premises of Strategy Management'. ***Strategic Management Journal***, 12(6): 449-461.
- Bordo, M., Eichengreen, B., Klingebiel, D., & Martinez-Peria, M. 2001. Is the Crisis Problem Growing More Severe? ***Economic Policy***, 16(32): 51-82.
- Bradfield, R., Wright, G., Burt, G., Cairns, G., & van der Heijden, K. 2005. The Origins and Evolution of Scenario Techniques in Long Range Business Planning. ***Futures***, 37(8): 795-812.
- Brews, P. J., & Hunt, M. R. 1999. Learning to Plan and Planning to Learn: Resolving the Planning School/Learning School Debate. ***Strategic Management Journal***, 20(10): 889-913.
- Chermack, T. J., Lynham, S. A., & Ruona, W. E. A. 2001. A Review of Scenario Planning Literature. ***Futures Research Quarterly***, 17(2): 7-31.
- Chrisman, J. J., Chua, J. H., & Steier, L. P. 2003. An Introduction to Theories of Family Business. ***Journal of Business Venturing***, 18(4): 441-448.
- Dawson, A., Sharma, P., Irving, P. G., Marcus, J., & Chirico, F. 2013. Predictors of Later-Generation Family Members' Commitment to Family Enterprises. ***Entrepreneurship Theory and Practice***, Early Online View.
- Godet, M. 2000. The Art of Scenarios and Strategic Planning: Tools and Pitfalls. ***Technological Forecasting and Social Change***, 65(1): 3-22.
- Grant, R. M. 2000. ***Contemporary Strategy Analysis***. Malden, MA: Blackwell.
- Habbershon, T. G., Williams, M., & MacMillan, I. C. 2003. A Unified Systems Perspective of Family Firm Performance. ***Journal of Business Venturing***, 18(4): 451-451.
- Habbershon, T. G., & Williams, M. L. 1999. A Resource-Based Framework for Assessing the Strategic Advantages of Family Firms. ***Family Business Review***, 12(1): 1-25.
- Jarzabkowski, P., & Balogun, J. 2009. The Practice and Process of Delivering Integration through Strategic Planning. ***The Journal of Management Studies***, 46(8): 1255-1255.
- Kellermanns, F., & Eddleston, K. 2006. Corporate Entrepreneurship in Family Firms: A Family Perspective. ***Entrepreneurship Theory and Practice***, 30(6): 809-830.

- Kellermanns, F. W., & Eddleston, K. A. 2004. Feuding Families: When Conflict Does a Family Firm Good. ***Entrepreneurship: Theory & Practice***, 28(3): 209-228.
- Kotler, P. 1967. ***Marketing Management: Analysis, Planning, and Control***. Englewood Cliffs, N.J.: Prentice-Hall.
- March, J. G. 1991. Exploration and Exploitation in Organizational Learning. ***Organization Science***, 2(1): 71-87.
- Miller, C. C. 2008. Decisional Comprehensiveness and Firm Performance: Towards a More Complete Understanding. ***Journal of Behavioral Decision Making***, 21(5): 598-620.
- Millet, S. M. 2003. The Future of Scenarios: Challenges and Opportunities. ***Strategy & Leadership***, 31(2): 16-24.
- Mintzberg, H. 1990. The Design School: Reconsidering the Basic Premises of Strategic Management. ***Strategic Management Journal***, 11(3): 171-195.
- Mintzberg, H. 1994. ***The Rise and Fall of Strategic Planning***. New York: The Free Press.
- Moyer, K. 1996. Scenario Planning at British Airways - A Case Study. ***Long Range Planning***, 29(2): 172-181.
- Nicholson, N. 2008. Evolutionary Psychology and Family Business: A New Synthesis for Theory, Research and Practice. ***Family Business Review***, 20(1): 33-47.
- Porter, M. E. 1980. ***Competitive Strategy***. New York: The Free Press.
- Porter, M. E. 1985. ***Competitive Advantage: Creating and Sustaining Superior Performance***. New York: The Free Press.
- Rutherford, M. W., Kuratko, D. F., & Holt, D. T. 2008. Examining the Link Between "Familianness" and Performance: Can the F-PEC Untangle the Family Business Theory Jungle? ***Entrepreneurship Theory and Practice***, 32(6): 1089-1109.
- Schoemaker, P. 1995. Scenario Planning: A Tool for Strategic Thinking. ***Sloan Management Review***, 37(2): 25-40.
- Schwenker, B., & Boetzel, S. 2007. ***Making Growth Work - How Companies can Expand and Become More Efficient***. Berlin: Springer.
- Sharma, P., Chrisman, J. J., & Chua, J. H. 1997. Strategic Management of the Family Business: Past Research and Future Challenges. ***Family Business Review***, 10(1): 1-35.

- Sharma, P., & Salvato, C. 2011. Commentary: Exploiting and Exploring New Opportunities Over Life Cycle Stages of Family Firms. ***Entrepreneurship: Theory & Practice***, 35(6): 1199-1205.
- Simsek, Z. 2009. Organizational Ambidexterity: Towards a Multilevel Understanding. ***Journal of Management Studies***, 46(4): 597-624.
- Sirmon, D. G., & Hitt, M. A. 2003. Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms. ***Entrepreneurship Theory and Practice***, 27(4): 339-358.
- Tapinos, E., Dyson, R. G., & Meadows, M. 2005. The Impact of Performance Measurement in Strategic Planning. ***International Journal of Productivity and Performance Management***, 54(5): 370-384.
- Tushman, M. L., & O'Reilly III, C. A. 1996. Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. ***California Management Review***, 38(4): 8-30.
- van der Heijden, K. 2005. ***Scenarios: The Art of Strategic Conversation***. Chichester: Wiley.
- Wack, P. 1985. Scenarios: Uncharted waters ahead. ***Harvard Business Review***, 63(5): 73-89.
- Ward, J. L. 1987. ***Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability, and Family Leadership***. San Francisco: Jossey-Bass.
- Ward, J. L. 1988. The Special Role of Strategic Planning for Family Businesses. ***Family Business Review***, 1(2): 105-117.
- Whittington, R. 1996. Strategy as Practice. ***Long Range Planning***, 29(5): 731-735.
- Wright, G., & Cairns, G. 2011. ***Scenario Thinking: Practical Approaches to the Future***. Houndmills: MacMillan.
- Zahra, S. A., & Sharma, P. 2004. Family Business Research: A Strategic Reflection. ***Family Business Review***, 17(4): 331-346.
- Zellweger, T., Meister, R., & Fueglistaller, U. 2007. The Outperformance of Family Firms: The Role of Variance in Earnings Per Share and Analyst Forecast Dispersion on the Swiss Market. ***Financial Markets and Portfolio Management***, 21(2): 203-220.
- Zellweger, T. M., Kellermanns, F. W., Chrisman, J. J., & Chua, J. H. 2012. Family Control and Family Firm Valuation by Family CEOs: The Importance of

Intentions for Transgenerational Control. ***Organization Science***, 23(3): 851-868.

II. SIX TOOLS FOR SCENARIO-BASED STRATEGIC PLANNING AND THEIR APPLICATION

Paper A

Published in

Schwenker, B. and Wulf, T. (Eds.), 2013. *Scenario-based Strategic Planning: Developing Strategies in an Uncertain World*. pp. 69-153, Springer Gabler: Wiesbaden, Germany

Christian Brands, Torsten Wulf and Philip Meissner

Abstract

Scenario planning has often been criticized for the complexity that arises when it is grafted into a company's overall strategic planning process. To overcome this deficiency, we have developed the HHL-Roland Berger scenario-based approach to strategic planning. This paper explains each tool of the approach in detail, evaluates its practicability and demonstrates how executives can immediately apply the entire toolkit within their overall strategic planning process. To facilitate the application of the tools, each step is explained using a practical example from the European airline industry. Taken together, the detailed explanations that follow present a scenario-based strategic planning framework that can help companies cope with an uncertain, complex and volatile business environment.

This article has been published as part of the book *“Scenario-based Strategic Planning: Developing Strategies in an Uncertain World”*, edited by Burkhard Schwenker and Torsten Wulf, pp. 69-153.

(ISBN 978-3-658-02874-9; 2013; Springer Gabler: Wiesbaden, Germany).

For copyright reasons, pages 27-110 were excluded from this version of my dissertation.

Further information on the book can be found here:

<http://www.springer.com/springer+gabler/management/unternehmensführung/book/978-3-658-02874-9>

III. SZENARIOBASIERTE STRATEGISCHE PLANUNG IN VOLATILEN UMFELDERN

Paper B

Veröffentlicht in

Controlling & Management, 2012, 56, Sonderheft 2, Seiten 34-38.

Torsten Wulf, Stephan Stubner, Philip Meissner und Christian Brands

<http://link.springer.com/article/10.1365/s12176-012-0380-z>

Abstract

Unternehmen suchen verstärkt nach Instrumenten, die sie bei der Planung in zunehmen volatileren und komplexeren Umwelten einsetzen können. Klassische Ansätze der strategischen Planung sind in diesem Kontext nicht offen genug, um dynamischen Änderungen in der Zukunft zu planen. Auch die sehr offene Szenarioplanung ist für Unternehmen nur bedingt geeignet, da sie zeit- und ressourcenaufwändig ist und nicht die Entwicklung von konkreten Handlungsempfehlungen zum Ziel hat. Eine Lösung stellt die szenariobasierte strategische Planung dar, die Unternehmen ermöglicht, mit Hilfe von standardisierten Instrumenten sehr flexibel zu planen und konkrete Strategieoptionen für zukünftige Umweltänderungen zu entwickeln.

1. Einführung: Unternehmen agieren in einer zunehmend volatilen Umwelt

Eine der größten Herausforderungen für die strategische Planung in Unternehmen stellt heutzutage die zunehmende Volatilität und Komplexität der Umwelt dar. Gerade in den letzten Jahren ist zu beobachten, dass diese Entwicklung sich verstärkt und die Unsicherheit bei der Planung von zukünftigen Ereignissen erhöht. Als ein Symptom für zunehmende Volatilität gelten zum Beispiel die immer kürzer werdenden Zyklen zwischen großen Wirtschaftskrisen. So haben Bordo et al. (2001) in ihrer Studie festgestellt, dass sich die Frequenz solcher Ereignisse seit 1973 verdoppelt hat. Schocks wie die Ölkrise von 1973, die Asienkrise von 1997, das Platzen der Internetblase in 2001 oder auch die letzte Finanzkrise in 2008 zeigen, wie volatil und schwer vorhersagbar wirtschaftliche Entwicklungen geworden sind. Verschärft werden die Auswirkungen wachsender Volatilität durch die zunehmende Dynamik im Wirtschaftsgeschehen. Allein in der Automobilbranche haben sich die Innovationszyklen in den letzten drei Jahrzehnten von durchschnittlich elf auf weniger als sechs Jahre verkürzt. Und auch die fortschreitende Senkung von Transaktionskosten durch neue Technologien und die zunehmend offenen Grenzen zwischen Wirtschaftszonen tragen dazu bei, dass sich Unternehmen heute in einer immer komplexeren Umwelt bewegen (Schwenker & Boetzel, 2007).

2. Volatilität als Herausforderung für die strategische Planung

Wenn sich Unternehmen in dieser Situation strukturiert Gedanken über ihre zukünftige Ausrichtung machen, zählt auch heute noch die traditionelle strategische Planung zu einem der dominanten Instrumente (Rigby & Bilodeau, 2007). Bei dieser traditionellen strategischen Planung wird üblicherweise auf Basis einer internen und einer externen Analyse eine Strategie bestimmt, mit welcher das Unternehmen mittel- bis langfristig Wettbewerbsvorteile entwickeln und sich auf dem Markt behaupten will. Dieser klassische Ansatz ist aber nicht geeignet, um Unternehmen bei zunehmender Volatilität und Umweltdynamik ausreichend zu unterstützen (Dyer, Johansson, Helbing, Couzin, & Krause, 2009; Mintzberg, 1994b). Dies liegt zum einen daran, dass in einem formalen strategischen Planungsprozess, für den traditionelle Strategieinstrumente entwickelt worden

sind, in der Regel relativ kontinuierliche Umweltveränderungen betrachtet werden. Damit fehlt die Offenheit, um auf diskontinuierliche Veränderungen oder starke Schwankungen im Umfeld zu reagieren (Mintzberg, 1994a). In der Kritik steht aber der Fokus traditioneller Ansätze auf nur eine einzige zukünftige Entwicklungsrichtung (Eisenhardt & Sull, 2001; Grant, 2003). Auch in der Unternehmenspraxis reift zunehmend die Erkenntnis, dass in dynamischen, komplexen und volatilen Umfeldern traditionelle Ansätze der strategischen Planung nur eingeschränkt geeignet sind (Ramirez, Selsky, & van der Heijden, 2008). Daher suchen viele Unternehmen aktiv nach neuen Ansätzen, welche die Offenheit und Flexibilität des strategischen Denkens stärker in den Vordergrund stellen als traditionelle Ansätze.

Insbesondere müssen solche Ansätze es ermöglichen, nicht nur eine mögliche Zukunft abzubilden, sondern vielmehr einen Optionenraum in der Planung zu erfassen (Miller, 2008). Zudem sollten solche Ansätze verschiedene interne und externe Perspektiven einbinden, um sicherzustellen, dass möglichst viele Aspekte einer immer komplexer werdenden und dynamischeren Umwelt berücksichtigt werden können (Elbanna/Child 2007). Schließlich sollten entsprechende Ansätze auch schnell und flexibel einsetzbar sein, um in volatilen Umfeldern schnell reagieren zu können (Dyer et al., 2009).

Oft versuchen Unternehmen, dies durch die Anwendung der Szenarioplanung zu erreichen (Dyer et al., 2009; Grant, 2003). Die Szenarioplanung deckt viele der aufgezeigten Anforderungen ab. Sie ermöglicht die Betrachtung verschiedener Entwicklungen der Zukunft und erlaubt dadurch einen besseren Umgang mit Unsicherheit und Volatilität (Grant, 2003; Porter, 1985; Schoemaker, 1995). Gerade in den letzten Jahren hat die Szenarioplanung daher in der Praxis wieder stärker an Bedeutung gewonnen.

Allerdings kann auch die klassische Szenarioplanung nicht alle Anforderungen an die strategische Planung in volatilen Umfeldern erfüllen und ist mit einigen Nachteilen verbunden. Gerade weil sie das Ziel hat, das offene Nachdenken über

zukünftige Entwicklungen zu fördern, wird sie oft ohne methodische Unterstützung durchgeführt. So mangelt es den meisten Ansätzen zur Szenarioplanung an standardisierten Methoden, die auch ohne Expertenunterstützung umgesetzt werden können (Chermack, Lynham, & Ruona, 2001). Dadurch ist der Prozess in der Regel komplex, umständlich, langwierig in seiner Anwendung und bindet viele interne Ressourcen im Unternehmen (Bradfield, 2008). Dies führt unter anderem dazu, dass Szenarioprojekte oft mehr als fünf Monate in Anspruch nehmen (Moyer, 1996; Shell, 2003). Nicht zuletzt können damit auch die Qualität von Szenarioprozessen und deren Ergebnisse sehr stark schwanken (Schwartz, 1996). Zudem erschwert der Fokus auf eher langfristige Entwicklungen die Anwendung im strategischen Kontext, der vornehmlich Zeiträume von weniger als fünf Jahren betrachtet (Schwartz, 1996). Schließlich zielt die Szenarioplanung weniger auf die Entwicklung von konkreten Strategien und Umsetzungsplänen ab, als vielmehr auf die Diskussion der eigentlichen Simulationen und Szenarien und der Entwicklungspfade, die zu diesen Szenarien führen (Bishop, Hines, & Collins, 2007). Dadurch wird die Handhabbarkeit der Szenarioplanung als Instrument der strategischen Planung stark eingeschränkt. Diese Nachteile der Szenarioplanung führen dazu, dass sie in ihrer traditionellen Form für Strategieplaner nur eingeschränkt zu empfehlen ist.

3. Szenariobasierte strategische Planung als Lösungsansatz für Planung unter Volatilität

3.1. Grundlagen der szenariobasierten strategischen Planung

Ein Ansatz, der darauf abzielt, die Vorteile der Szenarioplanung zu nutzen und ihre Nachteile zu vermeiden, ist der von uns entwickelte Ansatz der szenariobasierten strategischen Planung (Wulf, Meissner, & Stubner, 2010). Er ermöglicht die strukturierte, methodisch unterstützte Einbindung von Szenarien in den strategischen Planungsprozess, ist für Unternehmen einfach handhabbar und liefert umsetzbare Erkenntnisse. Die szenariobasierte strategische Planung folgt einem sechsstufigen Prozess, in den viele Aspekte der klassischen

Szenarioplanung eingebunden sind. Unterstützt werden die einzelnen Prozessschritte jeweils durch spezielle, teilweise neu entwickelte Instrumente, welche eine standardisierte Bearbeitung ermöglichen. Abbildung 36 gibt einen Überblick über diesen Prozess.

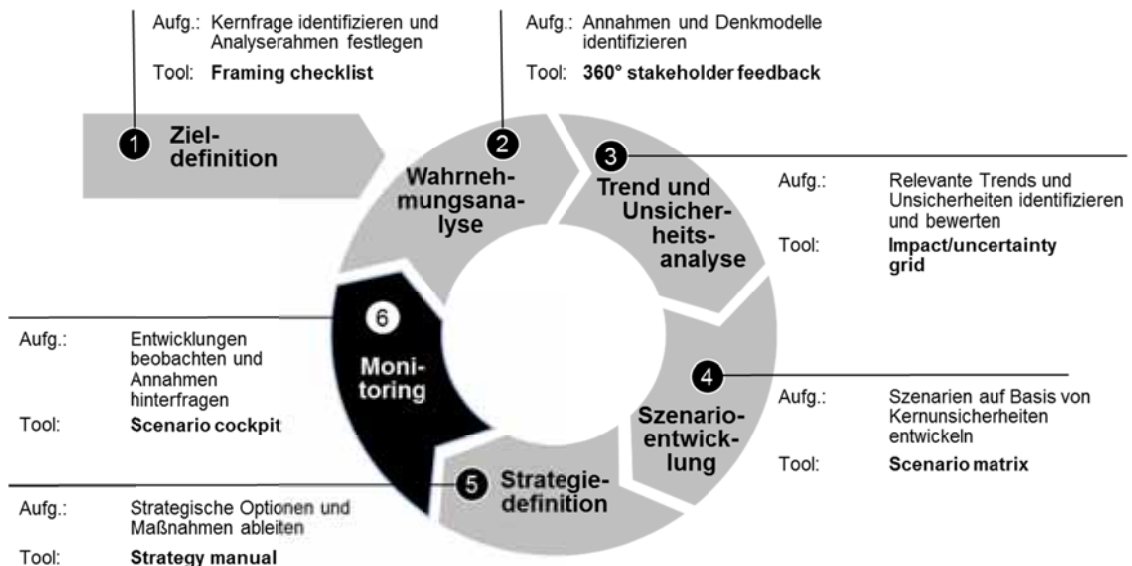


Abbildung 38: Prozess der Szenariobasierten Strategischen Planung

3.2. Prozess der szenariobasierten strategischen Planung

Im ersten Schritt der szenariobasierten strategischen Planung erfolgt die *Zieldefinition*, d.h. die Definition von Umfang und Umfeld des strategischen Planungsprojekts. Hierfür wurde mit der „Framing Checklist“ ein neues Instrument entwickelt, welches diesen Prozessschritt unterstützt. Die Framing Checklist ermöglicht anhand von fünf Kernfragen, das Ziel und die Rahmenbedingungen für die strategische Planung zu Beginn der Planungsphase aufzuzeigen und wesentliche Anspruchsgruppen zu identifizieren, die in den Prozess eingebunden werden sollen. Dadurch wird sichergestellt, dass alle Beteiligten das gleiche Verständnis für die mehrwöchige Planungsphase besitzen.

