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Jesko-Philipp Neuenburg

Market-Driving Behavior in Emerging Firms

A Study on Market-Driving Behavior, its Moderators and Performance Implications in German Emerging Technology Ventures

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With a foreword by Prof. Dr. Malte Brettel

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Foreword

Among researchers the concept of market orientation has been broadly discussed for many years stimulated above all by the works of Kohli and Jaworski as well as Narver and Slater. These authors managed to define and operationalize the concept of market orientation in different ways and also empirically confirmed a positive performance impact of a company's market orientation. Likewise it could be shown that for emerging firms market oriented behavior can influence between 20-25% of company success. In addition it has been researched which management measures and which aspects of a company's culture foster this behavior in young, innovative firms. At the same time it should be noted that especially these young, innovative companies often create new markets with their innovative products and that (potential) customers only learn about the product when it is introduced to the market. It is questionable how a market oriented company can be successful in such a situation. Information cannot be generated from the customer and hence also cannot be disseminated or processed. These doubts form the basis for the idea of a "market-driving behavior". This is defined as a company's ability to create or influence markets. To date it is, however, unclear how such a behavior should be designed and under which circumstances it contributes to the success of young, innovative companies

This is the focus area of this dissertation by Jesko Neuenburg. Its objective is to research the so called market driving behavior (MDB). Mr. Neuenburg discusses the topic on a theoretical as well as an empirical level. In his theoretical part he presents an interesting discussion about how companies can influence markets and under which circumstances it appears more beneficial for them to behave market oriented. In the following empirical part he illustrates in much detail which properties a market environment needs to be possess in which influencing markets enhances success. Mr. Neuenburg makes a number of important contributions with this book: he enriches the theoretical discussion about the question how to orient oneself or shape the market under different circumstances thus laying the foundation for further scientific examination. Furthermore, with his context specific analysis he offers equally exciting suggestions for entrepreneurs in young, innovative companies.

Therefore I hope this work will receive attention from the broad audience it deserves.

Malte Brettel

Preface

The last decade has been an exciting time for the world economy.

We've seen ups and downs: from the Asian crisis to the rise of China and India; from the Russian crisis to the new basic resources and oil bonanza; from the new economy boom to the demise of the "Neuer Markt"; from the devaluation of the Argentine Peso to the strengthening of the Euro; from the credit driven profit inflation in the financial services sector to the global financial crisis.

New technologies have changed the way we live and work: the Internet has put the world's knowledge on everyone's desk; mobile phones enable us to reach and be reached by other people independent of location; broadband connections have made new business models possible; biotechnology has worked its way into the pharmaceutical industry and nanotechnology is slowly developing into a cross-sectional technology.

We're also facing new challenges: globalization has increased competition and made business more complex; urbanization produces problems for the cities in developing countries while the aging population causes a different set of difficulties for most developed nations; global warming and the depletion of fossil fuels pose a threat to the long-term sustainability of economic growth; decreasing job security leads to an increasing "entrepreneurization" of the work environment.

New challenges ask for new concepts. In these dynamic times also the strategic behavior of individual companies is changing. Many of the new rising stars are successful because they are more proactive in their market development than is suggested in the classical marketing literature. Prominent examples for this trend are plentiful and can be observed by reviewing the current business press. A shift from "market-driven" to "market-driving" behavior has also been acknowledged in the literature recently. This dissertation sets out to probe deeper into this emerging topic and investigate market-driving behavior and its consequences.

Jesko-Philipp Neuenburg

Table of Contents

Abbreviations

abs.	absolute
AOL	America Online
AVE	average variance extracted
ChDri	channel-driving behavior
CI	condition index
CuDri	customer-driving behavior
CoDri	competitor-driving behavior
Dipl.-Kfm.	Diplom-Kaufmann
e.g.	for example
e-mail	electronic mail
et al.	et alii (and others)
etc.	et cetera (and so on)
EM	expectation maximization
EmDri	employee-driving behavior
f.	and the following page
ff.	and the following pages
Ibid.	Ibidem (in the same place)
i.e.	that is
IHK	Industrie- und Handelskammer
InDis	intelligence dissemination
InGen	intelligence generation
IT	information technology
JMR	Journal of Marketing Research
LISREL	Linear Structural Relations
LV	latent variable
MaDri/ MDB	market-driving behavior
MO	market orientation
MSN	Microsoft Network
MuDri	multiplier-driving behavior
N	Sample size
n.a./ n/a	not available/ not applicable
n.s.	not significant
p.	page
PC	personal computer
PDF	portable document format

Perf.	performance
PhD	Philosophiae Doctor (Doctor of Philosophy)
PIMS	Profit Impact of Marketing Strategies
PLS	partial least squares
pp.	pages
Prof.	Professor
RBV	resource based view
R&D	research and development
ReDri	regulator-driving behavior
rel.	relative
Respo	responsiveness
RWTH	Rheinisch-Westfälische Technische Hochschule
SCM	Supply chain management
S.E.	standard error
SEM	structural equation modeling
SPSS	Statistical Product and Service Solutions
VC	venture capital
VIF	variance inflation factor
VoIP	Voice over Internet Protocol
vs.	versus

Figures

Tables

1. Introduction

"The reasonable man adapts himself to the world;
the unreasonable one persists in trying to adapt the world to himself.
Therefore, all progress depends on the unreasonable man."
(George Bernard Shaw)

This chapter – which is divided into three short sections – will introduce the topic and research problem of this thesis, lay out the objectives for this work and structure the contents of the following chapters.

1.1 Relevant research problem

The concept of market orientation has received significant attention from researchers and practitioners alike since the early 1990s.[1] This has been the case for established companies as well as for emerging firms.[2] Two schools of thought have developed with regard to the two approaches to market orientation. The first one - which has been considerably more researched – is mostly referred to as the "market-driven"[3] approach to market orientation which implies that "[…] businesses seek to understand customers' expressed and latent needs, and develop superior solutions to those needs"[4]. The second one - labeled as the "market-driving"[5] approach – on the other hand involves "a firm's ability to lead fundamental changes in the evolution of industry conditions by influencing the value creation process at the product, market or

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1 See e.g. Kohli and Jaworski (1990); Narver and Slater (1990) for two definitions of the market orientation concept and Rodriguez Cano et al. (2004) for a comprehensive overview of empirical studies about market orientation.

2 See e.g. Fisher and Reuber (1995); Slater and Narver (1996); Gaul and Jung (2002); Kessell (2006); Claas (2006) for a discussion of the importance of market orientation for emerging firms; contributions in the context of established companies include Jaworski and Kohli (1993); Kohli et al. (1993); Diamantopoulos and Hart (1993); Jaworski and Kohli (1996); Narver et al. (1998); Hult and Ketchen (2001); Kirca et al. (2005).

3 See Day (1990) for the concept of "market-driven" strategy.

4 Slater and Narver (1999), p. 1165.

5 See Kumar (1997); Jaworski et al. (2000); Kumar et al. (2000); Hills and Sarin (2003); Note: some sources (e.g. Jaworski et al. (2000) use the term "driving markets" to describe the same phenomenon – the two terms will be used interchangeably in this work.

industry levels."[6] This approach, however, is comparably underdeveloped in the existing literature.[7]

The first conceptualizations of market-driving strategies and behavior for established companies have been provided by Kumar et al. (2000) and Jaworski et al. (2000). However, so far there has been no research regarding the adaptation and fine-tuning of that concept for emerging firms. Because emerging firms differ from established companies in various dimensions[8] this appears to be a necessary step in order to understand and apply the market-driving concept in the context of entrepreneurship and new venture creation. In that process it will be vital to understand the cause-effect relationships, antecedents, and consequences of market-driving behavior in emerging firms.[9] Open questions include under what circumstances and in which environment emerging firms benefit from a market-driving strategy, what capabilities emerging firms need to reap those benefits, how an emerging firm actually "drives" a market, customer behavior, competitor actions, channel configuration or regulators, what the key success factors are and which impact can be generated by market-driving behavior.

Furthermore no generally accepted measurement instrument for market-driving behavior has been developed to date despite initial attempts in that direction.[10] Without such a measurement instrument, however, there is no basis for further in-depth investigations on the topic which can be used as a reference point by later research endeavors. Questions on this issue arise around two problem complexes - construction of the measurement instrument and validity for the emerging firm context. It is important to identify the key variables that determine the level of market-driving

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6 Hills and Sarin (2003), p. 17.

7 Jaworski et al. contemplate for example that "current literature has an unbalanced focus on keeping the status quo […] as compared to proactively shaping customers and/or the market […]"; Jaworski et al. (2000), p. 45.

8 See e.g. Greiner (1972); Hanks et al. (1993); Fisher and Reuber (1995); in the literature a number of "liabilities" are discussed (see e.g. Stinchcombe (1965); Freeman et al. (1983); Brüderl and Schüssler (1990)) which differentiate emerging firms from established companies and which lead to the conclusion that "entrepreneurial firms are not small established firms, but rather that they are radically different"; Carland and Carland (1996), p. 5.

9 This logic draws on the experience from research about market orientation which developed in a similar fashion; see e.g. Narver and Slater (1990); Jaworski and Kohli (1993).