Mit dem zweiten Schritt, der *Wahrnehmungsanalyse*, beginnt die eigentliche szenariobasierte strategische Planung. Dieser Schritt dient dazu, die *Annahmen und*

mentalen Modelle der Entscheidungsträger im Unternehmen in Bezug auf die Entwicklungen der eigenen Branche zu erfassen. Dafür haben wir das Instrument „360°-Stakeholder-Feedback“ entwickelt (Wulf, Krys, Brands, Meissner, & Stubner, 2011). Im Rahmen der Wahrnehmungsanalyse werden interne und externe Anspruchsgruppen in den strategischen Planungsprozess eingebunden. Zu den internen Anspruchsgruppen zählen typischerweise die Unternehmensführung, Vertreter des Bereichs Unternehmensstrategie bzw. Unternehmensentwicklung und die Leiter wichtiger Funktionsbereiche bzw. Sparten. Als externe Anspruchsgruppen können z.B. Lieferanten, Kreditgeber, Gesellschafter, Vertreter von Gewerkschaften, Kunden, Wettbewerber, Spezialisten aus Verbänden und Forschungseinrichtungen oder Szenarioexperten berücksichtigt werden. In der Regel werden zwischen 40 und 100 Experten befragt. Besonders wichtig ist es jedoch, dass der Kreis der ausgewählten Personen möglichst weit gefasst ist, um eine möglichst große Bandbreite von Sichtweisen auf die Branche und das Unternehmen zu erfassen. Die Wahrnehmungsanalyse trägt damit zu einer „Öffnung“ der strategischen Planung bei und vermeidet eine enge, unternehmensbezogene Sichtweise im Planungsprozess, die gerade bei hoher Umweltvolatilität sehr schädlich sein kann.

Die Vertreter der unterschiedlichen Anspruchsgruppen werden in einem zweistufigen Prozess gebeten, wichtige Einflussfaktoren für die Entwicklung des Unternehmens bzw. der Branche über den Planungszeitraum – üblicherweise drei bis fünf Jahre – zu nennen und diese Faktoren nach dem Grad ihrer Unsicherheit, d.h. danach, wie vorhersehbar die zukünftige Ausprägung der Faktoren ist, und nach ihrem Einfluss auf die zukünftige Profitabilität des Unternehmens zu bewerten. Ergebnis des 360° Stakeholder Feedbacks ist dann zunächst ein umfassender Überblick über die wichtigsten Einflussfaktoren, die die zukünftige Entwicklung des Unternehmens bzw. der Branche prägen.

Noch bedeutender ist jedoch gerade in volatilen Umfeldern ein zweites Ergebnis des 360° Stakeholder Feedbacks. So erlaubt das Instrument die Identifikation von so genannten „blinden Flecken“ (blind spots) und „schwachen Signalen“ (weak

signals). Als blinde Flecken werden Faktoren bezeichnet, die interne als wesentlich weniger bedeutend bzw. unsicher einschätzen als externe Anspruchsgruppen. Sie können ein Indikator für eine verengte Sichtweise – eben für „Blindheit“ – des Unternehmens für wichtige Einflüsse und Veränderungen im externen Umfeld sein. Schwache Signale sind dagegen solche Faktoren, die von nur sehr wenigen, meist externen Befragten genannt werden und die erste Indikatoren für wichtige Veränderungen im Umfeld des Unternehmens sein können. Blinde Flecken und schwache Signale zu erkennen und im Rahmen des strategischen Planungsprozesses zu diskutieren, dient dazu, den Blickwinkel des Managements zu erweitern, und ist so eine wichtige Grundlage für das Ableiten von erfolgreichen Strategien gerade in volatilen Umfeldern.

Im Rahmen einer szenariobasierten strategischen Analyse für den Elektronik Einzelhandel in Deutschland haben wir unter anderem festgestellt, dass die etablierten Elektronikhändler die Verfügbarkeit von Online-Preisvergleichen, durch die es für Kunden möglich ist, direkt vor Ort die günstigsten Beschaffungsmöglichkeiten für ein Elektrogerät zu ermitteln, stark unterschätzt haben (Wulf et al., 2012). Dieser Einflussfaktor stellt daher für etablierte Händler einen blinden Fleck dar. Angesichts der Volatilität in der Branche und eines zunehmenden Wettbewerbs zwischen „online“ und „offline“ Handel erscheint die Berücksichtigung dieses Einflussfaktors im Rahmen der strategischen Planung jedoch unumgänglich, und das 360° Stakeholder Feedback hat zu einer Öffnung des Denkens des Managements der betroffenen Händler beigetragen.

Im dritten Schritt der szenariobasierten strategischen Planung, der *Trend-und Unsicherheitsanalyse*, werden die Ergebnisse der Wahrnehmungsanalyse entlang von zwei Dimensionen visualisiert. Dafür wird auf das Instrument des *Impact/Uncertainty Grid* zurückgegriffen, um so genannte sekundäre Elemente, relevante Trends und kritische Unsicherheiten zu identifizieren. Das Impact/Uncertainty Grid hilft dabei, die Liste der Faktoren aus den 360° Stakeholder Feedbacks zu strukturieren und zu priorisieren. Es wurde bereits in den 1970er Jahren von Kees van der Heijden für den Szenarioplanungsprozess bei

Royal Dutch Shell entwickelt und findet seitdem breite Anwendung in Szenarioprozessen (van't Klooster & van Asselt, 2006).

Unter sekundären Elementen werden in diesem Zusammenhang alle Faktoren verstanden, die nur einen untergeordneten Einfluss auf die Unternehmensentwicklung besitzen. Zur Komplexitätsreduktion werden sie aus der weiteren Betrachtung im Prozess ausgeschlossen. Als Trends werden jene Faktoren bezeichnet, die einen verhältnismäßig großen Einfluss auf das Unternehmen besitzen, deren zukünftige Entwicklung jedoch gleichzeitig mit relativ großer Sicherheit vorhersehbar ist. Als kritische Unsicherheiten werden dagegen Faktoren bezeichnet, die einen großen Einfluss auf den zukünftigen Erfolg des Unternehmens haben und deren Entwicklung gleichzeitig unsicher ist. Diese Faktoren können auch als die wesentlichen Treiber für die Volatilität im Unternehmensumfeld angesehen werden. In der praktischen Anwendung des Instruments zeigt sich, dass meist nicht mehr als drei bis fünf kritische Unsicherheiten, d.h. Volatilitätshebel, identifiziert werden können.

So haben wir beispielsweise bei einer Szenarioanalyse der europäischen Luftverkehrsbranche festgestellt, dass aus Sicht der traditionellen Netzwerkfluggesellschaften in Europa – wie Lufthansa oder Air France-KLM – die geopolitische Stabilität, das Wirtschaftswachstum in Kernmärkten, der politische Einfluss von Luftverkehrsgesellschaften sowie Kundenerwartungen hinsichtlich Preis und Service die wichtigsten kritischen Unsicherheiten – und damit Volatilitätstreiber – darstellen (Wulf, Meissner, Brands, & Maul, 2011). Zur Entwicklung von Szenarien im folgenden Schritt des Prozesses der szenariobasierten strategischen Planung müssen diese kritischen Unsicherheiten zu zwei so genannten Schlüsselunsicherheiten verdichtet werden (van der Heijden, 2005). Als solche Schlüsselunsicherheiten bzw. verdichteten Volatilitätstreiber haben wir für die europäische Luftverkehrsindustrie die Regulierung der Branche in Europa sowie die Preissensibilität der Kundenbasis ermittelt (Wulf & Maul, 2011).

Die Entwicklung von vier Szenarien steht im Mittelpunkt des vierten Schrittes unseres Prozesses der szenariobasierten strategischen Planung, der *Szenarioentwicklung*. Dafür wird das von Kees van der Heijden (2002) entwickelte Instrument der *Szenariomatrix* eingesetzt (van't Klooster & van Asselt, 2006). Diese Matrix bildet in ihren vier Quadranten jeweils ein Entwicklungsszenario für das Unternehmen ab. Als Dimensionen der Szenariomatrix dienen die im vorangegangenen Prozessschritt abgeleiteten Schlüsselunsicherheiten, d.h. die verdichteten Volatilitätstreiber, für die jeweils Extremausprägungen definiert werden. Entlang dieser Dimensionen werden vier Szenarien beschrieben. Als Grundlage für diese Beschreibung dient das so genannte Einflussdiagramm, in dem die Zusammenhänge zwischen Trends, kritischen Unsicherheiten und Schlüsselunsicherheiten aufgezeigt werden. Letztlich verdeutlichen die Szenarien die Bandbreite möglicher Entwicklungen und damit die Volatilität, der sich das Unternehmen ausgesetzt sieht.

So haben wir beispielsweise im Rahmen der beschriebenen Szenariostudie für die europäische Luftverkehrsbranche als wichtigste Ausprägungen der Volatilität in der Branche eine sinkende bzw. steigende Preissensibilität der Kunden sowie eine offene bzw. protektionistische Regulierung in Europa identifiziert. Daraus leiten sich vier Szenarien ab, die im Überblick in Abbildung 37 dargestellt sind (Wulf & Maul, 2011).

Für die vier Szenarien werden im fünften Schritt des Prozesses der szenariobasierten strategischen Planung, der *Strategiedefinition*, konkrete Strategien und Handlungspläne erarbeitet. Hierfür haben wir das Instrument des *Strategieleitfadens* entwickelt. Im Rahmen des Strategieleitfadens werden zunächst für jedes Szenario spezifische Strategieempfehlungen hinsichtlich Positionierung, Gestaltung des Geschäftssystems und operativer Umsetzung abgeleitet. Anschließend wird geprüft, inwieweit Übereinstimmungen zwischen den Strategieempfehlungen für die vier Szenarien bestehen. Die in allen Fällen gleichen Empfehlungen ergeben dann die Kernstrategie, welche das Unternehmen in jedem Fall umsetzen kann, da sie von der konkreten zukünftigen

Entwicklung unabhängig ist. Strategieempfehlungen, die sich zwischen den Szenarien unterscheiden, werden als Strategieoptionen behandelt, die das Unternehmen in seiner Planung berücksichtigen muss, die aber in der Regel nur umgesetzt werden, wenn die tatsächliche Umweltentwicklung in die Richtung des betreffenden Szenarios führt.

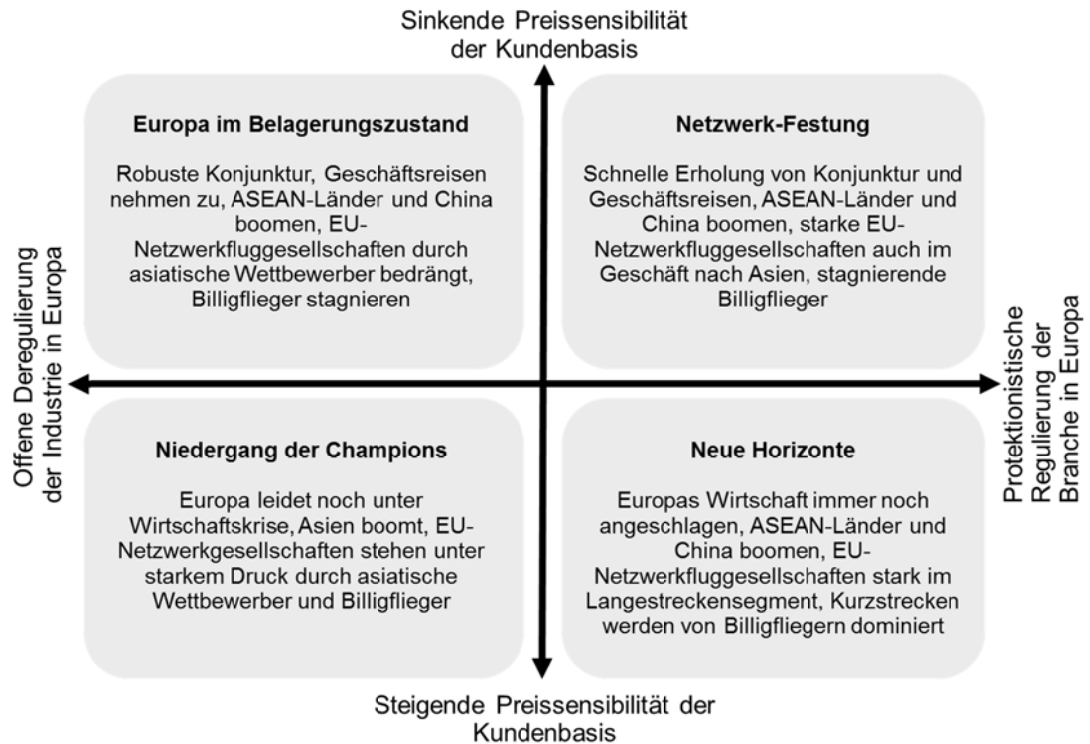


Abbildung 39: Szenarien für die europäische Luftverkehrsbranche bis 2015 im Überblick

Ergebnis der szenariobasierten strategischen Planung sind somit nicht vier einzelne Strategien, zwischen denen ein Unternehmen wählen muss und die die Komplexität der strategischen Planung deutlich erhöhen würden. Vielmehr zeigt die Anwendung der szenariobasierten strategischen Planung in der Praxis, dass Strategieempfehlungen für unterschiedliche Szenarien häufig in ihrer grundsätzlichen Ausrichtung sehr ähnlich sind. Unterschiede bestehen meist nur in der jeweiligen Betonung einzelner Strategieelemente und Maßnahmen. So folgt beispielsweise aus unserer Analyse der europäischen Luftverkehrsindustrie, dass Netzwerkfluggesellschaften trotz der Volatilität ihrer Umfeldern, die sich in den vier

Szenarien äußert, in jedem Fall eine strategische Ausrichtung auf folgende drei Felder anstreben sollten:

- 1 Sie müssen Programme zur Effizienzsteigerung weiterführen, die ihnen helfen, ihre im Vergleich zu europäischen Billigfluggesellschaften und asiatischen Wettbewerbern ungünstige Kostensituation zu verbessern.
- 2 Sie müssen kundenorientierte Innovationen in allen Bereichen des Geschäftssystems vorantreiben, um insbesondere im Wettbewerb mit asiatischen Konkurrenten weiter mithalten zu können, aber auch um Billigfluggesellschaften auf Distanz zu halten.
- 3 Sie müssen eine verstärkte Lobbyarbeit betreiben, um insbesondere asiatischen Wettbewerbern den Marktzugang nach Europa zu erschweren.

Ob alle drei Bereiche gleichmäßig betont werden oder eine Schwerpunktverlagerung in die eine oder andere Richtung erfolgen muss, richtet sich dann nach der tatsächlichen Entwicklung des Wettbewerbsumfelds, d.h. nach dem tatsächlich eintretenden Szenario. Das Schaffen und der Ausbau eigener Billigfluggesellschaften kann darüber hinaus als strategische Option angesehen werden, die insbesondere bei zunehmendem Wettbewerbsdruck auf europäische Netzwerkluftverkehrsgesellschaften von Seiten der Billigfluggesellschaften gezogen werden kann.

Welche Elemente der Kernstrategie besonders betont und welche Strategieoptionen gegebenenfalls verfolgt werden, wird im letzten Schritt der szenariobasierten strategischen Planung, der *kontinuierlichen Kontrolle*, festgelegt. Hierfür steht mit dem *Szenario Cockpit* ein Instrument zur Verfügung, das die tatsächliche Volatilität der Umwelt, d. h. die Schwankungen bei den kritischen und Schlüsselunsicherheiten, erfasst. Dadurch wird deutlich, welches der vier Szenarien der realen Entwicklung am ehesten entspricht und welche strategischen Maßnahmen dementsprechend durchgeführt werden sollten.

4. Zusammenfassung

Der Prozess der szenariobasierten strategischen Planung stellt einen Ansatz dar, mit der Unternehmen angesichts zunehmender Umweltvolatilität besser für die Zukunft planen können. Traditionelle Ansätze der strategischen Planung sind in solchen Situationen nur eingeschränkt geeignet, da sie in der Regel nur eine einzelne strategische Entwicklungsrichtung vorsehen und bei starken Veränderungen in der Unternehmensumwelt nur unzureichende Anpassungsmöglichkeiten eröffnen. Darüber hinaus tragen traditionelle Instrumente der strategischen Planung häufig eher zu einer stärkeren Formalisierung der strategischen Planung bei und fördern kein offenes, strategisches Denken, das eigentlich im Zentrum der Strategieentwicklung – gerade in volatilen Umfeldern – stehen sollte.

Mit der szenariobasierten strategischen Planung stellen wir daher einen Ansatz vor, der nicht nur eine einzelne strategische Entwicklungsrichtung vorsieht, sondern vielmehr die zunehmende Umweltvolatilität, die viele Branchen heute kennzeichnet, aktiv aufgreift und eine strategische Planung für einen durch diese Volatilität geprägten Optionenraum ermöglicht. Gleichzeitig fördert dieser Ansatz durch die Öffnung der strategischen Planung und die Einbeziehung externer Anspruchsgruppen das strategische Denken und ermöglicht dem Management, seine eigenen Denkhaltungen zu hinterfragen. Trotz dieser größeren Breite der berücksichtigten Entwicklungen und Maßnahmen erhöht die szenariobasierte strategische Planung nicht die Planungskomplexität. Vielmehr besteht das Ergebnis der szenariobasierten strategischen Planung in einem Bündel strategischer Maßnahmen, die in jedem Fall für die Entwicklung des Unternehmens positiv sind, die jedoch abhängig von der tatsächlichen Entwicklung der Umwelt eine leicht unterschiedliche Schwerpunktsetzung erfordern. Insofern erhöht die szenariobasierte strategische Planung die Flexibilität der strategischen Planung. Und dies ist angesichts zunehmend volatiler Umfeldern in vielen Branchen sehr wünschenswert.

BIBLIOGRAPHY

- Bishop, P., Hines, A., & Collins, T. 2007. The Current State of Scenario Development - An Overview of Techniques. ***Foresight***, 9(1): 5-25.
- Bordo, M., Eichengreen, B., Klingebiel, D., & Martinez-Peria, M. 2001. Is the Crisis Problem Growing More Severe? ***Economic Policy***, 16(32): 51-82.
- Bradfield, R. M. 2008. Cognitive Barriers in the Scenario Development Process. ***Advances in Developing Human Resources***, 10(2): 198-215.
- Chermack, T. J., Lynham, S. A., & Ruona, W. E. A. 2001. A Review of Scenario Planning Literature. ***Futures Research Quarterly***, 17(2): 7-31.
- Dyer, J. R. G., Johansson, A., Helbing, D., Couzin, I. D., & Krause, J. 2009. Leadership, Consensus Decision Making and Collective Behaviour in Humans. ***Philosophical Transactions of the Royal Society***, 364(1518): 781-789.
- Eisenhardt, K. M., & Sull, D. N. 2001. Strategy as Simple Rules. ***Harvard Business Review***, 79(1): 106-116.
- Grant, R. M. 2003. Strategic Planning in a Turbulent Environment: Evidence from the Oil Majors. ***Strategic Management Journal***, 24(6): 491-517.
- Miller, C. C. 2008. Decisional Comprehensiveness and Firm Performance: Towards a More Complete Understanding. ***Journal of Behavioral Decision Making***, 21(5): 598-620.
- Mintzberg, H. 1994a. The Fall and Rise of Strategic Planning. ***Harvard Business Review***, 72(1): 107-114.
- Mintzberg, H. 1994b. ***The Rise and Fall of Strategic Planning***. New York: The Free Press.
- Moyer, K. 1996. Scenario Planning at British Airways - A Case Study. ***Long Range Planning***, 29(2): 172-181.
- Porter, M. E. 1985. ***Competitive Advantage: Creating and Sustaining Superior Performance***. New York: The Free Press.
- Ramirez, R., Selsky, J. W., & van der Heijden, K. 2008. ***Business Planning for Turbulent Times***. London: Earthscan
- Rigby, D. K., & Bilodeau, B. 2007. Selecting Management Tools Wisely. ***Harvard Business Review***, 85(12): 20-22.
- Schoemaker, P. 1995. Scenario Planning: A Tool for Strategic Thinking. ***Sloan Management Review***, 37(2): 25-40.

- Schwartz, P. 1996. ***The Art of the Long View: Planning for the Future in an Uncertain World.*** New York: Doubleday Publishing.
- Schwenker, B., & Boetzel, S. 2007. ***Making Growth Work - How Companies can Expand and Become More Efficient.*** Berlin: Springer.
- Shell. 2003. Scenarios - An Explorer's Guide. London: Shell International
- van't Klooster, S. A., & van Asselt, M. B. 2006. Practicing the Scenario-Axes Technique. ***Futures***, 38(1): 15-30.
- van der Heijden, K. 2005. ***Scenarios: The Art of Strategic Conversation.*** Chichester: Wiley.
- van der Heijden, K., Bradfield, R., Burt, G., Cairns, G., & Wright, G. 2002. ***The Sixth Sense – Accelerating Organizational Learning with Scenarios.*** Chichester: John Wiley & Sons.
- Wulf, T., Krys, C., Brands, C., Meissner, P., & Stubner, S. 2011. Ein Radar für die Strategieplanung. ***Harvard Business Manager***, 3: 56-62.
- Wulf, T., & Maul, B. 2011. Eine Branche hängt in der Luft. ***Zukunftsmanager***, 3: 8-11.
- Wulf, T., Meissner, P., Brands, C., Ernst, B., Reinecke, B., Yazitzis, A., Fink, M., & Finke, A. 2012. Der Markt für Unterhaltungselektronik in Deutschland - Szenarien als Basis für Erfolgreiche Wachstumsstrategien, ***HHL Working Paper Series.*** Leipzig.
- Wulf, T., Meissner, P., Brands, C., & Maul, B. 2011. Futures Scenarios for the European Airline Industry, ***HHL Working Paper Series.*** Leipzig.
- Wulf, T., Meissner, P., & Stubner, S. 2010. Szenariobasierte Strategische Planung - Ein Ansatz zur Integration der Szenarioplanung in die Strategische Planung. In J. Gausemeier (Ed.), ***Vorausschau und Technologieplanung.*** Paderborn: Universität Paderborn.

IV. ORGANIZATIONAL AMBIDEXTERITY AND FAMILY FIRM PERFORMANCE

Paper C

Published in

Journal of Small Business and Entrepreneurship, Vol. 25(2), 2012, pp. 217-229

<http://www.tandfonline.com/doi/abs/10.1080/08276331.2012.10593570?journalCode=rsbe20#.UmTdsfm-2m4>

Stephan Stubner, W. Henning Blarr, Christian Brands, Torsten Wulf

Abstract

In our paper, we introduce the concept of organizational ambidexterity (OA) to family firm research and develop hypotheses regarding the impact family influence has on OA and on subsequent firm performance. We argue that as family influence increases family firms achieve higher degrees of OA and firm performance. We empirically test our hypotheses on a dataset of 104 family firms and show that family influence leads to higher degrees of ambidexterity especially through family power and cultural alignment between family interests and firm interests. Furthermore, we show that higher levels of OA in family firms also result in better financial performance. We contribute to family firm research by introducing organizational ambidexterity into the discussion about family firm performance and family firm heterogeneity and thus provide an approach for integrating strategy and family firm research.

1. Introduction

In our paper, we analyze the impact of family influence on the level of organizational ambidexterity (OA) as well as the subsequent effect of higher levels of organizational ambidexterity on family firm performance. Although research on the performance impact of family influence is one of the dominant streams in the family firm literature (e.g. Chrisman, Chua, & Litz, 2004; Dyer, 2006; Habbershon & Williams, 1999; Miller, Le Breton-Miller, Lester, & Cannella Jr, 2007), findings in this field are so far inconclusive (Chrisman, Chua, Pearson, & Barnett, 2010; Dyer, 2006; Rutherford, Kuratko, & Holt, 2008). Many scholars regard the heterogeneity of family firms as one reason for this lack of consistent results (Olson et al., 2003). They claim that a better understanding of the causes of this heterogeneity is needed in order to further develop family performance research (McConaughy Daniel, Matthews, & Fialko, 2001). Accordingly, researchers have called for further analyses of factors that are responsible for differences among family firms and their performance (Melin & Nordqvist, 2007; Sharma, 2004; Westhead & Howorth, 2006).

We believe that OA is such a factor capable of providing a better understanding of the heterogeneity among family firms and resulting performance differences (Webb, Ketchen, & Ireland, 2010). The term describes the ability of organizations to pursue two different approaches at the same time: they are able to show a strong exploitative orientation to improve the performance of current business activities, for example, through higher efficiency (March, 1991) as well as an explorative orientation geared toward innovation and flexible operations to develop and harvest future business opportunities (Tushman & O'Reilly III, 1996). Despite the potential positive relationship between OA and family firm performance (Chrisman et al., 2010; Dyer, 2006; Rutherford et al., 2008), surprisingly, to the best of our knowledge, thus far no scientific study has examined this relationship. We argue that because of these organizations' specific characteristics family firms are especially suited for exploring future growth opportunities and exploiting current business processes simultaneously (Webb et al., 2010) and that the

resulting high level of OA has a positive influence on family firm performance (Simsek, 2009; Tushman & O'Reilly III, 1996).

Based on family firm research and literature on OA, we develop a set of hypotheses regarding the relationship between family influence and OA and the resulting impact on family firm performance. We empirically test our hypotheses on a sample of 104 family firms and show that certain elements of family influence lead to higher OA, which, in turn, has a positive effect on performance.

Our paper contributes to the literature in two ways. First, we add to existing research on family firm characteristics by providing a link between family firms and strategic management research (Zahra & Sharma, 2004). Second, we investigate how variables associated with family firms influence affect OA and consequently family firm performance. This also broadens the understanding of family firm heterogeneity and family firm success.

2. Theory and Hypotheses

Organizational ambidexterity refers to the ability of firms to simultaneously pursue explorative activities that secure future business growth and exploitative activities that streamline current operations to maximize profits (Benner & Tushman, 2003). Such firms are not only efficient in managing today's business demands but also flexible enough to adapt to changes in the increasingly volatile, uncertain, and dynamic environment (Hamel, 2000) to ensure long-term survival (Gibson & Birkinshaw, 2004). While focusing on either skill set is conceptually rather easy (Tushman & O'Reilly III, 1996), achieving a high level of exploration and exploitation at the same time is a complex undertaking as it involves competition for scarce resources (Simsek, 2009). Explorative and exploitative activities require substantially different, sometimes even conflicting, structures, processes, capabilities, and cultures (Sheremata, 2000; Tushman & O'Reilly III, 1996). Consequently, conflicts, contradictions, and inconsistencies are predictable. While earlier studies often regarded the trade-off necessary to achieve high levels of exploration and exploitation as impossible to implement, more recent studies

presented a range of solutions to support OA, including structural separation (O'Reilly III & Tushman, 2004) and non-structural, context-related elements such as culture, values, or mindset (Eisenhardt & Martin, 2000). We argue that family firm characteristics provide an additional perspective to discuss OA. More specifically, in family firms two different but mutually influencing systems interact: the family system and the firm system (Westhead, 2003). We believe that the resulting characteristics of family firms (Casillas, Moreno, & Barbero, 2010), especially the influence of the family, enable them to reach a high level of balance between exploration for future growth and exploitation of current processes (Webb et al., 2010). Family firms are able to create an environment that provides the necessary strong focus on performance as well as on social support (Bartlett & Ghoshal, 1994).

Based on the F-PEC scale (Astrachan, Klein, & Smyrnios, 2002; Klein, Astrachan, & Smyrnios, 2005), we differentiate family influence into three dimensions (family power, family experience and family culture) because we believe that all three have very distinct, but complementary, effects on OA.

When family firms show a high level of cultural alignment, this means that the family is committed to the company and that family and firm goals are aligned (Klein et al., 2005). Family firms then often take a long-term perspective (Carney, 2005; Chrisman, Chua, & Steier, 2003; Habbershon, Williams, & MacMillan, 2003; Le Breton-Miller & Miller, 2006), as one of the main objectives of the involved family is long-term survival, that is, the transfer of the firm to the next generation (Le Breton-Miller & Miller, 2006; Ward, 1988; Westhead, 2003). The resulting need to develop an entrepreneurial mindset to explore new opportunities (Ireland, Hitt, & Sirmon, 2003; Kellermanns & Eddleston, 2006) is supported by their goal preference that is not solely focused on financial targets (Astrachan & Jaskiewicz, 2008) and short-term profit maximization (Morck, Shleifer, & Vishny, 1990; Morck & Yeung, 2003). This makes family firms more apt to explore future business opportunities (Ward, 1987) and enables them to be explorative.

However, family firms are also often seen as very cost efficient (Anderson & Reeb, 2003; Carney, 2005), as the profitability of family firms is directly connected to the wealth of the owning family (Anderson & Reeb, 2003). With a long-term orientation to ensure company survival over several family generations, family firms also develop a reputation for high quality (Davis, 1983; Kets de Vries, 1993; Ward, 1988). Additionally, family firms have a tendency to apply centralized organizational structures (Bartholomeusz & Tanewski, 2006) and decision making (Lindow, Stubner, & Wulf, 2010), which indicates the unwillingness to give up personal power and control owing to the dual roles held by family members (Carney, 2005). This focus on optimization and quality together with the centralized management approach then results in efficient exploitation of existing business activities (Tagiuri & Davis, 1996). Taken together, the impact of family influence on exploration and exploitation in the family firm should then result in a high level of organizational ambidexterity. This is reflected in hypothesis 1a:

Hypothesis 1a: A high level of family influence on a firm's culture leads to a higher level of organizational ambidexterity in the firm.

The power dimension of family influence measures the extent to which a family influences a firm through direct ownership, active governance, and involvement in management functions (Astrachan et al., 2002). Family influence is thus a measure of how easily a family is able to influence firm behavior to impose family goals on the family firm.

The aim to realize OA will lead to a constant state of competition for scarce resources that need to be allocated between exploitative and explorative activities (Simsek, 2009). Especially in family firms that often are organized as one unit (Whiteside & Brown, 1991), ongoing alignment of operative and strategic activities in an organizational and cultural context within one unit is needed (Bartlett & Ghoshal, 1990, 1994; Burgelman, 1991). A high level of power then facilitates decision-making. It enables organizations to impose decisions between explorative and exploitative objectives and toward goals that are family-related. The family

firm tendency toward more centralized structures and decision-making (for example Bartholomeusz & Tanewski, 2006) further facilitates a direct impact on the firm's operations. This creates an environment where resources are swiftly and efficiently allocated by the family exerting its controlling power when making investment decisions. This influence of family power is reflected in hypothesis 1b:

Hypothesis 1b: A high level of family power in a firm leads to a higher level of organizational ambidexterity.

The experience dimension of family influence measures how much experience a family has in managing and governing the firm, for example, through long-term ownership. Attaining an ambidextrous organization requires long-term experience in building an organization that unites contradictory activities within a company (Gibson & Birkinshaw, 2004). Family firms are often characterized by being multi-generational (Zellweger & Nason, 2008) and having a desire to achieve stakeholder wealth to preserve the family heritage for future generations (Le Breton-Miller & Miller, 2006). Higher levels of family experience should thus indicate more experience in building an ambidextrous organization. This reasoning is reflected in hypothesis 1c:

Hypothesis 1c: A high level of family experience leads to a higher level of organizational ambidexterity.

Research on organizational ambidexterity has shown that an increased level of OA leads to a higher and more sustainable financial performance (He, 2004; Lubatkin, Simsek, Ling, & Veiga, 2006; Simsek, Heavey, Veiga, & Souder, 2009), as the company shows efficiency in managing current business demands, while at the same time possessing the flexibility necessary to adapt to new challenges and opportunities in the environment (Benner & Tushman, 2003; Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004).

Although the costs associated with achieving a high level of ambidexterity are substantial (Gibson & Birkinshaw, 2004; Yang & Atuahene-Gima, 2007) and many companies remain unsuccessful in their efforts and fail (O'Reilly III & Tushman, 2004), we believe that the special context of a family firm eases ambidextrous thinking and its implementation. Consequently, higher levels of ambidexterity lead to a better economic performance among family firms, as reflected by hypothesis 2:

Hypothesis 2: A high level of organizational ambidexterity in a family firm positively influences its economic performance.

The full research model is graphically summarized in Figure 40.

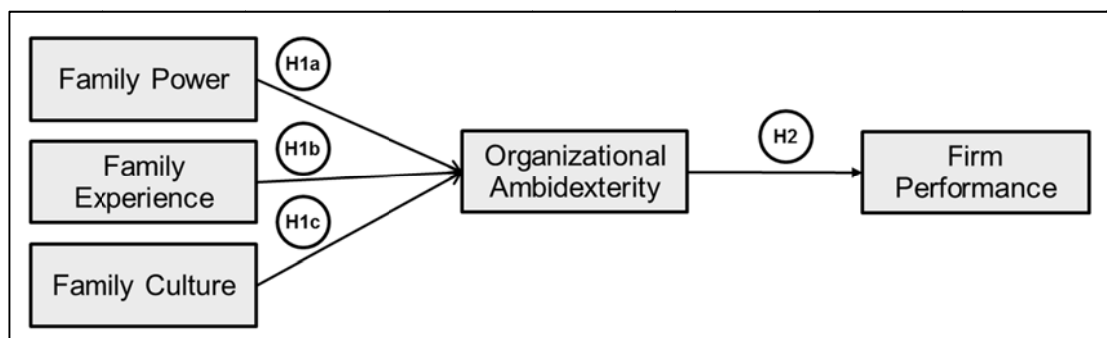


Figure 40: Research Model

3. Methodology

3.1. Research Design and Sample Generation

To test our hypotheses, we developed a large-scale empirical instrument (Backhaus, Erichson, Plinke, & Weiber, 2010) and addressed it to top-level managers of family firms to gain access to primary data (for example Chrisman et al., 2004). We developed our questionnaire using methodologies and recommendations from market research literature (Berekoven, Ecker, & Ellenrieder, 2009) and took methodological precautions for reducing concerns over response biases (Dielman, 1991; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Additionally, we conducted a pre-test involving several family firm executives and researchers to further optimize our questionnaire.

We used a convenience sample as the address base and sent the questionnaires to 2,200 single respondents who were top-level managers in family firms in Germany. The mailing was sent out in June 2009 and accompanied by a personalized letter explaining the research project (for example Phan & Hill, 1995). After a two-wave mailing initiative, 209 companies returned the questionnaire (a response rate of 9.5%). This rate is similar to empirical studies previously conducted on family firms (for example Rutherford et al., 2008; Schulze, Lubatkin, Dino, & Buchholtz, 2001). Before proceeding to the empirical analyses, we verified the quality of the created dataset (Burns, 2008; Tabachnik & Fidell, 2007). First, we inspected the minimum and maximum values, means, and standard deviations from every variable for plausibility. Here, we found no mistakes regarding the accuracy of the data entry. Although we did not find any cases of wrong data entry, several questionnaires had missing values in different parts of the questionnaire. To solve this problem in the most proper way (Draper & Smith, 1998), we deleted these cases from the dataset, reducing the final sample to 104 companies.

Due to the cross-sectional survey setup of this study, we checked for potential biases, as these could reduce the validity of the results. Here, a known concern in empirical research is that the characteristics of respondents of a study may differ from those of non-respondents (Armstrong & Overton, 1977; Kanuk & Berenson, 1975; Oppenheim, 2000). Using the Kolmogorov–Smirnov test (Young, 1977) and the non-parametric Mann-Whitney U-test, we tested for differences between early and late responses. Our analyses revealed no statistically significant response biases within this study. Beside non-response bias, the influence of common methods bias has been an important concern in management research (Podsakoff et al., 2003). This bias describes variance in results that is attributable to the applied measurement method, rather than to the constructs that the measures represent (Podsakoff et al., 2003). Harman's single-factor test is the most widely

known approach for assessing common method bias in a single-method research design (Malhotra, Kim, & Patil, 2006) (Malhotra, Kim, and Patil 2006). Again, our results did not show any indication of being biased. To finally examine the internal consistency and reliability of the used constructs, we computed Cronbach's alpha (Cronbach, 1987). For all constructs used in this study, we achieved highly satisfactory results.

3.2. Measures

Organizational ambidexterity. As the field of organizational ambidexterity is a relatively new domain, there is no commonly accepted measure of OA (Lubatkin et al., 2006). While Benner and Tushman (2003) defined and conceptualized OA in two dimensions and measured differences in exploration and exploitation in a firm's technological horizon, He and Wong (2004) designed a measure based on product design differences, related to exploration and exploitation. Lubatkin (2006) combined the measures and developed a way to assess organizational ambidexterity by using a 12-item measure, with six items asking for exploratory orientation and six items asking for exploitative orientation. Managers assess their firms' behavior over the past years using a five-point Likert scale, ranging from one (strongly disagree) to five (strongly agree). To derive the level of OA, the individual values along the six dimensions of exploration and exploitation were added. As we regard this construct as the most appropriate so far, we selected the construct from Lubatkin (2006) for this study.

Family influence. Family influence is the main independent variable in our study, which we measured on a continuous and multidimensional scale based on the F-PEC scale of family influence (Astrachan et al., 2002; Klein et al., 2005). Family influence is thus measured with a construct focusing on three dimensions: family power, family experience, and family culture. The power dimension measures a family's influence on the company with regard to family ownership, governance, and management. We asked respondents about the percentage of family

members sharing company ownership and the percentage of family members on the management and governance boards.

We measured the experience dimension of the F-PEC scale by asking respondents to indicate the generation of the family owning the business, the generation that is active on the management board, and the generation of the family active on the governance board. As suggested by Klein, Astrachan, and Smyrnios (2005), we weighted the experience of the company with respect to the generation currently present in the firm. Thus, the first generation was re-coded as zero, meaning there exists no benefit of generational experience, the second generation was assigned a weight of 0.5, the third generation a weight of 0.75, the fourth generation a weight of 0.875 and so forth.

The final dimension, culture, was measured with 13 items reflecting a family's commitment and contribution to the firm, the alignment of family and business goals as well as pride and loyalty toward the company. Using the F-PEC scale allowed us to measure and compare various levels of family influence among the firms in our sample and to include family influence as an independent variable in our analysis (Cliff & Jennings, 2005).