10 Jaworski et al. (2000) see the development of measurement and classification instruments as the first step in designing empirical research on the topic of market-driving; Hills et al. (forthcoming) developed and tested a 13-item scale with a sample of companies in a variety of high-tech industries – an evaluation and further discussion of this and other efforts will be established in Chapter 4 of this thesis.

behavior, which scale items capture these variables and whether the scale differs between established companies and emerging firms.[11]

Finally, existing empirical research on market-driving behavior and strategies – which is in the very early stages – has been directed towards established companies and was predominantly case-based.[12] In order to empirically validate the conceptual findings about market-driving behavior of emerging firms it is necessary to conduct statistical analyses on larger samples of research objects and to investigate emerging firms as opposed to large, established firms.

This doctoral dissertation contributes in the following way: it will add to the theoretical discussion of market-driving behavior by integrating it into the larger context of market orientation and advance the empirical investigation of market-driving behavior in emerging firms by developing a measurement scale and investigate its impact on firm performance in a variety of environmental scenarios.

For practitioners this dissertation is interesting because it elaborates on an under-researched strategic behavior that has the potential to generate a competitive advantage for firms that understand when, where and how to use it.

Given that market-driving strategies "[…] offer a firm the potential to revolutionize an industry and reap vast rewards."[13] while they can generally be observed in companies that are newly entering an industry[14] it seems very reasonable that this phenomenon could yield important insights for the entrepreneurship field and should therefore receive more attention from its researchers. This thesis intends to advance the understanding of what "market-driving" means in an entrepreneurial context.

1.2 Objectives of this investigation

The objective of this thesis is to reflect on the concept of market-driving behavior and transfer it to the realm of entrepreneurship. Thereby the key components and

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[11] Brettel et al. (2005) e.g. show that the MARKOR scale developed by Kohli & Jaworski needs to be adapted in the context of emerging firms.

[12] See e.g. Harris and Cai (2002); Tuominen et al. (2004); Tarnovskaya et al. (2005) for empirical studies of the market-driving behavior concept.

[13] Kumar et al. (2000), p. 129.

[14] See Kumar et al. (2000), p. 129.

consequences of the market-driving logic will be challenged regarding their suitability in the context of emerging firms. On that basis a refinement of the concept can take place in order to increase the fit with the realities of entrepreneurial practice.

The possibilities to achieve competitive advantage and superior business performance via a market-driving strategy will be explored, its impact evaluated, and the link between a market-driving and a market-driven business approach will be discussed with the aim to present an integrated concept of market-driving behavior in emerging firms.

A further objective is the operationalization of that refined concept by developing a measurement instrument to determine the level of market-driving behavior a particular emerging firm exhibits.[15] Existing measurement instruments will be critically discussed and suitable scale-items integrated into a self-constructed measurement instrument for market-driving behavior of emerging firms.

To test the hypotheses derived from the conceptual discussion the results from an empirical study with a sample of emerging technology firms will be presented and evaluated. The focus of this empirical study will be on the market-driving behavior – company performance relationship and its moderators. At the same time the self-constructed measurement instrument will be used to assess the level of market-driving behavior of the sample companies which should allow for some indications about the quality of the measurement scale.

Final objective is the discussion of the limitations of the presented research and the definition of areas for further research for all parts of the thesis – concept building, cause-effect relationships, measurement instrument and empirical findings.

The key research objectives and corresponding questions to be answered by this thesis are summarized in Figure 1.

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[15] Jaworski et al. (2000) state that market-driving behavior is a matter of degree influenced by i) the number of changes effected in a market and ii) the magnitude of those changes.

Figure 1: Key research objectives

1.3 Content of thesis

Chapter 1 has begun with defining the research problem and stating the objectives of this thesis. This section gives an overview of the contents to be found in the following chapters and the general logic of the dissertation.

Chapter 2 of this thesis starts by defining the relevant terms "emerging firms", "market orientation", "market-driving behavior" and "market-driven behavior". It also introduces the basic idea of market-driving behavior in emerging firms. The nature of the relationship between market-driving behavior and market-driven behavior is explored and market-driving behavior is discussed from a strategy and a stakeholder perspective. This prepares the theoretical ground by providing definitions and giving conceptual explanations for the relationships of market-driving behavior with other concepts.

In Chapter 3 the market-driving behavior concept is introduced in more detail, its transferability to the emerging firm context discussed and a comprehensive concept for market-driving behavior and strategies in emerging firms developed. A brief literature

review is followed by the introduction of the basic elements of the market-driving behavior concept. The consequences of market-driving behavior on firm positioning and performance are evaluated and moderators of the relationship between market-driving behavior and firm success are assembled. This provides the theoretical base from where the constructs of the structural model to be investigated in the empirical study are derived. The structural model is presented towards the end of the chapter.

A measurement instrument for market-driving behavior in emerging firms is developed in Chapter 4 drawing on the conclusions from Chapters 2 and 3 and considering contributions from the extant literature. A rigorous scale development process is used to refine this instrument.

Chapter 5 contains the results of the empirical study of this thesis. The data collection section elaborates on the process by which suitable firms were identified, the survey was administered and the resulting raw data was edited. The sample properties are illustrated. The data analysis section explains the method used to analyze the data, establishes evaluation criteria and provides the quality assessment of the measurement and structural models. This is the logical continuation of the previous chapters in that it employs the survey instrument developed in Chapter 4 to generate the data with which to estimate the structural model and test the hypotheses derived in Chapter 3.

Chapter 6 goes beyond a mere assessment of the quality of the results obtained. It offers an interpretation of the results and derives implications for practitioners (entrepreneurs) and researchers. The limitations of the empirical study are stated and suggestions for further research elaborated.

The final chapter – Chapter 7 – is a summary.

Figure 2 provides an overview of the structure of the thesis.

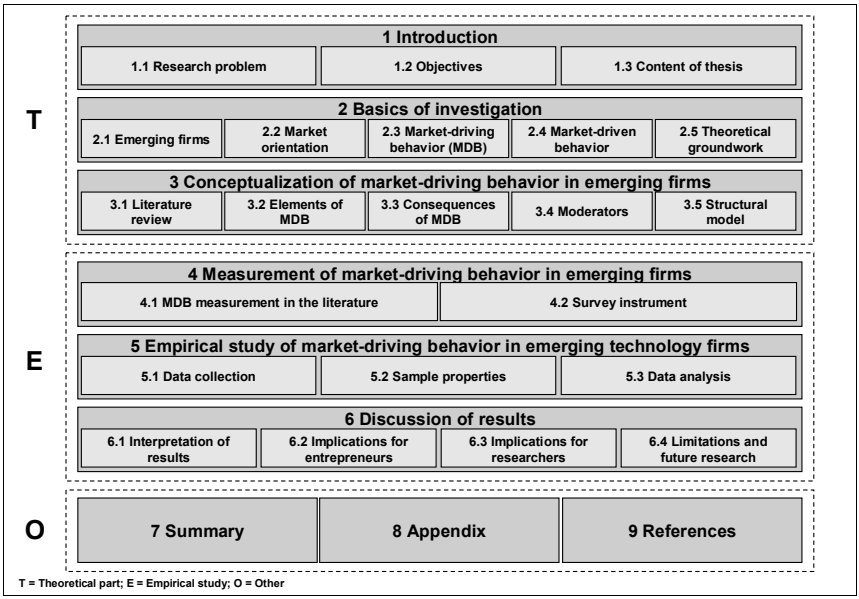

Figure 2: Contents of thesis

2. Basics of investigation

This chapter will introduce the key definitions and theories employed in this work. The terms emerging firms, market orientation, market-driving behavior and market-driven behavior are explained and their use within this thesis clarified. After that the theoretical basis is laid by introducing in more detail the two currents of market orientation and their interaction. This is the starting point for elaborating a concept of market-driving behavior for emerging firms and deriving hypotheses which will be done in Chapter 3.

2.1 Emerging firms

This chapter will introduce the research object of this thesis: emerging firms. They will briefly be discussed in the context of entrepreneurial research. This will highlight their importance as a research object. Different dimensions along which to define emerging firms will be discussed in a second step and a working definition within this thesis will be established. The final part of the chapter will touch important characteristics of emerging firms and show how they are different from established companies.

2.1.1 Emerging firms and entrepreneurial research

Emerging firms are one of the important research objects for entrepreneurship scholars. After having investigated the personality of the founder to great lengths[16] – with mostly mixed results in terms of universal insights[17] – the focus of the discipline has in recent years shifted to the entrepreneurial firm as the unit of investigation[18]. This has led to a large number of research projects in entrepreneurship that dealt with categories such as emerging firm lifecycles[19], advantages and liabilities[20], success factors[21] and their impact on their environment as well as the environment's impact on the firms[22] – just to name a few.

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16 See e.g. Timmons (1978); Aldrich (1999).
17 See Brockhaus (1980), pp. 518f.; Van de Ven (1993).
18 See Aldrich and Martinez (2001), p. 52; Gartner (1988), p. 21.
19 See e.g. Kazanjian (1988); Kazanjian and Drazin (1990).
20 See e.g. Stinchcombe (1965); Aldrich and Auster (1986); Brüderl and Schüssler (1990); Brüderl et al. (1996).
21 See e.g. Hofer and Sandberg (1987); Lumpkin and Dess (1996); Pelham (2000).
22 See e.g. Covin and Slevin (1989); Romanelli (1989); Chandler and Hanks (1994); Dess et al. (1997); Becherer and Maurer (1997).

Emerging firms have also been recognized to deliver an important contribution to the development of economies[23] and the generation and proliferation of innovation[24]. This perception has been maintained even after the new economy bubble burst in 2000/2001. Still most radically new products and even industries – from web search (Google) to solar energy (Solarworld, Q-Cells, etc.) – are driven by emerging firms. These firms are also responsible for the majority of new jobs created in major advanced economies.[25] They also develop a good part of new technologies which later are often snatched up by incumbents – recent examples from the technology area include VoIP pioneer Skype (bought by eBay), community portal MySpace (acquired by News Corp.) and video platform YouTube (now part of Google).

2.1.2 Definition of emerging firms

The entrepreneurship field is constantly evolving – examining different characteristics or behaviors of emerging firms – and there are no general definitions of what an emerging firm is or how it is characterized.[26] There are, however, several dimensions to draw on if one seeks to define the term "emerging firm". These dimensions include:

- Type of organization
- Original vs. derivative venture
- Opportunistic vs. craftsmen entrepreneur
- Innovative vs. imitative venture
- Growth oriented vs. lifestyle venture
- Young vs. old venture

First the type of organization will be discussed. A distinction can be made between companies and non-profit organizations.[27] Whereas companies are usually in business

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[23] See Schumpeter (1934); Kirzner (1978); Casson (1982); Storey and Tether (1998); Wong et al. (2005) add a degree of specificity by empirically demonstrating that it is not so much overall entrepreneurial activity that fosters economic growth but rather the share of "high potential entrepreneurship" – as opposed e.g. to "necessity entrepreneurship" – that determines the rate of economic growth.

[24] See Fallgatter (2004), p. 30; Wong et al. (2005).

[25] See Birch (1987); Picot and Dupuy (1998); Hofer and Sandberg (1987), p. 11.

[26] See Fallgatter (2002), pp. 15ff.; Bygrave and Hofer (1991), pp. 13f.

[27] See DiMaggio and Anheier (1990).

to “make money” (i.e. generate profits) non-profit organizations can have a multitude of other – frequently non-financial – goals.

The second dimension describes the origin of the emerging firm. The emerging firm can be formed by one founder or a group of founders (original venture) or by another company (derivative venture). The main difference is that original ventures are constructed “from scratch” without any predecessor structures whereas derivative ventures are based on existing structures that are transferred into a new entity.[28]

Thirdly, the type of entrepreneur can be used to differentiate different types of emerging firms. A classical categorization goes back to Smith (1967) who describes opportunistic entrepreneurs as opposed to craftsmen entrepreneurs.[29] The venture of an opportunistic entrepreneur usually is more technology affine and has more growth potential. The venture of a craftsmen entrepreneur, on the other hand, is usually located in less innovative areas such as the crafts or small retail outlets and possesses significantly less growth potential. The German literature makes a similar distinction between “Unternehmensgründung” and “Existenzgründung”.[30] Table 1 shows the main differences.

Dimension	“Unternehmensgründung”	“Existenzgründung”
Starting point	• New product/market combination • Generally independent of the founder	• Permanently omnipresent founder • Business idea has already been realized in similar form
Examples	• Technology-oriented producers • Innovative service providers	• Crafts, Retail, Traditional Intermediaries
Type of competition	• Competition based on innovation	• Competition for market share
Time perspective of business idea	• Product lifecycle exits • Market stages have formative character	• No (medium-term) visible product lifecycle
Growth and employment potential	• Principally no limitation	• Clearly limited • Family employment is typical

Table 1: “Unternehmensgründung” versus “Existenzgründung”
Source: Following Fallgatter (2004), p. 26.

This conceptualization also already introduces two further dimensions: innovativeness and growth orientation. Emerging firms can be classified according to their level of innovativeness. Entrepreneurial firms are typically thought to be innovative.[31] They

[28] See Szyperski and Nathusius (1977), pp. 26f.
[29] See Smith (1967), pp. 12ff.
[30] See Fallgatter (2004), pp. 25ff; Szyperski and Nathusius (1977), pp. 27f.
[31] See Carland et al. (1984).

also frequently serve complex and turbulent markets where technological discontinuities occur.[32] On the other hand there are imitative firms that copy an already proven business model and are therefore less innovative. The innovative ventures are often found in high-tech industries (e.g. electronics, software and biotechnology) while imitative ventures are a common feature of less technology oriented sectors (e.g. traditional real estate brokerage, restaurants and small retail businesses).

Equally, emerging firms can be described as more or less growth oriented. Less growth oriented ventures are frequently characterized as "lifestyle ventures" whereas the other end of the continuum can be described as "higher potential, growth-minded ventures".[33] Lifestyle ventures are often little more than an extensive hobby which generates a low income for the founder barely large enough to make a living. High growth ventures intend to expand their operations thus creating employment for multiple individuals. These ventures also typically go through a lifecycle with pronounced development stages for market entry, growth, consolidation and maturity.[34, 35]

Finally emerging firms can be classified according to their age. Young companies can thus be differentiated from old companies. There is however no exact definition where the border between these two categories lies. While some authors define young start-ups as no older than 3-5 years other authors favor a broader definition of up to 12 years.[36] For the purpose of empirical research a time horizon of 8-12 years is frequently employed.[37] It has been noted however, that the time necessary for a company to reach maturity is dependent on situational variables such as industry, resource endowment or company strategy.[38]

For the purpose of this work emerging firm will be defined along the aforementioned dimensions as entrepreneurial firms that have "not yet reached a phase in [their…] development where [they…] could be considered a mature business"[39]. Other authors

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32 See Christensen et al. (1998), Anderson and Tushman (1990).
33 See Timmons (1999), pp. 240f.
34 See e.g. Kazanjian (1988); Kazanjian and Drazin (1990).
35 On the issue of new venture lifecycles see Chapter 3.4.1.
36 See Chrisman et al. (1998), p. 6; Bantel (1998), p. 207.
37 See Fallgatter (2004), p. 28.
38 See Fallgatter (2004), p. 28.
39 Chrisman et al. (1998), p. 6.

have employed the terminology "new entrepreneurial ventures" (NEVs) to describe the same group of companies.[40]

Non-profit organizations are excluded because they display different dynamics and often have different goals than for-profit companies. The companies also have to be founded by one or several founders and cannot be derivatives (branches, spin-offs, etc.) of larger corporations. They should be pursuing an opportunity and show a growth orientation separating them from pure "lifestyle ventures". As mentioned above the emerging firm literature mostly suggests an age of 8-12 years as appropriate for empirical studies. In order to have a chance of including a broad range of companies on different levels of development the upper bound of 12 years will be utilized.[41]

2.1.3 Characteristics that differentiate emerging firms from established companies

Emerging firms can be differentiated from established firms along four key dimensions: size, age, ownership/ management structure and uncertainty. These characteristics of emerging firms are known in the literature as the "liabilities" of new ventures as emerging firms are considered to be at a disadvantage to established firms along these dimensions.

Because new ventures are usually small in size they are attributed with a "liability of smallness". The pool of resources which an emerging company possesses is small as the companies do not have extensive financial means, have few employees and only limited knowledge about their markets. This has a negative impact on the survival rate of these firms.[42]

Emerging firms additionally face a "liability of newness". Because they need to define new and unfamiliar structures, activities and processes and have to establish

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[40] See Brettel et al. (2007), pp. 5ff.

[41] Bantel points to the fact that between 5 and 12 year old firms have proven that their strategies are viable because they have survived the initial years where emerging firms are most likely to fail; Bantel (1998), p. 207; Hanks et al. find in their empirical study of emerging firms that those small firms that do not fit the traditional lifecycle model – and which should be excluded in this study – can be found in clusters with an average age of 12.65 and 18.7 years respectively; see Hanks et al. (1993), pp. 22f.

[42] See Aldrich and Auster (1986), pp. 167ff; Brüderl and Schüssler (1990).

relationships with new, often unknown exchange partners, emerging firms have a significantly higher "mortality risk".[43]

Another peculiarity of emerging firms is their strong focus on the founder. Acting as the "owner-manager" of the firm he is the one who makes all important decisions and is the key possessor of relevant knowledge and relationships.[44] In that respect the emerging firm is dependent upon him. Because he usually also holds the company's equity he naturally dominates the firm.[45] If the founder is not willing to delegate some of his authority and control to other managers as the firm grows he risk to become a bottleneck himself to the further development of the company. This phenomenon is known as the "liability of the owner/ manager".[46]

A final differentiator between emerging and established companies is the level of uncertainty they are exposed to. Emerging firms frequently have to make decisions on the basis of rudimentary knowledge. They have to act in novel and innovative ways that do not adhere to conventional wisdom about doing things. Thus they cannot readily judge the consequences their actions will cause.[47] Because emerging firms – and especially innovative ones – frequently introduce new combinations of resources they also themselves introduce additional turbulence to their markets.[48] In summary they face a much higher level of risk and uncertainty than do their established counterparts. In the literature this is labeled as the "liability of uncertainty".