Firm performance. We measured the financial performance of the participating firms based on the respondents' subjective evaluations, for several reasons. On the one hand, gathering and accurately interpreting a family firm's financial performance is challenging. The profits may be distorted by industry-specific factors and there is barely any reliable access to performance data for privately held firms (Dess & Robinson Jr, 1984). In addition, financial measures often fail to adequately reflect the extent to which short- and long-term objectives have been achieved (Geringer & Herbert, 1991) (Geringer and Herbert 1991). Overall, strategic management researchers have increasingly employed perceived performance measures and proved them to be valid complements for objective performance measures (Ramanujam & Venkatraman, 1987). To measure perceived performance, we asked the respondents to rate the financial

performance of their firms against that of their main competitors (Slater & Narver, 1993), against their objectives (actual performance vs. planned projections), and against the industry average (Geringer & Herbert, 1991). Finally, to synthesize the items to one reliable measure, we combined all three indexes into one final index “Firm Performance,” ranging from one (significantly worse) to five (significantly better).

Control variables. In addition to these main constructs, we added firm size as a control since several studies indicated an influence of size on financial performance (Daily & Dollinger, 1992). We used the number of employees to measure firm size.

4. Analysis and Results

Table 1 indicates the descriptive statistics for all variables of this study, including the minimum and maximum, mean values, and standard deviations. On average, the participating family firms possess a degree of organizational ambidexterity of 7.028 ($SD=1.048$) and a degree of family influence comprising *F-Power* of 76.26 ($SD=20.14$), *F-Experience* of 52.27 ($SD=33.32$), and *F-Culture* of 91.99 ($SD=0.69$).

Variables	1	2	3	4	5	6
Main Variables						
1. Family Power	1					
2. Family Experience	0.182	1				
3. Family Culture	.061	0.58	1			
4. Organizational Ambidexterity	.191	.083	.230 *	1		
5. Firm Performance	.175	-.060	.133	.220 *	1	
Control Variable						
6. Firm Size	-.251 *	.145	.121	.122	.017	1
Descriptive Statistics						
N	104	104	104	104	104	104
Minimum	31.33	0.00	46.67	4.66	-1.00	5.48
Maximum	100	98.44	100	9.5	2	256.9
Mean	76.2682	52.3741	91.9904	7.0287	0.6669	24.7346
Std. Deviation	20.1465	33.3203	9.0045	1.0481	0.6898	34.0790

n = 125; *** p < .001; ** p < .01; * p < .05; ^t p < .10

Table 1: Pearson Correlations Analysis and Descriptive Statistics

To test our hypotheses, we conducted ordinary least squares (OLS) regression analyses. Table 2 presents the results of these regression analyses for the dependent variable “organizational ambidexterity” (Hypotheses 1a–1c). For this, we estimated two models. Model 1 includes only the control variables. In model 2, we added the main effects of family influence, specifically the variables family power, family experience, and family culture. The models explain between 1.5% and 7% of the variance in OA, but only the second model is significant ($p < .05$). Additional tests show that the requirements of homoscedasticity and normal distribution are met for all models and that no collinearity can be observed.

Standardized Coefficients (β)	Model 1 OA	Model 2 OA
Size	.120	.151
Family Power	-	.215 *
Family Experience	-	.010
Family Culture	-	.198 *
R ²	.015	.11
Change in R ²		.091
Adj. r ²	.005	.070
Level of significance	.216	.024

*** $p < .001$; ** $p < .01$; * $p < .05$; ^t $p < .10$

OA, Organizational Ambidexterity

Table 2: Regression Analysis using Organizational Ambidexterity as Dependent and Family Power, Experience, and Culture as Independent Variables

Model 2 shows that two of the three hypotheses regarding the impact of family influence on OA, namely hypotheses 1a and 1b, are supported. Hypothesis 1a proposes a positive relationship between family power and OA. This hypothesis is supported by a positive and significant coefficient for the variable “family power” ($\beta = .215$, $p < .05$). In support of hypothesis 1b, we find a positive and significant relationship between “family culture” and OA ($\beta = .198$, $p < .05$). Hypothesis 1c, however, which proposed a positive impact of family experience on OA, is not

supported. In addition, the control variable “firm size” does not have a positive impact on OA.

To test hypothesis 2, we estimated another set of two regression models. Hypothesis 2 proposes a positive relationship between OA and firm performance. Table 3 shows the results of OLS regression analyses for the dependent variable “firm performance.” Model 1 includes only the control variable. In model 2, we added the main effect of organizational ambidexterity. The two models explain up to 4.8% of the variance in firm performance, but only model 2 shows a tendency toward significance ($p=.081$). Additional tests show that the requirements of homoscedasticity and normal distribution were met for all three models and that no collinearity was observed.

Standardized Coefficients (β)	Model 1 Performance	Model 2 Performance
Size	.017	-.010
Organizational Ambidexterity	-	.221 *
R ²	.000	.048
Change in R ²	-	.048
Adj. r ²	-.010	.030
Level of significance	.865	.081

*** $p < .001$; ** $p < .01$; * $p < .05$; ^t $p < .10$

Table 3: Regression Analysis using Firm Performance as Dependent and Organizational Ambidexterity as Independent Variable

As the significant coefficient of the variable OA in model 2 ($\beta=.221$, $p<.05$) indicates, our results support hypothesis 2, which proposes a positive impact of OA on firm performance. The influence of the control variable “firm size,” however, was again insignificant ($\beta=.017$).

In summary, our regression analyses show that increasing levels of family influence lead to higher levels of OA for two of the three family influence

dimensions of the F-PEC. In addition, we find an indication that an increase in the level of OA also positively influences firm performance. Thus, three of our four hypotheses are supported.

5. Discussion and Conclusion

In our paper, we developed and tested hypotheses regarding the relation between family influence and organizational ambidexterity in family firms as well as between OA and firm performance. Our results indicate that an increase in family influence, especially on a firm's culture and family power, leads to a higher level of OA in an organization. Subsequently, we analyzed and tested the relationship between OA in an organization and economic performance for the same set of family firms. Here, our results show that a higher level of ambidexterity in family firms indeed leads to a better economic performance.

Discussing our results in more detail, we first analyzed the role of family influence on the level of ambidexterity within an organization. In line with our expectations, our analyses confirmed the positive effects of family influence on OA. This holds particularly true for the level of family firm culture positively influencing the level of OA. Furthermore, the level of family power (measured through a family's share of ownership as well as the percentage of family members within the management and governance board) positively influences a firm's ambidextrous orientation. Against our expectations, we found no significant results for the impact of the level of family experience on a company's level of organizational ambidexterity.

Our findings are in line with some other studies examining family influence (Denison, Lief, & Ward, 2004; Dyer, 1988; Miller & Breton-Miller, 2005). Recent studies, for example, frequently mention the importance a family's culture has in shaping a positive atmosphere within a company (Denison et al., 2004; Miller & Breton-Miller, 2005; Miller et al., 2007) and the resulting performance advantages. While we do not analyze how family influence in culture leads to higher OA, we believe that our studies provide additional support for these findings. We also analyzed and tested the relationship between ambidexterity in a family firm and

economic performance. Our results indicate that a higher level of OA leads to a better economic performance among family firms. This is in line with findings from strategy research in general (Gibson & Birkinshaw, 2004; Hill & Birkinshaw, 2006) and supports the growing call for more transfer between research streams as strategy and family firm research.

Some limitations that potentially could reduce the general transferability of our results need to be addressed. We used a cross-sectional design collecting all sample information in 2009. In some of the analyzed relationships, it might thus not be possible to infer causality as we do not look at longitudinal data. Nevertheless, previous studies found that particular variables relating to family influence and culture are relatively stable over time (Craig & Moores, 2005). In addition, our selection sample and data are not perfectly random with all included family businesses located in Germany, and we used a convenience sample. However, this is in line with previous research on family firms (Kellermanns & Eddleston, 2006), and we do not expect this to be of major concern. We gathered our data mainly by relying on primary self-assessment information. Although this might lead to biased information deviating from objective data, this approach is common practice in family business research (Lyon, Lumpkin, & Dess, 2000). Furthermore, we validated several samples with secondary information from public sources to ensure a high level of data quality.

Our final sample size of 104 might also raise concerns relating to statistical power, which we tried to mitigate by using appropriate tests confirming data validity. Another limitation of our findings relates to the sample focus on respondents stemming from a strong focus on top executives working in family firms. However, previous studies found that especially top management members are considered a reliable source of information (Chaganti, Chaganti, & Vijay, 1989) (Glick, Huber, Miller, Doty, & Sutcliffe, 1990), and thus, we believe that this approach is suitable for our chosen research setup. Finally, most of our results can merely be seen as indications as they explain only up to 7% in the variance of the dependent variables. Nevertheless, these findings are stable and contribute to our

understanding of family firm performance. Based on our analyses, we identify several directions for future research. First, we used elements of the F-PEC scale to measure family influence. Although this measure is an accepted construct in family firm research, other measures might be able to better explain the impact that a family has on developing OA in a family firm. Thus, more research in this field would be necessary using other constructs for family influence, or even comparing several constructs in one study. Furthermore, family influence measures do not reflect how family firms actually achieve OA. We believe that family influence has an impact on the behavior of the family firm and that a better understanding of this behavior would enable us to derive more concrete statements about the how and when of creating OA in the organization. In line with this research direction, future studies could also look at the type of OA realized in family firms (see Simsek et al. 2009 for an overview of the different identified types of OA in a firm). Finally, to draw conclusions on the heterogeneity of family firms across countries, more research using a cross-country setup is needed.

In summary, our paper contributes to the understanding of family firms by introducing organizational ambidexterity into the discussion about family firm performance and family firm heterogeneity. Our results show that family power and culture have a positive influence on the ambidextrous orientation in family firms and that higher levels of OA lead to a better economic performance. Thus, our findings add to the development of explanatory factors of family firm performance (Melin & Nordqvist, 2007; Sharma, 2004; Westhead & Howorth, 2006). Our results also support the call of several scholars for organizations in general to aim to become more ambidextrous (He, 2004; Lubatkin et al., 2006; Simsek, 2009; Tushman & O'Reilly III, 1996). For managerial practice, our findings highlight the special role of family firms as well as the positive performance impact achieved by having an organization with a strong orientation toward ambidexterity.

BIBLIOGRAPHY

- Anderson, R. C., & Reeb, D. M. 2003. Founding-Family Ownership and Firm Performance: Evidence from the S&P 500. ***Journal of Finance***, 58(3): 1301-1328.
- Armstrong, J. S., & Overton, T. S. 1977. Estimating Nonresponse Bias in Mail Surveys. ***Journal of Marketing Research***, 14(3): 396-402.
- Astrachan, J. H., & Jaskiewicz, P. 2008. Emotional Returns and Emotional Costs in Privately Held Family Businesses: Advancing Traditional Business Valuation. ***Family Business Review***, 21(2): 139-149.
- Astrachan, J. H., Klein, S. B., & Smyrnios, K. X. 2002. The F-PEC Scale of Family Influence: A Proposal for Solving the Family Business Definition Problem. ***Family Business Review***, 15(1): 45-58.
- Backhaus, K., Erichson, B., Plinke, W., & Weiber, R. 2010. ***Multivariate Analysemethoden: Eine Anwendungsorientierte Einführung***. Berlin: Springer.
- Bartholomeusz, S., & Tanewski, G. A. 2006. The Relationship between Family Firms and Corporate Governance. ***Journal of Small Business Management***, 44(2): 245-267.
- Bartlett, C. A., & Ghoshal, S. 1990. Matrix Management: Not a Structure, a Frame of Mind. ***Harvard Business Review***, 68(4): 138-145.
- Bartlett, C. A., & Ghoshal, S. 1994. Changing the Role of Top Management: Beyond Strategy to Purpose. ***Harvard Business Review***, 72(6): 79-88.
- Benner, M. J., & Tushman, M. L. 2003. Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited. ***The Academy of Management Review***, 28(2): 238-256.
- Berekoven, L., Ecker, W., & Ellenrieder, P. 2009. ***Marktforschung: Methodische Grundlagen und Praktische Anwendung***. Wiesbaden: Gabler.
- Birkinshaw, J., & Gibson, C. 2004. Building Ambidexterity Into an Organization. ***MIT Sloan Management Review***, 45(4): 47-55.

- Burgelman, R. A. 1991. Intraorganizational Ecology of Strategy Making and Organizational Adaptation: Theory and Field Research. **Organization Science**, 2(3): 239-262.
- Burns, R. B. R. 2008. **Business Research Methods and Statistics Using SPSS**. London, England: Sage.
- Carney, M. 2005. Corporate Governance and Competitive Advantage in Family-Controlled Firms. **Entrepreneurship: Theory & Practice**, 29(3): 249-265.
- Casillas, J. C., Moreno, A. M., & Barbero, J. L. 2010. A Configurational Approach of the Relationship Between Entrepreneurial Orientation and Growth of Family Firms. **Family Business Review**, 23(1): 27-44.
- Chaganti, R., Chaganti, R., & Vijay, M. 1989. Profitable Small Business Strategies Under Different Types. **Entrepreneurship Theory and Practice**, 13(3): 21-37.
- Chrisman, J. J., Chua, J. H., & Litz, R. A. 2004. Comparing the Agency Costs of Family and Non-Family Firms: Conceptual Issues and Exploratory Evidence. **Entrepreneurship Theory and Practice**, 28(4): 335-354.
- Chrisman, J. J., Chua, J. H., Pearson, A. W., & Barnett, T. 2010. Family Involvement, Family Influence, and Family-Centered Non-Economic Goals in Small Firms. **Entrepreneurship Theory and Practice**, 36(2): 267-293.
- Chrisman, J. J., Chua, J. H., & Steier, L. P. 2003. An Introduction to Theories of Family Business. **Journal of Business Venturing**, 18(4): 441-448.
- Cliff, J. E., & Jennings, P. D. 2005. Commentary on the Multidimensional Degree of Family Influence Construct and the F-PEC Measurement Instrument. **Entrepreneurship Theory and Practice**, 29(3): 341-347.
- Craig, J., & Moores, K. 2005. Balanced Scorecards to Drive the Strategic Planning of Family Firms. **Family Business Review**, 18(2): 105-122.
- Cronbach, L. J. 1987. Construct Validity After Thirty Years. In R. L. Linn (Ed.), **Intelligence: Measurement, Theory, and Public Policy**: 147-171. Urbana: University of Illinois Preiss.
- Daily, C. M., & Dollinger, M. J. 1992. An Empirical Examination of Ownership Structure in Family and Professionally Managed Firms. **Family Business Review**, 5(2): 117-136.

- Davis, P. 1983. Realizing the Potential of the Family Business. ***Organizational Dynamics***, 12(1): 47-56.
- Denison, D., Lief, C., & Ward, J. L. 2004. Culture in Family-Owned Enterprises: Recognizing and Leveraging Unique Strengths. ***Family Business Review***, 17(1): 61-70.
- Dess, G. G., & Robinson Jr, R. B. 1984. Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately-held Firm and Conglomerate Business Unit. ***Strategic Management Journal***, 5(3): 265-273.
- Dielman, T. E. 1991. ***Applied Regression Analysis for Business and Economics***. Boston, MA: PWS-Kent.
- Draper, N. R., & Smith, H. 1998. ***Applied Regression Analysis***. New York, N.Y.: Wiley.
- Dyer, G. W. 2006. Examining the Family Effect on Firm Performance. ***Family Business Review***, 19(4): 253-273.
- Dyer, W. G. 1988. Culture and Continuity in Family Firms. ***Family Business Review***, 1(1): 37-50.
- Eisenhardt, K. M., & Martin, J. A. 2000. Dynamic Capabilities: What Are They? ***Strategic Management Journal***, 21(10/11): 1105-1122.
- Geringer, J. M., & Herbert, L. 1991. Measuring Performance of International Joint Ventures. ***Journal of International Business Studies*** 22(2): 249-264.
- Gibson, C. B., & Birkinshaw, J. 2004. The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. ***Academy of Management Journal***, 47(2): 209-226.
- Glick, W. H., Huber, G. P., Miller, C. C., Doty, D. H., & Sutcliffe, K. M. 1990. Studying Changes in Organizational design and Effectiveness: Retrospective Event Histories and Periodic Assessments. ***Organization Science***, 1(3): 293-312.
- Habbershon, T. G., Williams, M., & MacMillan, I. C. 2003. A Unified Systems Perspective of Family Firm Performance. ***Journal of Business Venturing***, 18(4): 451-451.

- Habbershon, T. G., & Williams, M. L. 1999. A Resource-Based Framework for Assessing the Strategic Advantages of Family Firms. ***Family Business Review***, 12(1): 1-25.
- Hamel, G. 2000. ***Leading the Revolution***. Boston, MA: Harvard Business School Press.
- He, Z.-L., Poh-Kam. 2004. Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. ***Organization Science***, 15(4): 481-494.
- Hill, S. A., & Birkinshaw, J. 2006. Ambidexterity in Corporate Venturing: Simultaneously Using Existing and Building New Capabilities, ***Academy of Management Proceedings***. Atlanta, GA.
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. 2003. A Model of Strategic Entrepreneurship: The Construct and its Dimensions. ***Journal of Management***, 29(6): 963-989.
- Kanuk, L., & Berenson, C. 1975. Mail Surveys and Response Rates: A Literature Review. ***Journal of Marketing Research (JMR)***, 12(4): 440-453.
- Kellermanns, F., & Eddleston, K. 2006. Corporate Entrepreneurship in Family Firms: A Family Perspective. ***Entrepreneurship Theory and Practice***, 30(6): 809-830.
- Kets de Vries, M. F. R. 1993. The Dynamics of Family Controlled Firms: The Good and the Bad New. ***Organizational Dynamics***, 21(3): 59-71.
- Klein, S. B., Astrachan, J. H., & Smyrnios, K. X. 2005. The F-PEC Scale of Family Influence: Construction, Validation, and Further Implication for Theory. ***Entrepreneurship: Theory & Practice***, 29(3): 321-339.
- Le Breton-Miller, I., & Miller, D. 2006. Why Do Some Family Businesses Out-Compete? Governance, Long-Term Orientations, and Sustainable Capability. ***Entrepreneurship Theory and Practice***, 30(6): 731-746.
- Lindow, C. M., Stubner, S., & Wulf, T. 2010. Strategic Fit Within Family Firms: The Role of Family Influence and the Effect on Performance. ***Journal of Family Business Strategy***, 1(3): 167-178.
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. 2006. Ambidexterity and Performance in Small- to Medium-Sized Firms: The Pivotal Role of Top

- Management Team Behavioral Integration. *Journal of Management*, 32(5): 646-646.
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. 2000. Enhancing Entrepreneurial Orientation Research: Operationalizing and Measuring a Key Strategic Decision Making Process. *Journal of Management*, 26(5): 1055-1085.
- Malhotra, N. K., Kim, S. S., & Patil, A. 2006. Common Method Variance in IS Research: A Comparison of Alternative Approaches and a Reanalysis of Past Research. *Management Science*, 52(12): 1865-1883.
- March, J. G. 1991. Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1): 71-87.
- McConaughy Daniel, L., Matthews, C. H., & Fialko, A. S. 2001. Founding Family Controlled Firms: Performance, Risk and Value. *Journal of Small Business Management*, 39(1): 31-49.
- Melin, L., & Nordqvist, M. 2007. The Reflexive Dynamics of Institutionalization: The Case of the Family Business. *Strategic Organization*, 5(3): 321-333.
- Miller, D., & Breton-Miller, I. L. 2005. *Managing For the Long Run: Lessons in Competitive Advantage from Great Family Businesses*. Cambridge, MA: Harvard Business School Press.
- Miller, D., Le Breton-Miller, I., Lester, R. H., & Cannella Jr, A. A. 2007. Are Family Firms Really Superior Performers? *Journal of Corporate Finance*, 13(5): 829-858.
- Morck, R., Shleifer, A., & Vishny, R. W. 1990. Do Managerial Objectives Drive Bad Acquisitions? *Journal of Finance*, 45(1): 31-48.
- Morck, R., & Yeung, B. 2003. Agency Problems in Large Family Business Groups. *Entrepreneurship Theory and Practice*, 27(4): 367-367.
- O'Reilly III, C. A., & Tushman, M. L. 2004. The Ambidextrous Organization. *Harvard Business Review*, 82(4): 74-81.
- Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K. Z., & Duncan, K. A. 2003. The Impact of the Family and the Business on Family Business Sustainability. *Journal of Business Venturing*, 18(5): 639-666.
- Oppenheim, A. N. 2000. *Questionnaire Design, Interviewing and Attitude Measurement: New Edition*. London: Continuum.