But emerging firms also have certain beneficial features. Due to less established organizational structures they possess a higher level of flexibility. The decision making process is usually faster and thus reactions to changes in the marketplace can be introduced more promptly.[49]

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43 See Stinchcombe (1965), p. 148; Aldrich and Auster (1986).
44 See Shane and Stuart (2002), p. 154.
45 See Miller and Toulouse (1986), p. 48.
46 See e.g. MacMahon and Murphy (1999), pp. 26f.
47 Milliken terms the inability to assign probabilities to the likelihood of future events as "State Uncertainty", the inability to predict the impact of environmental changes on the organization as "Effect Uncertainty" and the lack of knowledge about response options and their likely consequences as "Response Uncertainty"; See Milliken (1987), pp. 134ff.
48 See Gruber (2004), p. 167.
49 See Gruber (2004), p. 167.

On the other hand, established companies possess certain characteristics that can play to their disfavor as has been described in much detail by Christensen.[50] They have a higher level of resource specificity than emerging firms which allows them to better produce marginal innovation within their existing products and markets. However, this resource specificity – e.g. specific machinery, production processes, distribution relationships or managerial concepts – creates inertia and inflexibility when it comes to radical innovations (e.g. emerging technologies) which require a completely different set of competences. Established companies also have to choose how to allocate their resources to new projects and will always be inclined to support those projects closer to their proven way of doing business. They also have to carefully manage the risk associated with emerging technologies and cannot bet the luck of the entire company on any single such technology. This type of risk is much better absorbed by emerging firms and their venture capital providers who do not have the legacy of otherwise dedicated resources nor do they have to consider an established core business that might be jeopardized by the emerging technology.

2.2 Market orientation

A considerable body of literature has developed on the topic of market orientation in recent years.[51] Due to the sheer quantity of publications[52] in this area a complete overview of all related works is not feasible within the context of this doctoral thesis. The goal of this chapter is therefore to give a brief historical overview of the most important works in this area which enables in a second step to explain the recent development of two currents within the market orientation universe: a market-driven and a market-driving paradigm.

The overview will focus on the behavioral perspective of market orientation[53] and not include the cultural perspective[54] due to the focus of this work. In the end it will lead

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50 See Christensen (1997).

51 See e.g. Webster (1988); Shapiro (1988); Kohli and Jaworski (1990); Narver and Slater (1990); Kohli et al. (1993); Jaworski and Kohli (1993); Jaworski and Kohli (1996); Day (1999); Kirca et al. (2005).

52 A search on EBSCO e.g. returns over 400 hits for the term “market orientation” in a title search, close to 900 hits when searching in the abstracts and over 1000 hits when doing a full text search.

53 Kohli and Jaworski (1990) and Narver and Slater (1990) are the most well-known proponents of this perspective.

54 Deshpandé and Webster (1989) are considered the founders of this perspective which defines market orientation as “the set of beliefs that puts the customer’s interest first, while not excluding

to an understanding of the term market orientation and its currents which is the basis of this thesis.

Historically the topic developed out of a number of works in the 50s and 60s[55] which emphasized the **importance of the customer** as the focal point of business practice. Drucker (1954) did so with his classical statement that "There is only one valid definition of business purpose: to create a satisfied customer."[56]
During that time it was also first suggested that **marketing** was not only a corporate function but rather **a strategic perspective** on the company as a whole and a key ingredient in the quest to create the satisfied customer and in the end drive corporate profitability. Drucker stated that "Marketing […] encompasses the entire business. It is the whole business seen from the point of its final result, that is, from the customer's point of view."[57]

Felton (1959) added to that perspective the notion of **long-term profitability** as a central company objective by characterizing the marketing concept as "a corporate state of mind that insists on the integration and coordination of all of the marketing functions which, in turn, are melded with all other corporate functions, for the basic objective of producing maximum long-range corporate profits."[58] These works thus already contained central aspects of today's understanding of market orientation: a company-wide orientation towards the customer, coordination across the different functions within a company and the relationship of this orientation to profitability.

The next step was taken by Webster (1988) who introduced the term **"marketing orientation"** in the context of implementing the marketing concept within an organization.[59] Companies with such an orientation should award an important position to the person in charge of marketing, integrate marketing and sales efforts, generate and disseminate information about customer preferences via a specialized IT

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those of all other stakeholders such as owners, managers, and employees, in order to develop a long-term profitable enterprise."; Deshpandé et al. (1993), p. 27.

55 See e.g. Drucker (1954); Levitt (1960); Keith (1960).
56 Drucker (1954), p.37.
57 Drucker (1954), p.39.
58 Felton (1959), p. 55.
59 See Webster (1988).

system, strive for profit rather than revenue maximization and live the often heard "customer first" mantra.[60]

In the same year Shapiro (1988) used the term **"market orientation"** and developed a list of questions which were meant to help companies assess their degree of market orientation. These questions mainly focused on the behavior of companies towards their business partners, the compliance with self-obstructed standards and their way of interaction. Internal coordination – an important aspect of later definitions of market orientation – is also mentioned.[61]

The first comprehensive theoretical discussion of the **market orientation concept** is usually attributed to Kohli & Jaworski (1990). In their study they analyze the different definitions about the implementation of the marketing concept at that time, conduct expert interviews on the topic and finally distill their own definition of market orientation which includes three dimensions: "Market orientation is the organizationwide *generation* of market intelligence pertaining to current and future customer needs, *dissemination* of the intelligence across departments, and organizationwide *responsiveness* to it."[62] Apart from their definition the authors discuss a number of antecedents and consequences of market orientation as well as moderators of the market orientation – business performance relationship.[63]

In the same year Narver & Slater (1990) propose a different definition of market orientation: "Market orientation consists of three behavioral components – customer orientation, competitor orientation, and interfunctional coordination – and two decision criteria - long-term focus and profitability."[64] In contrast to the Kohli & Jaworski definition they explicitly include competitor orientation under the umbrella of market orientation and include profitability as part of market orientation – something that Kohli & Jaworski reject in their study citing that "Without exception, interviewees viewed profitability as a *consequence* of a market orientation rather than a part of it."[65] These differences aside Narver & Slater emphasize that the behavioral

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60 See Webster (1988), p. 5.
61 See Shapiro (1988), pp. 119ff.
62 Kohli and Jaworski (1990), p. 6.
63 See Kohli and Jaworski (1990), pp. 6ff.
64 Narver and Slater (1990), p. 21.
65 Kohli and Jaworski (1990), p. 3.

content of their definition is consistent with Kohli & Jaworski's findings.[66] The authors also develop a scale to measure market orientation consisting of their five proposed constructs. However, only the three behavioral components are found to possess validity while the two decision criteria are rejected. The authors themselves thus admit that they found "[…] support for the construct validity of the three-component model of market orientation […]" from their empirical results.[67] A second important finding from their empirical study is a **positive relationship between market orientation and business profitability**.[68]

Day (1990) sees **skills** rather than behaviors as the essence of market orientation when he states "market orientation represents superior skills in understanding and satisfying customers"[69]. He also describes market oriented firms – which he calls "market-driven"[70] – as companies which "have superior market sensing, customer linking and channel bonding capabilities."[71] It appears, however, that "understanding the customer" is in its content very close to "generating intelligence" about the customer and that "satisfying the customer" can be interpreted as "being responsive" to the customer's needs. Therefore, also Day's definition seems to be consistent with the definition of Kohli & Jaworski.

Kohli et al. (1993) develop a further **measurement instrument** for market orientation which includes the three constructs "Intelligence generation", "Intelligence Dissemination" and "Responsiveness". The results of their study are moderately supportive of their market orientation constructs.[72] Named "MARKOR" this measurement instrument has since received significant attention and has been utilized in a number of empirical studies[73,74].

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66 See Narver and Slater (1990), p. 21.
67 Narver and Slater (1990), p. 24.
68 See Narver and Slater (1990), p. 32.
69 Day (1994), p. 37.
70 See Chapter 2.4 for a further discussion and definition for the purpose of this work.
71 Day (1994), p. 41.
72 See Kohli et al. (1993), p. 467.
73 See Kohli et al. (1993).
74 See e.g. ; Pelham (1997); Matsuno et al. (2000); Grewal and Tansuhaj (2001); Kara et al. (2005); for a more comprehensive overview of empirical studies involving market orientation see also Claas (2006), pp. 35-38.

Jaworski & Kohli (1993) also detail their thoughts about **antecedents and consequences** of market orientation.[75] As antecedents they discuss top management, interdepartmental dynamics and organizational systems. They propose that top management emphasis on market orientation will increase market orientation whereas top management's risk aversion will decrease the level of market orientation. Their results show a significant and positive influence of top management emphasis but no significant relationship of top management risk aversion on market orientation.[76] Regarding interdepartmental dynamics their hypotheses are that interdepartmental conflict will lead to a lower degree of market orientation while interdepartmental connectedness will lead to a higher degree of market orientation. The results confirm their hypothesis about interdepartmental conflict but provide ambiguous results regarding interdepartmental connectedness.[77] The final set of antecedents pertains to organizational systems. Jaworski & Kohli assume that formalization, centralization and departmentalization will negatively affect intelligence generation, dissemination and response design but will positively affect the response implementation. Their analysis supports the negative relationship between centralization and market orientation but does not find a relationship between formalization or departmentalization and market orientation. Moreover, a more market based measurement and reward system for managers – focusing on factors such as customer satisfaction or building customer relationships – should increase market orientation. The results lend strong support to this supposition.[78]

On the topic of the consequences of market orientation Jaworski & Kohli find a significantly positive relationship between market orientation and a subjective measure of business performance. However, the same relationship cannot be confirmed for an objective performance measure. Also, results support their hypotheses that market orientation has a positive effect on the commitment of employees to their organizations and on their "esprit de corps". Their tests for a moderating effect of market turbulence, competitive intensity, and technological turbulence fail to show a significant moderating effect of these variables on the relationship between market orientation and performance. [79]

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75 See Jaworski and Kohli (1993).
76 See Jaworski and Kohli (1993), p. 61.
77 See Jaworski and Kohli (1993), p. 63.
78 See Jaworski and Kohli (1993), p. 63.
79 See Jaworski and Kohli (1993), p. 64.

Cardogan & Diamantopolous (1995) contribute by comparing the concepts of Kohli & Jaworski and Narver & Slater. Their conclusion is that the two concepts are similar in nature albeit each concept also contains aspects that are not adequately reflected by the other concept.[80] The authors also develop an integrated definition of market orientation which is meant to facilitate the operationalization of the construct.[81]

Liu (1995) conducts an empirical investigation about the relationship between **company size and market orientation**. The results show a stronger market orientation of large or very large compared to medium size companies.[82]

Hunt & Morgan (1995) embed market orientation in the context of **competitive strategy**[83] by attributing it the features of a sustainable competitive advantage – i.e. being rare, valuable, difficult to imitate and non-substitutable.[84,85] In doing so, they provide an explanation for the empirically confirmed positive relationship between market orientation and company performance.[86]

Fischer & Reuber (1995) for the first time report findings that confirm a **positive relationship between market orientation and firm performance also for emerging firms**. They further detect the owner's previous marketing experience as a predictor of an emerging firm's market orientation.[87]

Pelham & Wilson validate the market orientation – performance relationship in emerging firms in an empirical study in 1996. They find that market orientation has a positive influence on both the relative product quality and **new product success**.[88] In further research Pelham also declares that market orientation can especially for small firms provide opportunities to obtain a **sustainable competitive advantage**.[89]

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80 See Cadogan and Diamantopoulos (1995), p. 48.

81 They reconceptualize market orientation as "*intelligence generation*, *intelligence dissemination* and *responsiveness* activities, characterized by a *customer* and *competitor orientation* and guided by a *coordinating mechanism* which ensures that these activities are carried out effectively and efficiently"; Cadogan and Diamantopoulos (1995), p. 55.

82 See Liu (1995), p. 68.

83 See Porter (1980).

84 See Hunt and Morgan (1995), p. 13; Barney (1991), pp. 106ff.

85 For the concept of competitive advantage see Porter (1985).

86 See Narver and Slater (1990); Jaworski and Kohli (1993).

87 See Fisher and Reuber (1995).

88 See Pelham and Wilson (1996), p. 136.

89 See Pelham (1997), p. 67.

An important contribution in the direction of structuring and integrating the research area of market orientation is achieved by Jaworski & Kohli in 1996. They review the results of research up to that point and come up with an extension of their 1990 definition which integrates the majority of perspectives on the conceptual content of market orientation as "the organizationwide generation of market intelligence pertaining to customers, competitors, and forces affecting them, internal dissemination of the intelligence, and reactive as well as proactive responsiveness to the intelligence."[90] By including competitors and "forces affecting" customers and competitors the scope of the market orientation concept is effectively expanded to include **all relevant stakeholder groups** of a company. By differentiating reactive and proactive responsiveness the authors lay the cornerstone for two currents under the umbrella of market orientation: market-driven and market-driving behavior.[91]

The same two authors together with Sahay make the distinction between the two market orientation approaches very clear in 2000 when they propose that there are "two approaches to being market oriented—a market-driven approach and a driving-markets approach. **Market-driven** refers to a business orientation that is based on understanding and reacting to the preferences and behaviors of players within a given market structure. **Driving markets**, on the other hand, implies influencing the structure of the market and/or the behavior(s) of market players in a direction that enhances the competitive position of the business."[92]

Hult & Ketchen (2001) investigate how **market orientation, entrepreneurship, innovativeness and organizational learning** lead to "positional advantage"[93] for a firm. Their findings show that the higher order construct positional advantage has a positive effect on three different performance measures and that market orientation has the strongest influence on positional advantage of all four variables. The authors conclude that "it is essential to incorporate market orientation into strategic management research to fully understand and predict important outcomes."[94] They also argue in favor of investigating market orientation and its relation to other variables "in different market conditions, using diverse firm types, and with varying

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90 Jaworski & Kohli (1996), p. 131.
91 See Chapters 2.3 and 2.4 for an in-depth discussion of those two currents.
92 Jaworski et al. (2000), p. 45.
93 See Day (1994).
94 Hult and Ketchen (2001), p. 906.

degrees of resource endowments […]".[95] – joining the ranks of authors who advocate putting more emphasis on **situational factors** in the analysis of market orientation.[96]

Narver, Slater & MacLachlan (2004) introduce a distinction between responsive and proactive market orientation.[97]

Responsive market orientation[98] is focused on discovering, interpreting and responding to customer's *expressed needs*. According to the authors this form of market orientation has been the focus of most research in the area of market orientation until recently.[99] Consequently to this definition intelligence generation, dissemination and response all pertain to expressed customer needs.

Proactive market orientation seeks to understand and satisfy the *latent needs* and preferences of customers.[100] Because customers per definition cannot articulate their latent needs the process of discovering and developing solutions to those needs involves a certain amount of "leading" them.

The authors also present an empirical study which compares the relationship of responsive and proactive market orientation to new-product success. It shows that **proactive market orientation** has a stronger positive influence on **new product success** that responsive market orientation.[101] For the purpose of their study they develop a measurement scale for proactive market orientation. This scale, however, reveals that their understanding of proactive market orientation differs greatly from the concept of market-driving behavior. It focuses exclusively on discovering and satisfying customer's latent needs but does not include any behavior aimed at changing those needs. It also does not include any action vis-à-vis stakeholder groups other than customers.[102] Therefore the authors' definitions of responsive and proactive market

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95 Hult and Ketchen (2001), pp. 905f.
96 See e.g. Cadogan and Diamantopoulos (1995), p. 41; Noble et al. (2002), p. 37.
97 See Narver et al. (2004).
98 Other terminology used for this orientation includes "customer-led" by Slater and Narver (1999) and customer-compelled by Day (1999).
99 See Narver et al. (2004), p. 335.
100 See Narver et al. (2004), p. 336.
101 See Narver et al. (2004), p. 344.
102 See Narver et al. (2004), p. 346.

orientation can be seen as subsets of market-driven behavior which will be discussed in chapter 2.4[103].

A **meta-analysis** about empirical studies on market orientation is advanced by Kirca et al. (2005). The authors conclude that market orientation exerts an influence on company performance by influencing innovativeness, customer loyalty and quality. Internal processes are more important than organizational structures when it comes to implementing a market orientation.[104]

Brettel et al. (2005) develop a **measurement instrument for market orientation in emerging firms** based on Kohli et al.'s MARKOR scale.[105] The three original components of market orientation are kept but the indicators are modified and adapted to better fit the emerging firm context. The results show a satisfactory validity and reliability of the modified scale.

For the purpose of this thesis a broad, behavioral definition of market orientation along the lines of Jaworski & Kohli's integrative work from 1996 will be employed which permits to subsume reactive and proactive behaviors aimed at generating, disseminating and responding to market intelligence which focus not only on customers but on all relevant market stakeholders. This definition also enables the differentiation of two sets of market oriented behavior – market-driving behavior and market-driven behavior. Chapter 2.3 and 2.4 will introduce these concepts.

2.3 Market-Driving Behavior

This Chapter will introduce the concept of market-driving behavior. It will trace its emergence predominantly during the past 10 years and explain how it is different from the traditional understanding of market orientation and yet still a part of the scope of the same. In the end it will be proposed to draw a clear distinction between market-driving behavior and the classical understanding of market orientation which will be described as a market-driven behavior. The chapter – together with the previous and the following chapters – thus tries to help structure the different terms in the market

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[103] Also refer to Figure 3 at the end of that chapter for a conceptual framework including responsive and proactive market orientation.
[104] See Kirca et al. (2005).
[105] See Brettel et al. (2005).

orientation universe in the face of the changes that occurred since the seminal work of Jaworski and Kohli (1996) which helped integrate the diverging concepts at that time.

The general line of thought about marketing until the mid 80s was that it should help companies to determine the needs and wants of customers and help the company to **adapt** itself in order to more effectively and efficiently satisfy those needs.[106]

Zeithaml & Zeithaml (1984) were among the first to question this view and pointed out that "[m]arketing is a significant force which the organization can call upon to create change and extend its influence over the environment."[107] The authors draw upon a significant body of literature mainly from the domain of management to propose a proactive role of marketing in dealing with the environment which they term "**environmental management**" and define as "[…] the proactive perspective on organization – environment relations."[108] They also propose nine strategies for environmental management classified into three groups – independent strategies, cooperative strategies and strategic maneuvering. Although most of these strategies are directed to influence competitors there are also strategies focusing on customers, regulators and other stakeholders.[109] In that respect their concept of environmental management already comes close to the current understanding of market-driving behavior.