- Phan, P. H., & Hill, C. W. L. 1995. Organizational Restructuring and Economic Performance in Leveraged Buyouts: An Ex Post Study. ***Academy of Management Journal***, 38(3): 704-739.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. 2003. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. ***Journal of Applied Psychology***, 88(5): 879-903.
- Ramanujam, V., & Venkatraman, N. 1987. Planning and Performance: A New Look at an Old Question. ***Business Horizons***, 30(3): 19-25.
- Rutherford, M. W., Kuratko, D. F., & Holt, D. T. 2008. Examining the Link Between "Familianness" and Performance: Can the F-PEC Untangle the Family Business Theory Jungle? ***Entrepreneurship Theory and Practice***, 32(6): 1089-1109.
- Schulze, W. S., Lubatkin, M., H., Dino, R. N., & Buchholtz, A. K. 2001. Agency Relationships in Family Firms: Theory and Evidence. ***Organization Science***, 12(2): 99-116.
- Sharma, P. 2004. An Overview of the Field of Family Business Studies: Current Status and Directions for the Future. ***Family Business Review***, 17(1): 1-36.
- Sheremata, W. A. 2000. Centrifugal and Centripetal Forces in Radical New Product Development under Time Pressure. ***Academy of Management Review***, 25(2): 389-408.
- Simsek, Z. 2009. Organizational Ambidexterity: Towards a Multilevel Understanding. ***Journal of Management Studies***, 46(4): 597-624.
- Simsek, Z., Heavey, C., Veiga, J. F., & Souder, D. 2009. A Typology for Aligning Organizational Ambidexterity's Conceptualizations, Antecedents, and Outcomes. ***Journal of Management Studies***, 46(5): 864-894.
- Slater, S. F., & Narver, J. C. 1993. Product-Market Strategy and Performance. ***European Journal of Marketing***, 27(10): 33-52.
- Tabachnik, B., & Fidell, L. 2007. ***Using Multivariate Statistics***. Boston, MA: Pearson.

- Tagiuri, R., & Davis, J. 1996. Bivalent Attributes of the Family Firm. ***Family Business Review***, 9(2): 199-208.
- Tushman, M. L., & O'Reilly III, C. A. 1996. Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. ***California Management Review***, 38(4): 8-30.
- Ward, J. L. 1987. ***Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability, and Family Leadership***. San Francisco: Jossey-Bass.
- Ward, J. L. 1988. The Special Role of Strategic Planning for Family Businesses. ***Family Business Review***, 1(2): 105-117.
- Webb, J. W., Ketchen, D. J., & Ireland, R. D. 2010. Strategic Entrepreneurship Within Family-Controlled Firms: Opportunities and Challenges. ***Journal of Family Business Strategy***, 1(2): 67-77.
- Westhead, P. 2003. Company Performance and Objectives Reported by First and Multi-Generation Family Companies: A Research Note. ***Journal of Small Business and Enterprise Development***, 10(1): 93-105.
- Westhead, P., & Howorth, C. 2006. Ownership and Management Issues Associated With Family Firm Performance and Company Objectives. ***Family Business Review***, 19(4): 301-316.
- Whiteside, M. F., & Brown, F. H. 1991. Drawbacks of a Dual Systems Approach to Family Firms: Can We Expand Our Thinking. ***Family Business Review***, 4(4): 383-395.
- Yang, H., & Atuahene-Gima, K. 2007. Ambidexterity in Product Innovation Management: The Direct and Contingent Effects on Product Development Performance, ***Academy of Management Annual Meeting***. Philadelphia.
- Young, I. T. 1977. Proof Without Prejudice: Use of the Kolmogorov-Smirnov Test for the Analysis of Histograms From Flow Systems and Other Sources. ***Journal of Histochemistry and Cytochemistry***, 25(7): 935-941.
- Zahra, S. A., & Sharma, P. 2004. Family Business Research: A Strategic Reflection. ***Family Business Review***, 17(4): 331-346.

Zellweger, T. M., & Nason, R. S. 2008. A Stakeholder Perspective on Family Firm Performance. ***Family Business Review***, 21(3): 203-216.

V. THE IMPACT OF SUCCESSOR GENERATION DISCOUNT IN FAMILY FIRMS: EXAMINING NONLINEAR EFFECTS ON EXPLORATION AND EXPLOITATION

Paper D

Christian Brands and Torsten Wulf

Abstract

This paper contributes to the debate on generational involvement in family firms and its impact on new capability exploration and resource exploitation. Using the resource-based view we argue that first, a U-shaped relationship between generational involvement in family firms and the level of exploration and second, an inverse U-shaped relationship between generational involvement and the level of exploitation exists. We posit that as the generation managing family firms increases, new capability exploration decreases. Simultaneously existing resource exploitation rises up to a point where efficiency improvements no longer lead to performance advantages. An empirical investigation involving 125 family firms confirms our hypotheses.

Keywords

Exploration, exploitation, generational involvement, resource-based view, empirical investigation

1. Introduction

Family firm researchers regard the level to which family firms concentrate on exploitative and explorative behavior as an important driver of differences in family firm performance (Sharma & Salvato, 2011). Exploitation refers to the orientation of a firm towards efficiency in managing today's business demands through exploiting existing resources, while exploration describes a firm's ability to be adaptive to changes in the environment through discovering new opportunities (Duncan, 1976; Gibson & Birkinshaw, 2004; March, 1991; Tushman & O'Reilly III, 1996). Long-lived family firms have been found to be capable of simultaneously exploring new possibilities while exploiting old certainties (Bergfeld & Weber, 2011; March, 1991). At the same time family firm research has also shown, that family influence positively affects a family firm's level of both exploration and exploitation resulting in higher performance levels (Patel & Fiet, 2011; Stubner, Blarr, Brands, & Wulf, 2012).

However, research suggests that the performance of family firms does not remain constant over the life-cycle stages of the firm (Eddleston, Kellermanns, Floyd, Crittenden, & Crittenden, 2013). Several studies in family firm research thus distinguish between founding generation and successor generation-led family firms (Stewart & Hitt, 2011) when trying to explain performance differences of life-cycle stages. These studies have discovered lower performance effects for succeeding generations than for founders (Anderson & Reeb, 2003; Andres, 2008; Villalonga & Amit, 2006). This successor generation discount has been attributed to successive generations being more risk averse than founding generations (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Short, Jeremy, Payne, Brigham Keith, Lumpkin, & Broberg, 2009; van Essen, Carney, Gedajlovic, & Heugens, 2011) since passing control to later generations may weaken the entrepreneurial spirit and increase the willingness to divest resources (Kellermanns, 2005). Since a weakened entrepreneurial spirit results in less explorative behavior one can infer that as the family firm matures, the association between exploration and family firm performance becomes less evident (Gómez-

Mejía et al., 2007; Jones Carla, Makri, & Gomez-Mejia Luis, 2008; Stubner et al., 2012). At the same time, exploitative activities become more relevant as family firms mature with exploitative activities taking over as a performance driver (Sharma & Salvato, 2011). Transferring these results to the level of exploration and exploitation in family firms leads to the assumption that both vary as higher family generations are involved in a family firm's management (Ling & Kellermanns, 2010).

Based on the RBV this paper examines the effects of different management generations in family firms on the level of their explorative and exploitative behavior. Despite existing family firm literature showing a family firm's capability of simultaneously exploring new possibilities through entrepreneurial risk-taking based on unique capabilities while exploiting the valuable and rare nature of a firm's existing resources (Bergfeld & Weber, 2011; March, 1991), the specific generational context unique to family firms (Chirico, Ireland, & Sirmon, 2011; Eddleston et al., 2013) indicates that explorative and exploitative tendencies tend to vary over the life-cycle stages of family firms. According to the resource-based view (RBV) (Barney, 1991; Penrose, 1959; Wernerfelt, 1984), firms use two distinct mechanisms of rent creation for building valuable, rare, inimitable and organizational resources (Barney, 2007): Schumpeterian rent creation mechanisms based on explorative capabilities and Ricardian rent creation mechanisms based on the exploitation of resources (Lim, Celly, Morse, & Rowe, 2013; Makadok, 2001). Research on the resource based view has shown that firms tend to concentrate on one type of rent generation mechanism at a time (Lim et al., 2013).

Based on existing family firm literature examining exploration and exploitation (Patel & Fiet, 2011; Sharma & Salvato, 2011), the unique generational context present in family firms (Dawson, Sharma, Irving, Marcus, & Chirico, 2013; Eddleston et al., 2013) and drawing on the RBV (Barney, 1991; Lim et al., 2013; Makadok, 2001), we argue that the level of exploration and exploitation varies

depending on the generation managing the family firm. We suggest that due to their specific characteristics family firms are likely to apply Schumpeterian rent generation mechanisms while early generation managers lead the firm. Thus, they put an emphasis on explorative behavior at this stage. However, as generational involvement in a family firm's management increases the concentration on existing capabilities increases (Kellermanns, 2005) meaning efforts to create Schumpeterian rents based on explorative capabilities tend to diminish. At the same time, increasing generational involvement in family firms leads to an increase in conflict potential among different family members leading to efforts to protect the wealth of the family (Lubatkin, Schulze, Ling, & Dino, 2005), to an increased pressure on short-term performance (Casillas, Moreno, & Barbero, 2010) and thus to an exploitation of existing resources. Efforts to create Ricardian rents based on exploitation of resources consequently increase to a point where the firm has fully exploited existing resources (Patel & Fiet, 2011). Then, the family firm is forced to concentrate on explorative behavior again and – often – to enter into a phase of managing growth more like a nonfamily firm (Gersick, Davis, McCollom Hampton, & Lansberg, 1997). We thus hypothesize a U-shaped relationship between generational involvement in a family firms' management and the level of exploration and an inverse U-shaped relationship between the generational involvement in a family firms' management and the level of exploitation. An empirical analysis involving 125 private German family firms supports our theoretical argumentation.

As such, our paper makes three contributions to the family firm literature. Theoretically, we add to the ongoing debate regarding family firm heterogeneity by including generational involvement in a family firms' management as a variable explaining observed differences in family firm behavior. Additionally, this paper contributes to the debate on the effect of generational involvement on exploration and exploitation. Moreover, we carefully add knowledge to the resource based-view theory by proposing a non-linear relationship between the life-cycle stages a family firm goes through measured by the generation managing the firm and both Schumpeterian and Ricardian rent creation thus extending previous findings.

From a practical perspective our paper offers insights for family firm managers as to the importance of focusing on both Ricardian and Schumpeterian rent creation mechanisms during different generational stages of the firm's development.

This paper proceeds as follows: First we lay the theoretical foundation by reviewing the RBV and its relationship with resource exploration and exploitation. Second we review the importance of resource exploration and exploitation for family firms. Third, we introduce generational involvement in family firms as a variable explaining observed differences in both strategic orientations over different life-cycle stages. We conclude by discussing the contributions, limitations and both theoretical and practical implications of this paper.

2. The RBV and the importance of exploration and exploitation

According to the resource-based view, which defines a firm as a bundle of tangible and intangible resources (Barney, 1991) where organizational success and a sustainable competitive advantage depend on the extent that these resources are valuable, rare, inimitable and organized (Barney, 2007), firms focus on two core rent creation mechanisms to obtain a sustained competitive advantage: Schumpeterian rent creation based on explorative capabilities and Ricardian rent creation based on the exploitation of resources (Lim et al., 2013). Schumpeterian rents enable innovative processes and support firms in adapting to changing market environments in the long-run (Teece & Pisano, 1994). These Schumpeterian rents are predominantly created through explorative activities based on unique capabilities (Mahoney & Pandian, 1992). The RBV sees capabilities as firm specific with a relative emphasis on explorative activities strengthening a firm's inimitable and organized dimensions of the RBV. Consequently, firms that emphasize explorative activities predominantly create value on the basis of new product development capabilities and innovation through Schumpeterian rents (Lim et al., 2013).

In the context of this paper we define exploration of capabilities leading to Schumpeterian rents according to March's seminal paper as the creation of

distinctly different competencies through variation, risk taking, experimentation, discovery and innovation (March, 1991) with the aim of developing new technologies, products or markets building the base for a firm's growth and cash flow in the long run (Tushman & O'Reilly III, 1996). Exploration thus focusses on developing a new product or market capabilities (Voss & Voss, 2012) where product exploration essentially leads to a completely new product while market exploration targets new customers outside currently served markets. Following this line of argumentation, explorative capabilities support firms in creating Schumpeterian rents (Lim et al., 2013) leading to a sustained competitive advantage.

In contrast to Schumpeterian rents, Ricardian rents are obtained by possessing and using resources being a firm's financial, physical, individual, and organizational capital attributes (Amit & Schoemaker, 1993) for less than their marginal productivity when utilized in combination with other resources (Makadok, 2001). The key thus is resource picking where a firm has to come into possession of resources being able to generate economic rents by outsmarting the resource market through superior resource-picking skills (Makadok, 2001). Once these resources are possessed by a firm the Ricardian perspective argues that through exploiting the valuable and rare nature of the obtained resources firms ultimately create economic rents (Lim et al., 2013). Exploitation mechanisms applied by firms with a Ricardian focus include property rights, resource position barriers (Wernerfelt, 1984), immobility of valuable and rare resources (Barney, 1991) and imperfect factor markets (Barney, 1986). The creation of economic rents thus takes place through the selection of the right resources prior to their acquisition and their subsequent exploitation (Makadok, 2001).

For the purpose of this paper we define exploitation as activities capturing efficiency, production, selection and execution referring to incremental innovations of existing products, operations and competencies to meet the needs of existing customers to generate profits for the short run (March, 1991; Tushman & O'Reilly III, 1996). Exploitation activities thus refine and incrementally extend existing

products and markets to better meet existing and enhance satisfaction for current customers (Voss & Voss, 2012). The level of exploitation in firm is predominantly driven through its focus on Ricardian rent creation.

3. The importance of exploration and exploitation in family firms

Research on family firms has acknowledged that a systematic exploration of opportunities is vital to a family firm's long-term survival across generations since a family firm's success often depends on its ability to enter new geographic and product markets (Kellermanns & Eddleston, 2006; Ward, 1987). Consequently, a family firm's profitability and growth can be enhanced through explorative activities looking for new ways to make a family firm's products more distinct (Chrisman, Chua, & Zahra, 2003). Moreover, explorative activities and investments generate high growth (March, 1991) ensuring performance advantages and long-term survival. Allocating the right strategic resources such as a family firm's culture to explorative activities is particularly important to family firms since they do not have the slack resources required many non-family firms possess that enable them to have explorative failures (Zahra, Hayton, & Salvato, 2004).

Through their long-term nature family firms tend to have the right culture to pursue explorative activities creating Schumpeterian rents, which allow them to dedicate resources required for risk-taking and explorative activities (Zahra et al., 2004). Family firms are characterized through both family and non-family members having an exceptionally strong loyalty to the firm ensuring the family firm's long-term survival is secured through explorative activities (Burkart, Panunzi, & Shleifer, 2003). This strong loyalty is enhanced through a family firm's relative employment security facilitating explorative activities without the fear of being punished when failures occur (Webb, Ketchen, & Ireland, 2010). Moreover, family firms tend to adopt an informal approach to justice meaning a lack of conflict enables explorative activities through experimentation (Ensley & Pearson, 2005; Lubatkin, Simsek, Ling, & Veiga, 2006). One could thus assume that a pure focus on exploration ensures a family firm's long-term performance and ultimately survival. Nevertheless, while exploration is important to generate long term competencies

(Levinthal & March, 1993) a sole focus on exploration does not automatically lead to long term success since the constant renewal of products and markets can lead to a failure trap where a firm enters a cycle of search and is not rewarded for its change efforts (Volberda & Lewin, 2003). An overdependence on exploration can lead to a situation where firms abandon existing routines too quickly and thus do not fully benefit from scale economies (Chesbrough & Rosenbloom, 2002; March, 1991). Family firms should thus not overemphasize explorative activities, but also have to pursue exploitative activities.

Exploiting advantages of discovered opportunities through the accumulated stocks of tacit knowledge ensures short term performance advantages for family firms (Sharma & Salvato, 2011). Family firms require these constant returns from existing resources not only to operate their daily business, but also to finance future explorative activities (Levinthal & March, 1993). Returns from exploitative activities tend to be more certain than returns from exploration (March, 1991) which is why exploitative activities are also important to family firms. In a given set of markets and products opportunity exploitation is vital for family firms to achieve maximum returns (Sharma & Salvato, 2011). Family firms usually enjoy inimitable knowledge and experience advantages in areas close to existing operations (Patel & Fiet, 2011) meaning exploitation can help to advance opportunities in areas closely related to a family firm's existing operations.

Through their centralized decision-making structures (Pondy, 1969) and the family's strong influence on the delegation of power (Habbershon & Williams, 1999) family firms have the right structures to pursue exploitative activities creating Ricardian rents. Once family firms have established family wealth or a family legacy they tend to become more conservative (Morris, Williams, Allen, & Avila, 1997) focusing on exploitative activities. In particular, family firms that fear losing their inheritance tend to over emphasize short-term oriented, exploitative value creating activities (Zahra et al., 2004). Moreover, exploitation can be effective to smaller and family firms if pursued as an internally consistent strategy compared to a mixed strategy creating doubts as to which strategic initiatives an organization

is representative of (Ebben & Johnson, 2005). Family firms also have a tendency to sustain short-term competitiveness through simplifying routines increasing efficiency and thus exploitative activities (Levinthal & March, 1993; Webb et al., 2010). This tendency is further enhanced through tight family-control resulting in a homogeneous decision-making group managing the firm. Family-controlled, homogeneous decision-making groups thus tend to be adequately suited to pursue exploitative activities producing Ricardian rents (Webb et al., 2010).

It has generally been accepted that successful firms with a sustained competitive advantage use a combination of resource exploration leading to Schumpeterian rents and resource exploitation leading to Ricardian rents (Lubatkin et al., 2006; March, 1991). However, despite the merits of pursuing both exploration and exploitation simultaneously to create a sustained competitive advantage, research has acknowledged that mechanisms creating Ricardian and Schumpeterian rents vary over time (Lim et al., 2013). Regardless of most firms using a combination of both rent creation mechanism (Makadok, 2001) one of the two is usually more dominant in certain periods of time (Lim et al., 2013). Teece et al. (1994) argue that capabilities creating both Schumpeterian and Ricardian rents are built over time with one dominating over the other and vice versa depending on the age of the firm. In the early stages of a firm, where no competitive advantage yet exists, firms tend to focus on Schumpeterian rent creation through resource exploration. As the firm ages and Schumpeterian rents mature, firms tend to switch to exploiting the resources previously established through exploration thus creating Ricardian rents (Makadok, 2001). Research thus points towards a nonlinear development of both mechanisms over the life-cycle stages of a firm.