Hamel & Prahalad (1994) elaborate the concept of **industry foresight** which deals with anticipating market developments and proactively shaping them. In their words industry foresight "[…] is based on deep insights about the trends in technology, demographics, regulation and lifestyles that can be harnessed to rewrite industry rules and create new competitive space."[110] Their concept thus implicitly includes at least two of the three elements of market orientation: intelligence generation in order to gain those deep insights and responsiveness in the form of proactively shaping the market and influencing its players. Prahalad in a guest editorial for the JMR discusses the related concept of "**market influence**": "Market influence – the capacity of a firm to affect industry dynamics, that is, costs, pricing, customer preferences, pace and

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106 See e.g. Porter (1980), p. 22.
107 Zeithaml and Zeithaml (1984), p. 47.
108 Zeithaml and Zeithaml (1984), p. 49.
109 See Zeithaml and Zeithaml (1984), pp. 50f.
110 Hamel and Prahalad (1994), p. 76.

direction of change – is tied closely to profit performance and is, therefore, an important question for managers to address."[111] The author concurrently establishes a **link between market-driving behavior and profitability** as a consequence. He also points out that there are a lot of open questions around this topic and that this topic is of high relevance for academics and managers alike.[112]

Jaworski & Kohli (1996) tie in with the two previously discussed works and acknowledge the importance of their concepts. They explicitly view industry foresight as being included in their definition of market orientation: "We view industry foresight as an important component of being market oriented."[113] With regard to Zeithaml & Zeithaml's work they also discuss the issue of proactively influencing markets (which they term "**driving markets**") and conclude that the incorporation of proactive responsiveness into the market orientation definition would "[…] be more accurate from a descriptive as well as prescriptive standpoint."[114] They also modify their original definition of market orientation accordingly (see previous chapter). The authors provide further insights when they propose that market-driving behavior "still requires the generation and dissemination of market intelligence, just that the seeds of a new product/service or other initiative […] are obtained from within rather than from the outside."[115] What they want to express here is that the underlying three components of market orientation are still valid within the context of market-driving behavior. The main difference between the traditional view of market orientation and market-driving behavior is therefore in the responsiveness step which is proactive rather than reactive. Also it might be necessary to give an initial impulse (e.g. by showing the customer a new product) in the intelligence generation step in order to provoke a feedback which delivers the desired information.

The final part of their discussion focuses on the direction for further research. Jaworski & Kohli identify a clear need for more research in the area of market-driving behavior. One topic they identify as interesting is the different approaches with which a market can be driven. As a second area of interest they propose the question "who" and

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111 Prahalad (1995), p. iii.
112 See Prahalad (1995), p. viii.
113 Jaworski and Kohli (1996), p. 126.
114 Jaworski and Kohli (1996), p. 126.
115 Jaworski and Kohli (1996), p. 127.

"under which circumstances" is able to be a market driver.[116] To that question they propose the **hypothesis that small companies are less likely to be market-driving** than large companies. This thesis intends to address some of these questions in more detail and advance the research in this interesting area.

Hamel (1996) summarizes his prior thoughts on market-driving behavior and discusses "Nine Routes to Industry Revolution" focusing on the product, market and industry level.[117]

On the product level the author suggests three market-driving strategies:
(1) A radical improvement in the value equation, i.e. fundamentally improving the price to performance ratio.
(2) A separation of form and function, i.e. to separate core benefits from the manner these benefits are incorporated in a product or service.
(3) The achievement of "joy of use", i.e. offering bizarre and fun products.[118]

On the market level Hamel also proposes three strategies:
(1) "Pushing the Bounds on Universality", i.e. redefining who is and is not a customer for a certain product or service.
(2) "Striving for Individuality", i.e. serving the individual needs of the customer through a mass customization approach.
(3) "Increasing Accessibility", i.e. make goods or services available at times or locations where they were previously not available.[119]

The final three strategies pertain to the industry level:
(1) Rescale industries, i.e. expand in order to benefit from economies of scale or reduce scale in order to better serve certain niches.
(2) Compress the supply chain, i.e. remove intermediaries.
(3) Drive convergence, i.e. cross traditional industry boundaries to create new industry definitions.[120]

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116 See Jaworski and Kohli (1996), p. 127.
117 See Hamel (1996).
118 See Hamel (1996), p. 72.
119 See Hamel (1996), pp.72f.
120 See Hamel (1996), p.73.

By his categorization Hamel introduces the notion of market-driving behavior being a multi-level concept working on the product, market and industry levels. However, it is obvious that his product level strategies eventually have an impact on customer behavior, competitor reactions and thus on the market structure as a whole. Also his differentiation between market and industry level strategies does not seem that clear because the markets he describes are in general only geographical or segmental subsets of the equivalent industries where his strategies are equally applicable.

Therefore the main contribution of his work lies in elaborating the concept of a market-driving firm (or "**industry revolutionary**" as he calls it) and providing some structure for ways in which this process may function. He also emphasizes the **importance of top management commitment and employee involvement** for the successful implementation of a market-driving strategy.[121]

Sheth & Sisodia (1999) review key paradigms that have been established in the marketing discipline over the course of its development.[122] They discuss increasing market diversity as a cause of continued market fragmentation. In these fragmented markets, they argue, market-driving behavior is a more useful paradigm than market-driven behavior because market-driven firms will get annihilated in trying to "follow the customer segments" while market-driving firms can aggregate demand by uncovering latent needs and satisfying them via mass customization.[123] In their research recommendations the authors propose to investigate whether "approaches used for shaping employee behavior [can] be used for shaping customer behavior […]"[124].

The first **conceptual work about market-driving behavior** was presented by Jaworski et al. (2000). They also present a **first definition** of market-driving behavior[125] as "influencing the structure of the market and/or the behavior(s) of market

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121 See Hamel (1996), pp. 74ff.
122 Sheth and Sisodia (1999).
123 See Sheth and Sisodia (1999), p. 81.
124 Sheth and Sisodia (1999), p. 81; the notion of employee-driving behaviour will be further elaborated in Chapter 2.5.3.
125 Jaworski et al. use the term "driving markets" – the author of this thesis will use the two terms interchangeably but has a preference for the term "market-driving".

players in a direction that enhances the competitive position of the business."[126] They propose three generic approaches[127] for how to be market-driving:

- Deconstruction approach: eliminate players in the industry value chain.
- Construction approach: add players to the industry value chain.
- Functional modification approach: alter the functions performed by market players.

All three approaches can be applied directly or indirectly. *Direct* market-driving means to construct or remove constraints for customers, competitors or other stakeholders. *Indirectly* shaping the market works by creating new or changing existing preferences of customers, competitors and other stakeholders.[128] These modified preferences then lead to changes in the behaviors of these players. Signaling e.g., is a well-researched and effective tool to influence competitor behavior by projecting certain information about competitive moves in a way that is meant to deter competitors from taking action or to provoke a certain kind of response.[129]

The authors also describe **market-driving behavior as a matter of degree** which is influenced by the quantity of changes introduced to the market and their magnitude. Using an example (Barnes & Noble) they also illustrate that "what counts is the extent to which a business changes market composition and/or behavior […]"[130]. It can thus be inferred that
a) market-driving behavior is about the **actual change occurring** rather than an intention to do so and
b) that a market-driver is purely determined by the **ability to achieve this change**.

Consequently it is of no relevance whether he is a first-mover or a follower (e.g. Barnes & Noble vs. Amazon). It is also apparent from the example that there can be more than one market-driver. The concept of **market-driving behavior** therefore **clearly differentiates from** either the concept of **pioneer/ first mover or** the concept of **market leader**. Jaworski et al. also already point to the possibility that a number of

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126 Jaworski et al. (2000), p. 45.
127 See Jaworski et al. (2000), pp. 48ff.
128 See Jaworski et al. (2000), pp. 52f.
129 See Heil et al. (1997), pp. 277ff; Prabhu and Stewart (2001), pp. 62ff.
130 Jaworski et al. (2000), p. 47.

organizations might coordinate their activities and thus multiply their potential to drive a market.[131]

Furthermore, they propose that **market-driving behavior and market-driven behavior are complementary** and that a company needs to be able to do both in order to be successful. [132] They suggest, however, that the different behaviors are most likely to be utilized in different business units of a company depending on their strategic position. The authors also clarify that in their opinion market-driving behavior works both to change expressed (or "manifest") and latent customer needs.[133] The market-driving company should investigate and generate intelligence about both of these sets of needs.

In the final part of their article Jaworski et al. discuss potential directions for further research. In order to better be able to study market-driving behavior they call for the development of a corresponding measurement instrument. They also consider an understanding of the environmental conditions (i.e. moderators) which support or prevent market-driving behavior as critical for the advancement the field. Here, they put their opinion from 1996 about whether small or large companies are in a better position to be market-driving into perspective. They state that "[f]or example, an argument could be made that large, incumbent firms with deep pockets and a strong brand name are in the best position to drive markets. Alternatively, it could be argued that start-up companies with no industry constraints are better positioned to drive a market since they do not have preconceived notions of what works in a given market. Moreover, they do not have the burden of existing investments in a particular technology."[134] They further suggest looking at the magnitude of market-driving that is feasible in different environments. From a managerial point of view they would like to better understand the relationship between market-driving and market-driven behavior.

This work by Jaworski et al. marks an important contribution in several ways. First, it introduces and defines market-driving behavior as a new concept alongside market-driven behavior and under the umbrella of market orientation which is effectively

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131 See Jaworski et al. (2000), p. 47; the notion of multiplier-driving behaviour will be further elaborated in Chapter 2.5.3.
132 See Jaworski et al. (2000), p. 47.
133 See Jaworski et al. (2000), p. 51.
134 Jaworski et al. (2000), p. 53.

decomposed into two currents. Second, it provides an initial framework for the different market-driving strategies a company can employ. Third, it categorizes market-driving behavior in a number of dimensions: continuous and not dichotomous, based on action and not intention, market-driver vs. pioneer vs. market leader, complementary to market-driven behavior and not competing with it, works with expressed and latent needs, etc. Fourth, it explicitly or implicitly introduces most of the dimensions of market-driving behavior used in later definitions, e.g. customer-driving, competitor-driving, channel-driving and regulator-driving. Finally it provides a research agenda with important issues some of which this thesis will try to investigate.

Kumar, Scheer & Kotler (2000) developed another concept of market-driving behavior in parallel with Jaworski et al. They define market driving behavior as "[…] delivering a leap in customer value through a unique business system."[135] The leap in customer value is achieved via breakthrough technology or breakthrough marketing. The business system refers to "the configuration of the various activities required to *create*, *produce*, and *deliver* the value proposition to the customer."[136] Both aspects of their definition are equally important because the **leap in customer value** is the incentive for customers to pick up the new offer while the **unique business system** is designed to deliver the value proposition in the most efficient and effective way. Moreover, whereas the value proposition is usually readily visible to competitors once it has been introduced, the business system is normally not so easily observable and thus harder to match. "In the absence of a unique business system, any advantage gained from a discontinuous leap in the value proposition can be copied fairly quickly by existing players."[137]

The authors describe market driving companies as possessing three characteristics. First, they **trigger "industry breakpoints"** which change industry fundamentals through radical innovation. Second, their market intelligence comes from **visionary** rather than classical market research. Third, they **educate potential customers** about their new value proposition rather than extracting learnings from them.[138]

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[135] Kumar et al. (2000), p. 129.
[136] Kumar et al. (2000), p. 130.
[137] Kumar et al. (2000), p. 131.
[138] See Kumar et al. (2000), p. 131.

In their view market-driving behavior does not include intelligence generation via traditional market research. Rather it starts with a visionary leader who addresses a latent or emerging need and thus creates a new market instead of competing in the existent market space. These companies change the rules of the game instead of complying with them.[139]

Kumar et al. also explain their observation that most market-driving firms are new to a particular industry by reasoning that these firms are less captured in the traditional modes of thinking of an industry.[140] Their radical ideas are often rejected by established companies if they contradict conventional wisdom in that industry. Second, the risk entailed in a market-driving idea is more easily taken by individuals who are set to profit from the potential upside (e.g. in a start-up company) and in environments that are more forgiving is case of failure (which is usually not the case in large companies).[141] Third, large companies usually favor projects that provide benefits for their currents customers (upon who they depend for today's cash flow) rather than venturing into unknown waters – a phenomenon that has become known as the "innovator's dilemma".[142] Finally, the investments a company has committed to the current technology and way to do business usually serve as a barrier to try radically new business models.[143] In summary the authors describe market-driven behavior as better suited to generate incremental innovation whereas **market-driving behavior is better suited to generate radical innovation**.[144]

Another section of the authors' article deals with ways how companies can foster market-driving behavior. First they should "allow space for serendipity", e.g. by giving employees time to work on their own projects rather than on company priorities. Second, they should assemble teams with different backgrounds and capabilities. Third, they should empower employees to become entrepreneurs within the context of the company – i.e. "intrapreneurs". This includes encouraging experimentation and a tolerance for mistakes. Fourth, they should set up independent entities which are not bound by existing structures or business systems and can

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139 See Kumar et al. (2000), p. 130.
140 This is in line with Jaworski et al.'s reasoning why emerging firms might be in a better starting position to implement market-driving behavior; see Jaworski et al. (2000), p. 53.
141 See Kumar et al. (2000), p. 136.
142 See e.g. Christensen (1997); Christensen and Bower (1996); Christensen et al. (1998).
143 See Kumar et al. (2000), p. 136.
144 See Kumar et al. (2000), p. 129.

develop without the barriers and inhibitions they would experience in the context of an established organization. This should also allow for projects that cannibalize the current core business of the company.[145]
In their conclusions the authors also propose that market-driving behavior and market-driven behavior are complementary behaviors that follow upon each other in an evolutionary process.[146]

The work of Kumar, Scheer and Kotler (2000) contains similarities and differences to the work of Jaworski et al. (2000). Both view market-driving behavior and market-driven behavior as separate approaches for a market-oriented behavior. Also, both emphasize that these two approaches are complementary rather than competing in nature. They also share a similar understanding of the characteristics of market-driving behavior as a continuous, action-oriented phenomenon which tries to institute change in the market and its stakeholders' behaviors and preferences. Finally, they identify some of the same dimensions – e.g. customer-driving behavior, competitor-driving behavior and channel-driving behavior – as key components of market-driving behavior.

Differences exist in the focus of their definitions. Jaworski et al.'s definition focuses on the actual change in market structure or behavior of market participants while Kumar et al. focus on customer value creation and the business system necessary to deliver it. In a way the first definition is a consequence of the second because a compelling and superior value proposition for the customer and the business system to implement this proposition is the impulse needed to change market structure or the behavior of market players.[147] Although Kumar at al. reject the need for intelligence generation in order to develop a market-driving idea, the author of this dissertation believes that the visionaries – which they propose as the source of these ideas – indeed do generate market intelligence and may it be only in the form of feedback from sparring-partners or potential customers to whom they present their vision. The author would therefore agree with the view of Jaworski et al. on this issue. Whereas Jaworski et al. consider both large and small companies as the potentially better market drivers, Kumar et al. seem to opt for small companies as better endowed to be market-driving.

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[145] See Kumar et al. (2000), pp. 137f.
[146] See Kumar et al. (2000), p. 138.
[147] Harris & Cai describe the conceptualization of Kumar et al. as an internal approach and the one from Jaworski et al. as an external approach; see Harris and Cai (2002), pp. 174ff.

The same authors also look more at the antecedents of market-driving behavior (i.e. what can companies do to become more market-driving) whereas Jaworski et al.'s works contained more discussion about environmental factors that might influence the impact of such behavior (i.e. when does it work better/worse).

In a **case study** about De Beers in China, Harris & Cai (2002) explored market-driving behavior in practice.[148] They incurred that **market-driving behavior is adopted by firms with significant market control** and in environments where markets are immature and product preferences are not yet formed. As key elements of a market-driving behavior they identify market sensing, changing customer preferences, channel control and local cultural sensitivity.[149] The authors also find support for several of the suggestions brought forward by Jaworski et al. and Kumar et al. about market-driving behavior. In particular they find De Beers to exhibit elements of customer driving, competitor driving and channel driving behavior. They also support the idea of a shift in focus from a market-driving behavior to a market-driven behavior over time.[150]

Hills & Sarin (2003) review the market-driving literature, conduct a survey among marketing experts and developed an integrated perspective on market-driving behavior as being "a firm's ability to lead fundamental changes in the evolution of industry conditions by influencing the value creation process at the product, market or industry levels."[151] They identify **value creation, change and leadership** as the key components of market-driving behavior.[152] Furthermore they discuss three distinct levels where market-driving behavior can occur: industry level, market level and product level.[153] They also contrast market-driving behavior with market-driven behavior, customer leading behavior and pioneering behavior and conclude that market-driving behavior is the broadest of the four concepts in terms of stakeholder groups involved as well as magnitude of change affected.[154]

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148 See Harris and Cai (2002).
149 See Harris and Cai (2002), p. 171.
150 See Harris and Cai (2002), pp. 190f.
151 Hills and Sarin (2003), p. 17.
152 See Hills and Sarin (2003), p. 15.
153 See Hills and Sarin (2003), p. 16; the multi-level characteristic of market-driving behavior is derived from Hamel (1996) – an appraisal of this view has been provided earlier in this chapter.
154 See Hills and Sarin (2003), p. 17.

In the second part of their article, Hills & Sarin discuss the appropriateness of **market-driving behavior in high technology industries** and find this behavior especially suitable due to its possibility to proactively form links between companies needed to develop complex product systems or industry standards. Finally the authors encourage further empirical studies in the field of market-driving behavior.