Given the importance of both exploration and exploitation in family firms and their unique generational context (Dawson et al., 2013; Eddleston et al., 2013), where clear knowledge differences and varying preferences for the strategic rent creation orientation can be attached to generation managing a family firm (Sciascia, Mazzola, & Chirico, 2013), one can assume a nonlinear development of both exploration and exploitation exists over different generational stages of the family

firm. Transferring this argumentation to the context of our paper means the focus on either Ricardian rent creation through exploitation or Schumpeterian rent creation through exploration depends on the life-cycle stage of the family firm. We address this controversial topic by focusing on an important source of life-cycle stage differences in family firms: generational involvement of family members in a family firm's management. Extending the commentary by Sharma and Salvato (2011) we argue that family generational involvement in management explains differences in Ricardian and Schumpeterian rent creation mechanisms and thus exploitation and exploration activities over the life-cycle stages of family firms. As such a nonlinear approach to the influence of generational involvement on exploration and exploitation in family firms is adopted.

4. The impact of generational involvement on exploration and exploitation in family firms

Research on family firms has acknowledged that different generations managing a family firm have different aspirations regarding a family firm's focus on growth or wealth preservation (Carlock & Janssens, 2007). First-generation or founder-led family firms typically build up a great amount of capabilities and rituals focusing on growth creating a critical size rather than wealth preservation since no resources and thus competitive advantage yet exists (Astrachan, Klein, & Smyrnios, 2002; Bammens, Voordeckers, & Van Gils, 2008; Klein, Astrachan, & Smyrnios, 2005). According to the RBV, capabilities are created through explorative activities such as risk taking, experimentation or discovery and innovation producing pay-offs in the form of Schumpeterian rents. The family's original fortune is thus usually created by a single founder (Jaffe & Lane, 2004) through explorative activities. It is the founder of the family firm who through his entrepreneurial mindset focused on identifying new opportunities through exploration lays the foundation of the family business (Kellermanns & Eddleston, 2006; Sirmon & Hitt, 2003). Consequently, the level of exploration in a family firm is expected to be high during the first generation.

However, it is often suggested that over time founders become more risk-averse or conservative resulting in an unwillingness to continue to invest in explorative activities (Kellermanns & Eddleston, 2006; Zahra et al., 2004). Family-firm founders over time sense the high risk of failure of their explorative activities endangering past success and their desire to build a lasting legacy for future generations (Morris et al., 1997). Moreover, this risk-averse behavior of family firm founders is further enhanced through findings that second and subsequent generations tend to contribute far less to a family firms' knowledge-development process compared to the first generation (Astrachan et al., 2002; Klein et al., 2005). As the number of generations actively managing a family firm increases, so does the level of task conflict among the family members involved in managing the firm (Bammens et al., 2008). Different generations tend to have different opinions as to whether a family firm should pursue a strategy focused on exploration or exploitation. With an increasing number of generations managing a family firm the number of active and passive family shareholders increases as well (Schulze, Lubatkin, & Dino, 2003; Vilaseca, 2002) with the active shareholders emphasizing long-term performance objectives and the passive shareholders favoring short-term payouts. Transferring this argument to our paper we can thus infer that active, first generation shareholders favor explorative activities creating long-term Schumpeterian rents over exploitative activities creating short-term Ricardian rents favored by successive generations. There is thus a tendency for the level of explorative activities to decrease as new generations enter a family firm's management.

This line of argumentation is further strengthened if one examines the partnership set-ups in family firms as they pass through generations. As family firms are transferred from the first to the second or third-and-beyond-generation family members move away from parental firms to sibling or cousin partnerships (Steier, 2001). These relationships are characterized by a lower level of intentional trust compared to founder-led family firms with later generation relatives attaching a greater importance to the prosperity their direct family nucleus rather than their extended-family (Schulze et al., 2003). Second or third-and-beyond-generation

family firms will thus shy away from investing in explorative activities favoring short-term exploitative initiatives that produce instant returns for their direct family nucleus rather than the extended family. Consequently, as the family firm matures and is transferred from the founder to the second generation, the level of exploration should decrease.

Needless to say that a decreased focus on exploration in the second generation leads to a decrease in long-term growth since the family firm loses its ability to enter new markets, revitalize existing operations and thus generate new growth (Ward, 1987). At this stage, many family firm managers realize that assets that previously ensured high and steady growth have reached or even overcome their full potential. In order to continue the founder's legacy many family firms will require double-digit compounded annual growth rates (Jaffe & Lane, 2004) which can only be achieved by reinventing the company (Kellermanns & Eddleston, 2006). However, due to the previously mentioned low levels of intentional trust among sibling partnerships managing second-generation family firms, agreeing on a common direction for change is difficult (Gersick et al., 1997). The willingness for change towards rejuvenating the family business through exploration is thus there, but lacks a unified direction (Eddleston et al., 2013; Zahra et al., 2004).

At this stage the family often looks for outside help in the form of family enterprise advisors or professional managers (Davis, Dibrell, Craig, & Green, 2013; Stewart & Hitt, 2011). One way for family firms to thus ensure its company continues to grow is to introduce professional managers having the appropriate formal training to coordinate different family members' demands to overcome the dilemma of not agreeing on a common future strategy for the family business. This introduction of professional managers in second-generation family firms at least partially infers a delegation of managerial authority (Stewart & Hitt, 2011), which usually results in a hand-over of control to the third-and-beyond-generation to enable a fresh start. These third-and-beyond-generation family firms can be described as cousin-consortiums where a family still owns a company but an increasing number of managers is recruited externally (Eddleston et al., 2013). However, Chrisman,

Chua and Steier (2011) argue that such as transition to professional management is only successful if the behavior of the family is also changed. In practice, this means that the family continues to own and manage the company, but leaves the management of incremental and progressive innovations, i.e. exploitation to professional managers whereas family managers take responsibility to identify more radical innovations, i.e. exploration (Sharma & Salvato, 2011). The level of exploration should thus continue to increase once a professional management has been introduced leaving enough space for family managers to innovate. Family firms that manage the transition to a professionally managed family firm thus enable a new start when Ricardian rents derived from existing products through exploitation are in decline and a stronger focus on Schumpeterian rent creating and thus exploration is needed. Consequently:

Hypothesis 1: A U-shaped relationship exists between generational involvement in management and the level of exploration in family firms.

As first generation family businesses are often based on innovative ideas stemming from explorative activities (Zahra et al., 2004) the level of exploitation in the first generational phase of a family business tends to be low. The family firm as it is about to be established has hardly any resources and thus no competitive advantage to be exploited yet. In the early stages family firms are entrepreneurial ventures with the founder looking for an opportunity to exploit through explorative activities (Eddleston et al., 2013). Once an opportunity has been identified the founder will exploit it through an efficient production, selection and execution to create Ricardian rents (Sharma & Salvato, 2011). From this line of reasoning one can thus infer that in the early stages level of exploitation in a family firm is low since the strategic focus lies on opportunity exploration. Once this opportunity has been successfully explored the level of exploitation continues as the firm matures.

The focus on exploitative activities further increases as family firms are transferred from the first to the second generation. Basco (2013) argues that over generations with the acceptance of new family members into a family firm's management the

firm will grow more slowly due to a general fear of losing control to other members of the management board. In addition, with the alteration in the composition of management family firms use more conservative strategies (Sciascia & Mazzola, 2008). Slower growth and conservative strategies are usually reflected in a focus on exploitative rather than explorative activities. This argument is supported by van Essen et al. (2011) who reason that successive generations in family firms are more risk averse. Succeeding generations are believed to preserve rather than create wealth as founders of family firms usually try to do (Stewart & Hitt, 2011). Increasing generational involvement in family firms leads to an increase in conflict potential among different family members leading to efforts to protect the wealth of the family (Lubatkin et al., 2005), to an increased pressure on short-term performance (Casillas et al., 2010) and thus to an exploitation of existing resources.

Moreover, over time a family firm's long-term development requiring explorative activities is often slowed down by quality and quantity of their internal, family human capital (Verbeke & Kano, 2010). The generations succeeding the founder of the family firm thus seem to be less qualified to focus on explorative activities stipulating a family firm's growth. Heirs are usually not as driven to explore new opportunities as founders are (Mehrotra, Morck, Shim, & Wiwattanakantang, 2011) leading to empirical evidence that founder-controlled firms are superior performers and firms controlled by later generation family members are inferior performers in comparison with firms run by professional managers (Chrisman, Chua, & Steier, 2011). Hence over time a family business that wants to sustain its portfolio of activities beyond the second generation has to ensure that it not only exploits existing resources to create short term Ricardian rents, but that it reinvests these returns to ensure a sustained wealth creation for future generations. At this stage family firms face a crucial decision on whether family members want to inject additional capital to grow the family firm through an exploration for radical innovations (Jaffe & Lane, 2004).

Multigenerational family firms which have at least been passed through two successive generations thus tend to push for the exploration of new business opportunities while acquiring the preceding generation's knowledge (Kellermanns & Eddleston, 2006). Since third-and-beyond-generation family firms tend to refocus on explorative activities through the creation of Schumpeterian rents we assume the level of exploitation to create Ricardian rents decreases. Formally expressed:

Hypothesis 2: *An inverted U-shaped relationship exists between generational involvement in management and the level of exploitation in family firms.*

5. Methodology

We followed recognized data collection measures of earlier studies on family firms and used mail-surveys to obtain our data (e.g. Eddleston et al., 2013; Zellweger, Kellermanns, Chrisman, & Chua, 2012) from 2,200 family firms in Germany. The mailing list was obtained by randomly drawing from the Hoppenstedt database, the most comprehensive SME database in Germany⁶. We use a SME database as the source for our mailing list since family firms dominate among SME's in Germany (see Klein, 2000). Following a key informant approach (e.g. Zellweger et al., 2012) we addressed a mailing accompanied by a personal letter to the CEO of the private family firm. The CEO was addressed to ensure a high degree of response quality since the head of the family firm is often the main person responsible for driving strategic initiatives. In accordance with prior studies in the family firm context we offered our respondents confidentiality to avoid socially desirable responding (Davis et al., 2013). In addition to addressing the questionnaire to the family CEO, the firms were asked to self-identify them as family firms. Having completed a two-wave mailing initiative, 209 respondents returned the questionnaire, resulting in 10.5% response rate. This rate is satisfactory for private family firms (e.g. Chrisman, Chua, & Litz, 2004; Zellweger et al., 2012). Nevertheless, several responses had to be deleted from the dataset due to

⁶ See www.hoppenstedt.de

missing values (Rutherford, Kuratko, & Holt, 2008) reducing the final sample to 125 private family firms. The private family firms in the final sample range in size from 6 to 6,600 with a mean of 600 and a standard deviation of 756.

Before addressing the empirical results we have to mention our efforts in addressing potential biases that could appear as part of our study design. First, we checked for non-response bias (Armstrong & Overton, 1977; Kanuk & Berenson, 1975; Oppenheim, 2000) using the Kolmogorov-Smirnov test (Young, 1977) and the non-parametric Mann-Whitney U-test to test for differences between early and late responses. No statistically significant response biases were found between early and late respondents. Second, we used Harman's single factor test (Malhotra, Kim, & Patil, 2006) testing for common methods bias in a single-method research design (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Our results showed no sign of being biased. Lastly, we also checked the internal reliability and consistency of the constructs used computing Cronbach's alpha (Cronbach, 1987). The results achieved were satisfactory.

5.1. Constructs

Dependent Variables. *Exploration* ($\alpha = .73$) and *exploitation* ($\alpha = .80$) were measured using a 12-item construct developed by Lubatkin, Simsek, Ling and Veiga (2006), with six items measuring explorative orientation and six items measuring exploitative orientation. The construct was measured on a 5-point Likert scale asking family firm CEOs to assess their firm's behavior over the past five years with responses ranging from one (strongly disagree) to five (strongly agree). Lubatkin et al.'s (2006) measure is seen as the most advanced construct assessing exploration and exploitation since it combines previous conceptualizations of both dimensions (Benner & Tushman, 2003; He, 2004) covering all major aspects. Choosing this construct ensures comparability of our findings with the majority of research employing this approach (Voss & Voss, 2012).

Independent Variable. *Generational involvement* was measured in accordance with other research (e.g. Kellermanns & Eddleston, 2006; Sciascia & Mazzola, 2008; Zahra et al., 2004) by asking the private family firm CEO to report the generation of the owner-family currently managing the family firm and thus being part of the family's top management team (TMT). Respondents were asked to note the highest generation of the owner-family managing the family firm (one, two, three etc.) while having the opportunity to indicate that no one from the owner-family is active in the family firm's management. In our sample, 33% of private family firms are managed by the first generation, 30% by the second generation and 37% by the third-or-beyond generation.

Controls. In accordance with prior research, we controlled for eight variables (age, size, number of family managers on the TMT, number of non-family managers on the TMT, past performance as well as three industries) that could influence both exploration and exploitation. *Family firm age* was controlled for since older firms are expected to undertake explorative initiatives less frequently due to inertia (e.g. Hannan & Freeman, 1989) while younger firms are expected to grow faster (e.g. Eddleston et al., 2013) thus neglecting exploitative efforts of obtained resources. It was measured by taking the number of years since the company was founded (Autio, Sapienza, & Almeida, 2000). Next we controlled for *family firm size* using the natural log of the number of employees (Zellweger et al., 2012) as larger firms tend to have more slack resources facilitating structural investments in explorative activities (March, 1991). Given the difficulties associated with increasing generational involvement could be related with the number of family members on the TMT (Sciascia et al., 2013; Zahra et al., 2004) we controlled for *number of family members on the TMT*. Since professional managers having no relationship with the owner family are considered to be more objective when it comes to balancing explorative and exploitative activities (Salvato, Chirico, & Sharma, 2010) we controlled for the number of *non-family members on the TMT*. Additionally, *past performance* ($\alpha = .76$) was included as a control variable since past firm success has a tendency to encourage explorative

activities that without slack resources would not be undertaken (Tasi, 2001). It was measured by asking respondents to rate their private family firm's financial performance relative to their main competitors, industry development and own goals for the three-year period 2006-2008 on a 5-point Likert scale ranging from one (considerably worse) to five (considerably better) (Hart & Banbury, 1994; Venkatraman & Ramanujam, 1987). Finally, as previous research on private family firms highlights that *industry* can affect the level of exploration and exploitation we included three industries (Manufacturing 49%, Retail 16% and Services 35%) as a control variable (Miller & Cardinal, 1994).

5.2. Results

Ordinary least squares (OLS) regression analysis was used to test our hypotheses with Table 1 presenting the descriptive statistics and correlations for the study's variables. In Model 1 and 4 we only included the controls variables. In Model 2, 3, 5 and 6 we tested for both our hypotheses. We proposed in hypothesis one that a U-shaped relationship exists between generational involvement in management and the level of exploration in family firms. In Model 2 exploration was regressed on generation with generation squared being added in Model 3. Despite generation not appearing to be significantly related to exploration in Model 2 (-.08; not significant), in Model 3 generation exposed a negative and significant coefficient (-.45; $p < .05$) while generation squared was positive and significant (.06; $p < .01$). The analytical results thus support our first hypothesis.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Exploration	3.33	0.53										
2. Exploitation	3.68	.40	0.23 **									
3. Firm Age	68.14	66.38	-.03	-.19 *								
4. Firm Size ^a	5.40	2.02	.35 ***	.26 **	.29 ***							
5. Family Managers on TMT	1.56	1.03	.02	.03	-.06	-.09						
6. Non-Family Managers on TMT	1.46	1.87	.19 *	.13	.01	.50 ***	-.29 ***					
7. Performance	1.64	.98	.04	-.01	.09	-.25 **	.08	-.18 *				
8. Manufacturing	.56	.63	.08	.07	.05	.01	-.19 *	-.02	-.05			
9. Retail	.13	.34	-.05	-.03	-.13	.01	.29 ***	-.01	.03	-.31 ***		
10. Services	.33	.47	-.01	.04	.08	-.02	-.13	.10	.13	-.51 ***	-.27 ***	
11. Generation	2.64	1.36	-.04	.24 **	.63 ***	.22 **	.07	.08	-.09	.01	.04	-.05

n = 125; *** p < .001; ** p < .01; * p < .05; ^t p < .10

SD, Standard Deviation; TMT, Top Management Team;

^a Variable is a natural logarithm

Table 4: Descriptive Statistics and Correlations

In hypothesis two we proposed an inverted U-shaped relationship exists between generational involvement in management and the level of exploitation in family firms. In Model 5 exploitation was regressed on generation. Generation appears to be slightly significantly related to exploitation (.06; $p < .10$). In Model 6 generation squared was added with generation now showing a positive and significant coefficient (.24; $p < .01$) and generation squared a negative and significant coefficient (-.16; $p < .01$). The analytical results thus also support our second hypothesis.

Variables	Model 1 Exploration	Model 2 Exploration	Model 3 Exploration
Controls			
1. Firm Age	.01	.01	-.01
2. Firm Size ^a	.12 ***	.15 ***	.15 ***
3. Family Managers on TMT	.06	.06	.16 *
4. Non-Family Managers on TMT	.01	-.01	-.02
5. Performance	.07	.05	.06
6. Manufacturing	.12	.13	.17
7. Retail	-.02	.05	.05
8. Services	.06	.11	.30
Main Effects			
Generation	-	-.08	-.45 *
Generation squared	-	-	.06 **
F	3.64 ***	3.51 ***	2.88 **
R ²	.17	.22	.20
Change in R ²		.04	.01
Adj. r ²	.13	.15	.13

n = 125; *** $p < .001$; ** $p < .01$; * $p < .05$; [†] $p < .10$

TMT, Top Management Team;

^a Variable is a natural logarithm

Table 5: Results of Regression on Exploration

Further, to check for the robustness of our nonlinear relationship between generational involvement and exploration as well as exploitation in family firms we draw on Lind and Mehlum (2010) to assess the validity of a U-shaped relationship between generational involvement and exploration and an inverted U-shaped relationship between generational involvement and exploitation (see Karim, 2009;

Wales, Parida, & Patel, 2013). First we test the joint significance of the direct and squared terms of generation on exploration followed by Lind and Mehlum's (2010) test for a U-shaped relationship (H_1 : The relationship is U-shaped). The U-shaped relationship appears to be significant ($p < .01$) with an extreme point at the third generation (generation: 3.01). The same procedure was performed to test the joint significance of the direct and squared terms of generation on exploitation followed by a test for an inverted U-shaped relationship (H_1 : The relationship is inverse U-shaped). The inverse U-shaped relationship is observed to be significant ($p < .01$) with an extreme point just after the second generation (generation: 2.10). Together, the results of Model 2, 3, 5 and 6 provide consistent support for our hypotheses indicating a U-shaped relationship between generational involvement in management and exploration in family firms and an inverted U-shaped relationship between generational involvement in management and exploitation in family firms.

Variables	Model 4 Exploitation	Model 5 Exploitation	Model 6 Exploitation
Controls			
1. Firm Age	-.01 ^t	-.01	.01
2. Firm Size ^a	.05 *	.05 *	.08 ***
3. Family Managers on TMT	.04	.05	.08 *
4. Non-Family Managers on TMT	.01	.02	.02
5. Performance	.01	.01	.01
6. Manufacturing	.14 ^t	.13	.10
7. Retail	.03	-.01	-.75
8. Services	.14	.09	.18
Main Effects			
Generation	-	.06 ^t	.24 **
Generation squared	-	-	-.16 **
F	2.48 **	2.26 **	1.28 **
R ²	.13	.18	.19
Change in R ²		.06	.01
Adj. r ²	.08	0.12	.12

n = 125; *** p < .001; ** p < .01; * p < .05; ^t p < .10

TMT, Top Management Team;

^a Variable is a natural logarithm

Table 6: Results of Regression on Exploitation

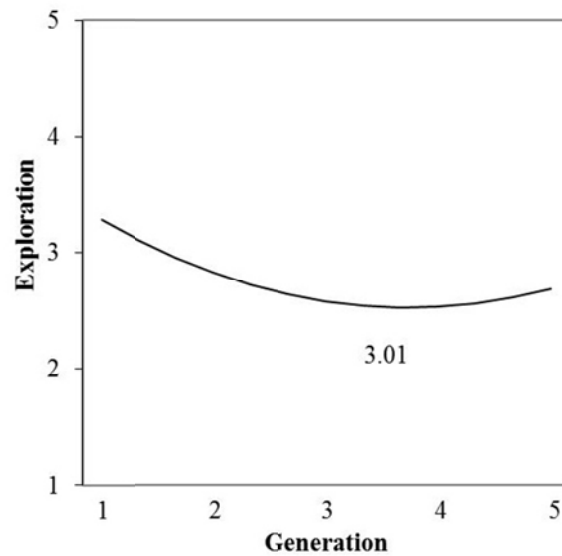


Figure 41: Generational Involvement and Exploration

In order to facilitate the interpretation of our results the interactions between generational involvement in private family firms and exploration were plotted in Figure 41 as well as exploitation in Figure 42 (Cohen, Cohen, West, & Aiken, 2003). Figure 41 (hypothesis 1) shows the U-shaped relationship between generational involvement in management and exploration in private family firms. As expected, the level of exploration is highest in the first generation continuously decreasing until the third generation takes over the management of the private family firm. Beyond the third generation the level of exploration continues to increase but never regains the innovative and thus explorative edge of the first generation (Gómez-Mejía et al., 2007; Short Jeremy et al., 2009; van Essen et al., 2011). In line with our predictions Figure 42 (hypothesis 2) depicts the increasing focus on exploitative activities in private family firms up to the second generation. Once third-and-beyond generations take over the management the exploitative focus decreases significantly. The implications of these results are discussed in the next section.

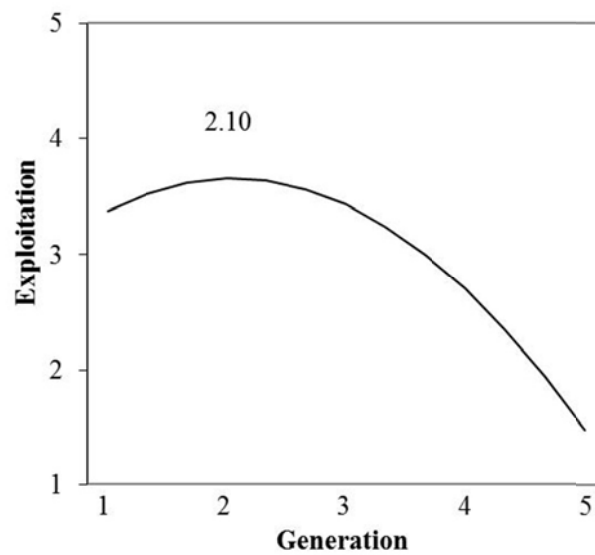


Figure 42: Generational Involvement and Exploitation

6. Discussion

Generational transition and generational involvement in family firms add an additional layer of complexity not found in other firm contexts. Despite this additional complexity continuing a firm as a family firm making it a dynasty often remains the prime goal of any family enterprise. Yet the reality draws a different picture with only one-third of family firms making a successful transition to the second generation and a mere ten percent continuing to the third generation (Birley, 1986; Neubauer & Lank, 1998). Understanding generational differences among family firms is thus vital to ensure fewer family firms fail during generational transitions.

In our paper we focus on a particular area of family firm research where generational differences appear to have a significant impact: opportunity exploration creating Schumpeterian rents securing long-term growth and opportunity exploitation creating Ricardian rents through an efficient use of resources. Over time both are seen as an important driver of differences in family firm performance (Sharma & Salvato, 2011). In our paper, we take generational involvement in a family firm's management as a proxy for the family firm's different life cycle stages. Adopting a non-linear approach to highlight the variations in

success associated with opportunity exploration and exploitation over time, our results show that during different generational stages family firms experience different levels of both exploration and exploitation. Specifically, a U-shaped relationship between generational involvement in a family firm's management and the level of exploration is confirmed through our empirical results. The lowest level of exploration is attained when the third generation manages the family firm. At this stage family firms are often in the middle of a transition process towards a consortium of cousins ownership where an extended family owns a family and employs some family members to manage the firm (Eddleston et al., 2013; Gersick et al., 1997; Lubatkin et al., 2005). In these cousin consortiums family firms employ an increasing proportion of non-family managers pushing the family to become active shareholders rather than active managers. Altruistic attributes, such as the prime goal turning the family enterprise into a dynasty through the exploration for radical innovations that were strongly present in the previous generations seem to have been lost during the generational transition process (Lubatkin et al., 2005). With this loss and the introduction of professional managers a stronger emphasis is placed on short-term performance and dividend payments (Schulze et al., 2003) leading to a continuous decrease in exploration.

However, since our empirical findings confirm a U-shaped relationship the level of exploration continues to increase again beyond the third generation managing the family firm. We attribute this effect to Sharma and Salvato's (2011) findings that dynastic family firms have found a seamless balance between the controlling family and nonfamily professionals. In this setting, radical innovations developed through an exploration of resources are the family's responsibility whereas nonfamily professional managers concentrate on operational matters exploiting existing resources. When the level of exploration is at its lowest during the third family generation managing the firm, the family is still in a strong transition process trying to find a balance between maintaining control of the business whilst also managing it. Those family firms that succeed this transition process experience higher levels of exploration and thus long-term growth through the creation of Schumpeterian rents.

Furthermore, our empirical results confirm an inverted U-shape relationship between generational involvement in a family firm's management and the level of exploitation. The highest level of exploitation is attained when the second family generation manages the family firm. At this stage family firms often deal with challenges arising from the foundations of the family firm laid by the founder. Over time, family firm founders tend to become afraid of losing their wealth reflected in a higher risk-aversion and an emphasis on exploitation rather than exploration of resources (Casillas et al., 2010; Eddleston et al., 2013). The second-generation managing the firm tends to adopt the strategic initiatives and goals laid by the founder thus continuing to focus on the exploitation of resources. Moreover, second generation family firms tend to suffer from conflicts among siblings taking over the management of the firm struggling to find a common strategy and balance between continuing the path set by the founder and exploring new opportunities (Lubatkin et al., 2005).

Nevertheless, since our findings confirm an inverted U-shape relationship the level of exploitation decreases when the management of the family business is transitioned from the second to the third-and-beyond-generation. At this stage the generation managing the family firm seems to have found a solution for their initial conflicts in the form of introducing external, professional managers that take over the operational management of the family business whilst family members active in the management focus on explorative activities (Eddleston et al., 2013). The Overall level of exploitation should thus decrease as the family place an increased emphasis on explorative initiatives creating long-term growth through Schumpeterian rents.

Finally, our results offer interesting insights why a mere ten percent of first generation family businesses successfully transition to the third generation: While the level of exploration and thus the creation of long-term growth through Schumpeterian rents is at its lowest in the third generation managing the family business, the level of exploitation and thus the creation of short-term profits

through Ricardian rents is at its peak in the second generation managing the family business. The crucial transition process in a family firm's management thus seems to occur during the second and third generation, at least in terms of the family firms' focus on exploration and exploitation. Yet, as exploration and exploitation are seen as an important driver of differences in family firm performance (Sharma & Salvato, 2011) our results suggest that in imbalance between both occurs between the second and third family generation managing the family firm, which might explain why so few family firms succeed in the transition process.

6.1. Implications for theory and practice

Three important contributions emerge from our paper. First our research extends the ongoing debate regarding family firm heterogeneity by including generational involvement in a family firm's management as a variable explaining observed difference in family firm behavior. In doing so we answer Sharma and Salvato's (2011) to further refine and test how family firms exploit and explore new opportunities over different life cycle stages. We show how generational involvement in family firms influences a family firms' focus on either exploration or exploitation over time suggesting that during different life cycle stages both orientations receive a varying degree of attention. Moreover, existing research assumes that those family firms continuously combining exploration with exploitation will perform better than other ones (e.g. Patel & Fiet, 2011). Our findings suggest that a simultaneous combination of both is difficult to achieve for family firms over life-cycle stages as generations place a different importance on either exploration or exploitation. However, those family firms succeeding in achieving both simultaneously are expected to achieve superior performance results over the long term (Stubner et al., 2012; Webb et al., 2010).

Second, we add some knowledge to the RBV literature by proposing a non-linear relationship between Schumpeterian rent creation through exploration and Ricardian rent creation through exploitation. Previous findings suggest that while most firms use a combination of both exploration and exploitation as rent creation

mechanisms (Makadok, 2001), one or the other dominates in certain context (Lim et al., 2013). While previous research has mostly focused on environmental or industry differences to describe these differences, we add a life-cycle stage perspective to the debate by introducing generational involvement in family firms as an explanatory variable explaining observed differences in rent creation mechanisms through exploration and exploitation. Our findings thus confirm that both rent creation mechanisms occur cyclically in a family firm context depending on the generation managing the firm.

Third our work offers insights to family firm managers that both rent creation mechanisms are important during different generational stages of the family firm's development. Both extremes require a careful balance depending on which generation currently manages the family firm to be successful in the long run.

6.2. Study limitations and future research

As with any paper there are limitations to the presented research offering several routes for future investigations. First, we take a family firm's life cycle as a static contingent on a specific family generation managing the family firm. However, different life cycle stages of a family firm can occur within a single family generation managing the family business. Future studies should therefore account for more fine-grained life-cycle stages of a family firm in a multi-level research design. Second, we do not account for a family firm founder's influence on a firm's strategy and goals often having a wide reaching impact on the future development of the firm well into the second or third-and-beyond-generation managing the firm. A family firm founder's preference for either Schumpeterian rent creation through exploration or Ricardian rent creation through exploitation can have a significant impact on the emphasis placed on either mechanism by future generations managing the firm. Future research should thus incorporate the initial strategic direction set for the business by the founder. Third, our paper is based on cross-sectional data with answers provided by one key informant per company. Although we found no indication of common method or respondent bias

(Phillips, 1981; Podsakoff et al., 2003), future studies should aim to include multiple key informants and a longitudinal research design. Fourth our data were collected amongst German family firms only. Given the cultural differences occurring both in terms of generational involvement in family firms and different rent creation mechanisms across different cultures (Chrisman et al., 2011; Tushman & O'Reilly III, 1996), our results may not be generalizable to family firms outside Germany. A multi-country study examining the effects of cultural influences on both exploration and exploitation as well as generational involvement in family firms is thus desirable. Finally, including third-and-beyond generation firms in our paper can be seen as the outcome of a selection bias since their survival indicates a successful balance between exploration and exploitation creating superior long-term performance returns. This limitation requires a more detailed analysis at what stage in their development family firms achieve a strong balance between both extremes and whether this balance actually produces superior return compared to a strategy focused on either exploitation or exploration.

6.3. Conclusion

The current paper examined the nonlinear effects of generational involvement in family firm management and its impact on the level of exploration and exploitation in privately held family firms. The unique insight of the research is that generational involvement in family firm management leads to a U-shape relationship in explorative activities reaching its lowest point during the third generation and an inverse U-shape relationship in exploitative activities reaching its peak in the second generation managing the family firm. As such generational involvement in family firm management uniquely affects the level of exploration and exploitation in family firms. Our paper offers distinct insights for researchers suggesting that family firms apply different rent creation mechanisms during different generational management stages hinting towards the difficulty of simultaneously pursuing an exploration for new opportunities and exploitation of existing resources in family firms.

BIBLIOGRAPHY

- Amit, R., & Schoemaker, P. 1993. Strategic Assets and Organizational Rent. ***Strategic Management Journal***, 14(1): 33-46.
- Anderson, R. C., & Reeb, D. M. 2003. Founding-Family Ownership and Firm Performance: Evidence from the S&P 500. ***Journal of Finance***, 58(3): 1301-1328.
- Andres, C. 2008. Large Shareholders and Firm Performance: An Empirical Examination of Founding-Family Ownership. ***Journal of Corporate Finance***, 14(4): 431-445.
- Armstrong, J. S., & Overton, T. S. 1977. Estimating Nonresponse Bias in Mail Surveys. ***Journal of Marketing Research***, 14(3): 396-402.
- Astrachan, J. H., Klein, S. B., & Smyrnios, K. X. 2002. The F-PEC Scale of Family Influence: A Proposal for Solving the Family Business Definition Problem. ***Family Business Review***, 15(1): 45-58.
- Autio, E., Sapienza, H. J., & Almeida, J. G. 2000. Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth. ***Academy of Management Journal***, 43(5): 909-924.
- Bammens, Y., Voordeckers, W., & Van Gils, A. 2008. Boards of Directors in Family Firms: A Generational Perspective. ***Small Business Economics***, 31(2): 163-180.
- Barney, J. 1986. Strategic Factor Markets: Expectations, Luck, and Business Strategy. ***Management Science***, 32(10): 1231-1241.
- Barney, J. 1991. Firm Resources and Sustained Competitive Advantage. ***Journal of Management***, 17(1): 99-120.
- Barney, J. 2007. ***Gaining and Sustaining Competitive Advantage*** (3rd ed.). Reading, MA: Addison-Wesley.
- Basco, R. 2013. The Family's Effect on Family Firm Performance: A Model Testing the Demographic and Essence Approaches. ***Journal of Family Business Strategy***, 4(1): 42-66.
- Benner, M. J., & Tushman, M. L. 2003. Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited. ***The Academy of Management Review***, 28(2): 238-256.
- Bergfeld, M. M. H., & Weber, F. M. 2011. Dynasties of Innovation: Highly Performing German Family Firms and the Owners' Role for Innovation.

- International Journal of Entrepreneurship and Innovation Management***, 13(1): 80-94.
- Birley, S. 1986. Succession in the Family Firm: The Inheritors' View. ***Journal of Small Business Management***, 24(3): 36-43.
- Burkart, M., Panunzi, F., & Shleifer, A. 2003. Family firms. ***Journal of Finance***, 58(5): 2167-2202.
- Carlock, R., & Janssens, B. 2007. Dangers That Can destroy the Transfer of Family Wealth in Asia. ***MillionaireAsia***, February: 74-75.
- Casillas, J. C., Moreno, A. M., & Barbero, J. L. 2010. A Configurational Approach of the Relationship Between Entrepreneurial Orientation and Growth of Family Firms. ***Family Business Review***, 23(1): 27-44.
- Chesbrough, H., & Rosenbloom, R. S. 2002. The Role of the Business Model in Capturing Value From Innovation: Evidence From Xerox Corporation's Technology Spin-off Companies. ***Industrial and Corporate Change***, 11(3): 529-555.
- Chirico, F., Ireland, R. D., & Sirmon, D. G. 2011. Franchising and the Family Firm: Creating Unique Sources of Advantage Through "Familianness"*. ***Entrepreneurship Theory and Practice***, 35(3): 483-501.
- Chrisman, J. J., Chua, J. H., & Litz, R. A. 2004. Comparing the Agency Costs of Family and Non-Family Firms: Conceptual Issues and Exploratory Evidence. ***Entrepreneurship Theory and Practice***, 28(4): 335-354.
- Chrisman, J. J., Chua, J. H., & Steier, L. P. 2011. Resilience of Family Firms: An Introduction. ***Entrepreneurship Theory and Practice***, 35(6): 1107-1119.
- Chrisman, J. J., Chua, J. H., & Zahra, S. A. 2003. Creating Wealth in Family Firms through Managing Resources: Comments and Extensions. ***Entrepreneurship Theory and Practice***, 27(4): 359-365.
- Cohen, J., Cohen, P., West, S., & Aiken, L. 2003. ***Applied multiple regression/correlation analysis for the behavioral sciences*** (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cronbach, L. J. 1987. Construct Validity After Thirty Years. In R. L. Linn (Ed.), ***Intelligence: Measurement, Theory, and Public Policy***: 147-171. Urbana: University of Illinois Press.
- Davis, W. D., Dibrell, C., Craig, J. B., & Green, J. 2013. The Effects of Goal Orientation and Client Feedback on the Adaptive Behaviors of Family Enterprise Advisors. ***Family Business Review***, 26(3): 215-234.

- Dawson, A., Sharma, P., Irving, P. G., Marcus, J., & Chirico, F. 2013. Predictors of Later-Generation Family Members' Commitment to Family Enterprises. *Entrepreneurship Theory and Practice*, Early Online View.
- Duncan, R. B. (Ed.). 1976. *The Ambidextrous Organization: Designing Dual Structures for Innovation*. (Vol. 1). New York: North-Holland.
- Ebben, J., & Johnson, A. 2005. Efficiency, Flexibility, or Both? Evidence Linking Strategy to Performance in Small Firms. *Strategic Management Journal*, 26(13): 1249-1259.
- Eddleston, K. A., Kellermanns, F. W., Floyd, S. W., Crittenden, V. L., & Crittenden, W. F. 2013. Planning for Growth: Life Stage Differences in Family Firms. *Entrepreneurship Theory and Practice*, Early Online View.
- Ensley, M., & Pearson, A. 2005. An Exploratory Comparison of the Behavior Dynamics of Top Management Teams in Family and Non-Family New Ventures: Cohesion, Conflict, Potency, and Consensus. *Entrepreneurship Theory and Practice*, 29(3): 267-284.
- Gersick, K. E., Davis, J. A., McCollom Hampton, M., & Lansberg, I. 1997. *Generation to Generation - Life Cycles of the Family Business*. Boston, MA: Harvard Business School Press.
- Gibson, C. B., & Birkinshaw, J. 2004. The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. *Academy of Management Journal*, 47(2): 209-226.
- Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J. L., & Moyano-Fuentes, J. 2007. Socioemotional Wealth and Business Risks in Family-controlled Firms: Evidence from Spanish Olive Oil Mills. *Administrative Science Quarterly*, 52(1): 106-137.
- Habbershon, T. G., & Williams, M. L. 1999. A Resource-Based Framework for Assessing the Strategic Advantages of Family Firms. *Family Business Review*, 12(1): 1-25.
- Hannan, M. T., & Freeman, J. 1989. *Organizational Ecology*. Cambridge, MA: Harvard University Press.
- Hart, S., & Banbury, C. 1994. How Strategy-Making Processes Can Make a Difference. *Strategic Management Journal*, 15(4): 251-269.
- He, Z.-L., Poh-Kam. 2004. Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science*, 15(4): 481-494.

- Jaffe, D. T., & Lane, S. H. 2004. Sustaining a Family Dynasty: Key Issues Facing Complex Multigenerational Business- and Investment-Owning Families. ***Family Business Review***, 17(1): 81-98.
- Jones Carla, D., Makri, M., & Gomez-Mejia Luis, R. 2008. Affiliate Directors and Perceived Risk Bearing in Publicly Traded, Family-Controlled Firms: The Case of Diversification. ***Entrepreneurship Theory and Practice***, 32(6): 1007-1026.
- Kanuk, L., & Berenson, C. 1975. Mail Surveys and Response Rates: A Literature Review. ***Journal of Marketing Research (JMR)***, 12(4): 440-453.
- Karim, S. 2009. Business Unit Reorganization and Innovation in New Product Markets. ***Management Science***, 55(7): 1237-1254.
- Kellermanns, F., & Eddleston, K. 2006. Corporate Entrepreneurship in Family Firms: A Family Perspective. ***Entrepreneurship Theory and Practice***, 30(6): 809-830.
- Kellermanns, F. W. 2005. Family Firm Resource Management: Commentary and Extensions. ***Entrepreneurship: Theory & Practice***, 29(3): 313-319.
- Klein, S. 2000. Family Businesses in Germany: Significance and Structure. ***Family Business Review***, 13(3): 157-181.
- Klein, S. B., Astrachan, J. H., & Smyrnios, K. X. 2005. The F-PEC Scale of Family Influence: Construction, Validation, and Further Implication for Theory. ***Entrepreneurship: Theory & Practice***, 29(3): 321-339.
- Levinthal, D. A., & March, J. G. 1993. The Myopia of Learning. ***Strategic Management Journal***, 14(S2): 95-112.
- Lim, D. S. K., Celly, N., Morse, E., & Rowe, W. G. 2013. Rethinking the Effectiveness of Asset and Cost Retrenchement: The Contingency Effects of a Firm's Rent Creation Mechanism. ***Strategic Management Journal***, 34(42-61).
- Lind, J. T., & Mehlum, H. 2010. With or Without U? The Appropriate Test for a U-Shaped Relationship. ***Oxford Bulletin of Economics and Statistics***, 72(1): 109-118.
- Ling, Y., & Kellermanns, F. W. 2010. The Effects of Family Firm Specific Diversity: The Moderating Role of Information Exchange Frequency. ***Journal of Management Studies***, 47(2): 332-344.
- Lubatkin, M. H., Schulze, W. S., Ling, Y., & Dino, R. N. 2005. The Effects of Parental Altruism on the Governance of Family-Managed Firms. ***Journal of Organizational Behavior***, 26(3): 313-330.

- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. 2006. Ambidexterity and Performance in Small- to Medium-Sized Firms: The Pivotal Role of Top Management Team Behavioral Integration. *Journal of Management*, 32(5): 646-646.
- Mahoney, J. T., & Pandian, J. 1992. The Resource-Based View Within the Conversation of Strategic Management. *Strategic Management Journal*, 13(5): 363-380.
- Makadok, R. 2001. Toward a Synthesis of the Resource-Based and Dynamic-Capability Views of Rent Creation. *Strategic Management Journal*, 22(5): 387-401.
- Malhotra, N. K., Kim, S. S., & Patil, A. 2006. Common Method Variance in IS Research: A Comparison of Alternative Approaches and a Reanalysis of Past Research. *Management Science*, 52(12): 1865-1883.
- March, J. G. 1991. Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1): 71-87.
- Mehrotra, V., Morck, R., Shim, J., & Wiwattanakantang, Y. 2011. Must Love Kill the Family Firm? Some Exploratory Evidence. *Entrepreneurship: Theory & Practice*, 35(6): 1121-1148.
- Miller, C. C., & Cardinal, L. B. 1994. Strategic Planning and Firm Performance: A Synthesis of More Than Two Decades of Research. *Academy of Management Journal*, 37(6): 1649-1665.
- Morris, M., Williams, R., Allen, J., & Avila, R. 1997. Correlates of Success in Family Business Transitions. *Journal of Business Venturing*, 12(5): 385-401.
- Neubauer, F., & Lank, A. G. 1998. *The Family Business: Its Governance for Sustainability*. London: MacMillan.
- Oppenheim, A. N. 2000. *Questionnaire Design, Interviewing and Attitude Measurement: New Edition*. London: Continuum.
- Patel, P. C., & Fiet, J. O. 2011. Knowledge Combination and the Potential Advantages of Family Firms in Searching for Opportunities. *Entrepreneurship: Theory & Practice*, 35(6): 1179-1197.
- Penrose, E. 1959. *The Theory of the Growth of the Firm*. Oxford: Oxford University Press.
- Phillips, L. W. 1981. Assessing Measurement Error in Key Informant Reports: A Methodological Note on Organizational Analysis in Marketing. *Journal of Marketing Research*, 18(4): 395-415.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. 2003. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- Pondy, L. R. 1969. Effects of Size, Complexity, and Ownership on Administrative Intensity. *Administrative Science Quarterly*, 14(1): 47-60.
- Rutherford, M. W., Kuratko, D. F., & Holt, D. T. 2008. Examining the Link Between "Familianness" and Performance: Can the F-PEC Untangle the Family Business Theory Jungle? *Entrepreneurship Theory and Practice*, 32(6): 1089-1109.
- Salvato, C., Chirico, F., & Sharma, P. 2010. A farewell to the Business: Championing Exit and Continuity in Entrepreneurial Family Firms. *Entrepreneurship and Regional Development*, 22(3-4): 1-28.
- Schulze, W. S., Lubatkin, M. H., & Dino, R. N. 2003. Exploring the Agency Consequences of Ownership Dispersion Among the Directors of Private Family Firms *Academy of Management Journal*, 46(2): 179-194.
- Sciascia, S., & Mazzola, P. 2008. Family Involvement in Ownership and Management: Exploring Nonlinear Effects on Performance. *Family Business Review*, 21(4): 331-345.
- Sciascia, S., Mazzola, P., & Chirico, F. 2013. Generational Involvement in the Top Management Team of Family Firms: Exploring Nonlinear Effects on Entrepreneurial Orientation. *Entrepreneurship Theory and Practice*, 37(1): 69-85.
- Sharma, P., & Salvato, C. 2011. Commentary: Exploiting and Exploring New Opportunities Over Life Cycle Stages of Family Firms. *Entrepreneurship: Theory & Practice*, 35(6): 1199-1205.
- Short, Jeremy, C., Payne, G. T., Brigham, Keith, H., Lumpkin, G. T., & Broberg, J. C. 2009. Family Firms and Entrepreneurial Orientation in Publicly Traded Firms: A Comparative Analysis of the S&P 500. *Family Business Review*, 22(1): 9-24.
- Sirmon, D. G., & Hitt, M. A. 2003. Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms. *Entrepreneurship Theory and Practice*, 27(4): 339-358.
- Steier, L. 2001. Family Firms, Plural Forms of Governance, and the Evolving Role of Trust. *Family Business Review*, 14(4): 353-367.

- Stewart, A., & Hitt, M. A. 2011. Why Can't a Family Business be More Like a Nonfamily Business? Modes of Professionalisation in Family Firms. ***Family Business Review***, 20(10): 1-29.
- Stubner, S., Blarr, H. W., Brands, C., & Wulf, T. 2012. Organizational Ambidexterity and Family Firm Performance. ***Journal of Small Business and Entrepreneurship***, 25(2): 217-229.
- Tasi, W. 2001. Knowledge Transfer in Intraorganizational Networks: Effects of Network Position and Absorptive Capacity on Business Unit Innovation and Performance. ***Academy of Management Journal***, 44(5): 996-1004.
- Teece, D. J., & Pisano, G. 1994. The Dynamic Capabilities of Firms: An Introduction. ***Industrial and Corporate Change***, 3(3): 537-556.
- Tushman, M. L., & O'Reilly III, C. A. 1996. Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. ***California Management Review***, 38(4): 8-30.
- van Essen, M., Carney, M., Gedajlovic, E., & Heugens, P. P. 2011. Do U.S. Publicly-Listed Family Firms Differ? Does it Matter? A Meta-Analysis, ***10th Annual Family Businesses Research Conference***. Lancaster, England.
- Venkatraman, N., & Ramanujam, V. 1987. Measurement of Business Economic Performance: An Examination of Method Convergence. ***Journal of Management***, 13(1): 109-122.
- Verbeke, A., & Kano, L. 2010. Transaction Cost Economics (TCE) and the Family Firm. ***Entrepreneurship: Theory & Practice***, 34(6): 1173-1182.
- Vilaseca, A. 2002. The Shareholder Role in the Family Business: Conflict of Interests and Objectives Between Nonemployed Shareholders and Top Management Team. ***Family Business Review***, 15(4): 299-320.
- Villalonga, B., & Amit, R. 2006. How Do Family Ownership, Control and Management Affect Firm Value. ***Journal of Financial Economics***, 80(2): 385-417.
- Volberda, H. W., & Lewin, A. Y. 2003. Guest Editor's Introduction Co-Evolutionary Dynamics Within and Between Firms: From Evolution to Co-Evolution. ***Journal of Management Studies***, 40(8): 2111-2136.
- Voss, G. B., & Voss, Z. G. 2012. Strategic Ambidexterity in Small and Medium-Sized Enterprises: Implementing Exploration and Exploitation in Product and Market Domains. ***Organization Science***, Early Online View.
- Wales, W. J., Parida, V., & Patel, P. C. 2013. Too Much of a Good Thing? Absorptive Capacity, Firm Performance, and the Moderating Role of

- Entrepreneurial Orientation. ***Strategic Management Journal***, 34(5): 622-633.
- Ward, J. L. 1987. ***Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability, and Family Leadership***. San Francisco: Jossey-Bass.
- Webb, J. W., Ketchen, D. J., & Ireland, R. D. 2010. Strategic Entrepreneurship Within Family-Controlled Firms: Opportunities and Challenges. ***Journal of Family Business Strategy***, 1(2): 67-77.
- Wernerfelt, B. 1984. A Resource-Based View of the Firm. ***Strategic Management Journal***, 5(2): 171-180.
- Young, I. T. 1977. Proof Without Prejudice: Use of the Kolmogorov-Smirnov Test for the Analysis of Histograms From Flow Systems and Other Sources. ***Journal of Histochemistry and Cytochemistry***, 25(7): 935-941.
- Zahra, S. A., Hayton, J. C., & Salvato, C. 2004. Entrepreneurship in Family vs. Non-Family Firms: A Resource-Based Analysis of the Effect of Organizational Culture. ***Entrepreneurship Theory and Practice***, 28(4): 363-381.
- Zellweger, T. M., Kellermanns, F. W., Chrisman, J. J., & Chua, J. H. 2012. Family Control and Family Firm Valuation by Family CEOs: The Importance of Intentions for Transgenerational Control. ***Organization Science***, 23(3): 851-868.

TABLE OF APPENDICIES

Appendix 1: Exploration and Exploitation Questionnaire Items.....	XI
Appendix 2: F-PEC Scale Questionnaire Items	XII
Appendix 3: Performance Items.....	XV

APPENDICIES

Appendix 1: Exploration and Exploitation Questionnaire Items

10. Wie stark treffen folgende Eigenschaften auf Ihr Unternehmen zu?

Bitte beurteilen Sie, inwiefern die Aussagen auf Ihr Unternehmen vor der Krise zugetroffen haben und ob sie sich in der Krise verstärkt (+) oder abgeschwächt (-) haben.

Unser Unternehmen...

...sucht nach neuartigen Ideen, indem es "über den Tellerrand" hinausschaut.

...sichert den Erfolg durch die Fähigkeit, neue Technologien zu entdecken.

...entwickelt innovative Produkte oder Dienstleistungen.

...sucht kreative Wege, um Kundenbedürfnisse zu befriedigen.

...tritt regelmäßig entschlossen in neue Marktsegmente ein.

...versucht aktiv neue Kundengruppen anzusprechen.

...ist auf Qualitätsverbesserungen und Kostensenkungen ausgerichtet.

...verbessert kontinuierlich die Zuverlässigkeit bestehender Produkte.

...steigert ständig den Automatisierungsgrad der Prozesse.

...prüft regelmäßig die Zufriedenheit bestehender Kunden.

...optimiert bestehende Angebote, um aktuelle Kunden zufrieden zu stellen.

...versucht die bestehende Kundenbasis weiter auszuschöpfen.

Trifft über-
haupt
nicht zu



Trifft voll
und ganz
zu

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Source: Lubatkin, Simsek, Ling, & Veiga, 2006)

Appendix 2: F-PEC Scale Questionnaire Items

24. Würden Sie Ihr Unternehmen als "Familienunternehmen" bezeichnen?												Ja <input type="checkbox"/>	Nein <input type="checkbox"/>
<i>Unabhängig davon, wie viele Gesellschafter im Unternehmen aktiv sind: Sehen Sie sich als ein klassisches Familienunternehmen?</i>													
<i>Falls ja:</i> Was charakterisiert Sie als Familienunternehmen?												<input type="text"/>	
25. Wie hoch ist der Anteil am Unternehmen, der von Familienmitgliedern gehalten wird?												Vor der Krise	
<i>Bitte geben Sie an, wie viel Prozent des Eigenkapitals durch die Eignerfamilie(n) gehalten werden. Bitte geben Sie auch an, ob sich dieser Anteil durch die Krise erhöht (+) oder verringert (-) hat.</i>													
Ihr Unternehmen gehört:												<input type="text"/> %	
• Eignerfamilie(n)												<input type="text"/> %	
• Familienfremden (z.B. Management, Investoren)												<input type="text"/> %	
26. Wie stark sind Mitglieder der Eignerfamilie(n) in der Führung des Unternehmens aktiv?												Vor der Krise	
<i>Bitte geben Sie jeweils an, wie viele Familienmitglieder in den Gremien aktiv sind. Bitte geben Sie auch an, ob sich die Anzahl in der Krise erhöht (+) oder verringert (-) hat.</i>													
Aus wie vielen Mitgliedern besteht Ihre Geschäftsführung insgesamt?												<input type="text"/>	
Wie Familienmitglieder sind in der Geschäftsführung Ihres Unternehmens?												<input type="text"/>	
Wie viele der Nicht-Familienmitglieder in der Geschäftsführung wurden von Familienmitgliedern ausgesucht?												<input type="text"/>	
												Vor der Krise	
												Ja	Nein
Verfügt Ihr Unternehmen über ein Aufsichts- oder Beiratsgremium o.ä.?												<input type="checkbox"/>	<input type="checkbox"/>
<i>Falls ja:</i> Wie viele Mitglieder gehören diesem insgesamt an?												<input type="text"/>	
Wie viele davon sind Mitglieder der Eignerfamilie(n)?												<input type="text"/>	
Wie viele der Nicht-Familienmitglieder des Gremiums wurden von Familienmitgliedern benannt?												<input type="text"/>	

27. Wie aktiv ist die Eignerfamilie im Unternehmen engagiert?

Bitte geben Sie jeweils die höchste Generationenzahl bzw. die Anzahl an Familienmitgliedern an.
Geben Sie bitte auch jeweils an, inwieweit sich diese Anzahl in der Krise erhöht (+) oder verringert (-) hat.

Die wievielte Familiengeneration ist Eigentümer des Unternehmens?

Welche Generation führt das Unternehmen?

Welche Generation ist aktiv im Aufsichts- oder Beirat?

Wie viele Familienmitglieder arbeiten im Unternehmen (in leitender oder nicht leitender Funktion)?

Wie viele Familienmitglieder sind zwar nicht aktiv, aber am Unternehmen interessiert?

Wie viele Familienmitglieder haben kein Interesse am Unternehmen gezeigt?

28. Wie bewerten Sie die folgenden Aussagen in Bezug auf Ihr Unternehmen?

Bitte beurteilen Sie folgende Aussagen für Ihr Unternehmen. Geben Sie bitte auch an, ob sich die Haltung in der Krise verstärkt (+) oder verringert (-) hat.

Die Familie hat sehr großen Einfluss auf das Unternehmen.

Trifft über-
haupt
nicht zu



Trifft voll
und ganz
zu

☐
☐
☐
☐
☐

Die Familienmitglieder haben vergleichbare Wertvorstellungen.

☐
☐
☐
☐
☐

Eignerfamilie und Unternehmen haben die gleichen Wertvorstellungen.

☐
☐
☐
☐
☐

Die Familie ...

... steht in Diskussionen mit Freunden, Angestellten und anderen

Familienmitgliedern voll hinter dem Unternehmen.

☐
☐
☐
☐
☐

... engagiert sich überdurchschnittlich für den Erfolg des Unternehmens.

☐
☐
☐
☐
☐

... erzählt stolz, dass sie Teil des Unternehmens ist.

☐
☐
☐
☐
☐

... fühlt sich loyal gegenüber dem Unternehmen.

☐
☐
☐
☐
☐

... ist einig mit den Zielen, Werten und Strategien des Unternehmens.

☐
☐
☐
☐
☐

... ist wirklich interessiert an der Entwicklung des Unternehmens.

☐
☐
☐
☐
☐

... profitiert langfristig sehr stark durch das Engagement im Unternehmen.

☐
☐
☐
☐
☐

... glaubt, dass die Familien- und Unternehmenswerte übereinstimmen.

☐
☐
☐
☐
☐

Falls Sie selbst Mitglied der Eignerfamilie sind: Ich (als Familienmitglied) ...

... erfahre durch mein Engagement im Familienunternehmen einen
positiven Einfluss auf mein Leben.

☐☐☐☐☐


... verstehe und unterstütze die Entscheidung meiner Familie für
die Zukunft des Familienunternehmens.

☐☐☐☐☐

(Source: Astrachan, Klein, & Smyrnios, 2002; Klein, Astrachan, & Smyrnios, 2005)

Appendix 3: Performance Items

19. Wie hat sich Ihr Unternehmen in den letzten Jahren entwickelt?	2006	2007	2008
<i>Bitte geben Sie die Werte für jedes Jahr an. Geben sie bitte auch eine Schätzung für 2009 ab.</i>			
Umsatz (in Mio. EUR)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ergebnis der gewöhnlichen Geschäftstätigkeit (EBIT; in Mio. EUR)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Eigenkapital (in Mio. EUR)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Eigenkapitalquote (in %)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bilanzsumme (in Mio. EUR)	<input type="text"/>	<input type="text"/>	<input type="text"/>

21. Wie beurteilen Sie das Ergebnis Ihres Unternehmens insgesamt?	<div> Deutlich schlechter  Deutlich besser </div>				
<i>Bitte geben Sie an, wie Sie die Entwicklung Ihres Unternehmens beurteilen.</i>					
<i>Bitte kreuzen Sie jeweils eine Antwort an.</i>					
Ergebnis relativ zu Ihren größten Wettbewerbern?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ergebnis relativ zu Ihrer Branche?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ergebnis relativ zu Ihren Planzielen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Source. Geringer & Herbert, 1991; Slater & Narver, 1993)

EIDESSTATTLICHE VERSICHERUNG

VERSICHERUNG NACH § 9 ABS. 3 DER PROMOTIONSORDNUNG DER HHL LEIPZIG GRADUATE SCHOOL OF MANAGEMENT VOM 3. DEZEMBER 2009:

Hiermit versichere ich, dass ich die vorliegende Arbeit ohne unzulässige Hilfe Dritter und ohne Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe; die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht. Bei der Auswahl und Auswertung des Materials sowie bei der Herstellung des Manuskripts habe ich keine Unterstützungsleistung erhalten. Dritte haben von mir weder unmittelbar noch mittelbar geldwerte Leistungen für Arbeiten erhalten, die im Zusammenhang mit dem Inhalt der vorgelegten Dissertation stehen. Die Arbeit wurde bisher weder im Inland noch im Ausland in gleicher oder ähnlicher Form einer Prüfungsbehörde vorgelegt. Mit der vorliegenden Arbeit wurde an anderen wissenschaftlichen Hochschulen noch kein Promotionsverfahren in Wirtschaftswissenschaften beantragt.

Leipzig, 23. August 2013

Christian Brands, M.Sc.



© HHL Leipzig Graduate School of Management, 2013

The sole responsibility for the content of this doctoral thesis lies with the author.

We encourage the use of the material for teaching or research purposes with reference to the source. The reproduction, copying and distribution of the thesis for non-commercial purposes is permitted on condition that the source is clearly indicated. Any commercial use of the document or parts of its content requires the written consent of the author/s.

For further HHL publications see www.hhl.de/publications