Carrillat et al. (2004) develop a conceptual framework that describes the **process necessary to implement market-driving behavior**. They state that market-driving behavior requires a market-driving culture instilled into an organization by a transformational leader. The authors propose a two-step process. First, an adhocracy type of culture must be created in order to embrace creativity, risk-taking and entrepreneurship which help in the design of a market-driving strategy. Then, a market-type culture should be employed to transform the creative-innovative environment into a decisive, achievement-oriented environment which supports the implementation of the market-driving strategy.[155]
Carrillat et al. also contend that the impact of market-driving behavior on company performance is more positive in environments that are high on customer interaction.[156]

Tuominen et al. (2004) investigate the link between **market-driving behavior and customer intimacy**.[157] They associate market-driving behavior with generative (explorative) learning whereas they see market-driven behavior lead to adaptive (exploitative) learning.[158]

Tarnovskaya et al. (2005) – in a case study of IKEA in Russia - investigate the relationship of a corporate brand on market-driving behavior and conclude that a **strong brand coincides with a propensity for market-driving behavior**. [159] This is due to the fact that core brand values provide a link to most relevant stakeholder groups and can unite a company behind a particular strategic intent. The authors emphasize the importance of employees as a stakeholder group because it is employees who have internalized the core brand values and transport them to other stakeholder groups like customers and channel partners. By educating external

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155 See Carrillat et al. (2004), p. 5.
156 See Carrillat et al. (2004), p. 9.
157 See Tuominen et al. (2004).
158 See Tuominen et al. (2004), p. 214.
159 See Tarnovskaya et al. (2005).

stakeholders about those values and communicating them pro-actively to multipliers like the media, trade unions and local governments, **employees hold a key function for the implementation of market-driving behavior**. To illustrate their point further they cite Balmer & Gray (2003) who wrote that "an identity that has been astutely nurtured and maintained over successive generations, that has enjoyed wide staff commitment to its ethos and values – a commitment that has in time been reciprocated by those stakeholder groups that are crucial to the organization's success and continuance – furnishes a sound underpinning for a successful corporate brand".[160] Following their line of reasoning one could argue that market-driving behavior starts internally with a company anchoring it among its core company or brand values. Via its employees the company will subsequently implement market-driving strategies that aim at shaping the market in a direction that is favorable for the company. The authors also point to the **role of multipliers** – or "opinion formers" as they call them – as key stakeholders to be incorporated in the market-driving strategy.[161] In their conclusions they state that "changing employee attitudes is thus considered as an emerging issue and additional tenet of market driving"[162] thus introducing the notion of employee-driving behavior as one of the dimensions of market-driving behavior. They also suggest that the success of market-driving behavior might be dependent on the responsiveness of the audience to such behavior.[163] In their case study they show that younger customers and more entrepreneurial suppliers were more readily willing to support the direction in which IKEA was leading the market.

In their book "Blue Ocean Strategy: How to create uncontested market space and make the competition irrelevant"[164], Kim & Mauborgne (2005) build on a series of their prior articles[165] to elaborate how companies can benefit from a strategy that tries to avoid the competition by changing (i.e. expanding) the existing market through what they term "**value innovation**". This is based on the assumption that companies with their actions can reconstruct market boundaries and industry structure (**reconstructionist view**).[166] A value innovation is achieved where a company offers

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160 Balmer and Gray (2003), p. 975.
161 See Tarnovskaya et al. (2005), p. 7.
162 Tarnovskaya et al. (2005), p. 18.
163 See Tarnovskaya et al. (2005), p.18.
164 See Kim and Mauborgne (2005).
165 See e.g. Kim and Mauborgne (2004); Kim and Mauborgne (2004); Kim and Mauborgne (2003); Kim and Mauborgne (2003); Kim and Mauborgne (1999).
166 See Kim and Mauborgne (2005), p. 108.

superior customer benefits at a lower price in an uncontested market which is new or expands on already existing markets.[167] The concept is equivalent to the "leap in customer value" that is one of the two important components of market-driving behavior in the conceptualization of Kumar et al. (2000).

Hills, Sarin & Kohli (forthcoming) and Hills and Bartkus (2007) provide the first probe into **measuring market-driving behavior**. Hills, Sarin & Kohli (forthcoming) define market-driving behavior as "the behavior of a firm that attempts to fundamentally change the structure and/or behavior of market entities"[168]. They identify four stakeholder groups as being targeted by market-driving behavior: customers, competitors, channel partners and regulators[169]. The behaviors that aim at influencing these stakeholder groups are defined consistent with the overarching definition of market-driving behavior. **Customer-driving behavior** is defined as "the extent to which a firm engages in behaviors intended to fundamentally change the behaviors of customers", **competitor-driving behavior** is defined as "the extent to which a firm engages in behaviors intended to fundamentally change the structure and/or behavior of competitors", **channel-driving behavior** is defined as "the extent to which a firm engages in behaviors intended to fundamentally change the structure and/or behavior of channel members" and **regulator-driving behavior** is defined as "the extent to which a firm engages in behaviors intended to fundamentally change the behaviors of government and/or industry regulators".[170] In their **empirical results** the authors **show a positive relationship between market-driving behavior and company performance**[171] as well as a **positive relationship between market-driving behavior and competitive advantage**[172].

The key contributions of each of these works to the area of market-driving behavior are summarized in Tables 2 and 3 which provide an overview of conceptual and

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[167] See Kim and Mauborgne (2005), p. 109.

[168] Hills et al. (forthcoming); it is noted that the content of this article which was provided as a draft to the author of this thesis by Stacey Hills is building on earlier findings by Hills, Sarin & Kohli which have been presented during a conference of the American Marketing Association in 2005 (see Hills et al. (2005)).

[169] Hills and Bartkus focus only on customer-driving and competitor-driving behavior; see Hills and Bartkus (2007), p. 146.

[170] See Hills et al. (forthcoming); for customer-driving and competitor-driving behavior also see similar definition in Hills and Bartkus (2007), p. 145.

[171] See Hills et al. (forthcoming).

[172] See Hills and Bartkus (2007), p. 152.

empirical works respectively. Following is the summary of the most important conceptual works:

Authors (Year)	Evolution of definition of market-driving behavior	Contribution
Zeithaml & Zeithaml (1984)	**Environmental management** is defined as "the proactive perspective on organization-environment relations" (p. 49)	• The market can be influenced by the actions of the company • Nine strategies of environmental management focused on customers, competitors and regulators
Hamel & Prahalad (1994) Prahalad (1995)	**Market influence** as "the capacity of a firm to affect industry dynamics, that is, costs, pricing, customer preferences, pace and direction of change" (p. iii)	• Concept of "industry foresight" and proactive response as necessary elements to influence the market • Link market-driving behavior and profitability • Highlight importance of the topic for researchers
Jaworski & Kohli (1996)	**Market orientation** as "the organizationwide generation of market intelligence pertaining to customers, competitors, and forces affecting them, internal dissemination of the intelligence, and reactive as well as proactive responsiveness to the intelligence" (p. 131)	• Include industry foresight and proactive response in their definition of market orientation • Three dimensions of market orientation remain valid for market-driving behavior • Identify need for more research in the area, especially on approaches to drive a market and circumstances that facilitate market-driving • Larger companies potentially in better position to be market-driving
Hamel (1996)	**Rule breakers** "set out to redefine the industry, to invent the new by challenging the old" (p.71)	• Market-driving can occur at the product, market or industry levels • In an increasing number of industries market-drivers rewrite the rules and disrupt the existing market structure • Defines nine strategies to be market-driving • Emphasizes the importance of commitment from top management and involvement of all employees to implement a market-driving strategy
Sheth & Sisodia (1999)	-	• Market-driving behavior advantageous in more fragmented markets
Jaworski, Kohli & Sahay (2000)	**Market-driving behavior** as "influencing the structure of the market and/or the behavior(s) of market players in a direction that enhances the competitive position of the business" (p. 45)	• External perspective of market-driving behavior • Three generic approaches to be market-driving: deconstruction, construction and functional modification • Direct or indirect (by changing preferences which in turn change behavior) market-driving behavior • Identifies four key dimensions of market-driving behavior: customer-driving, competitor-driving, channel-driving and regulator-driving. • Market-driving behavior as a continuous variable based on actual change occurring • Differentiation between market-driver, pioneer and market leader • Market-driving and market-driven behavior seen as complements • Call for development of a measurement instrument • Not clear whether small or large companies are better equipped to be market-driving
Kumar, Scheer & Kotler (2000)	**Market-driving behavior** as "[…] delivering a leap in customer value through a unique business system" (p. 129)	• Internal perspective of market-driving behavior • Link between market-driving behavior and competitive advantage of the firm • Market-driving behavior primarily in small companies/ companies that are new to an industry • Some antecedents of market-driving behavior • Market-driving and market-driven behavior are complementary and occur sequentially
Hills & Sarin (2003)	**Market-driving behavior** as "a firm's ability to lead fundamental changes in the evolution of industry conditions by influencing the value creation process at the product, market or industry	• Survey among marketing experts • Value creation, change and leadership as three main characteristics of market-driving behavior • Market-driving behavior as multi-level construct (industry, market and product level)

	levels" (p. 17)	• Market-driving behavior is broader concept than either market-driven, customer-leading or pioneering behavior • Market-driving behavior identified as suitable orientation for high-technology industries
Carillat, Jaramillo & Locander (2004)	According to Jaworski et al. (2000) and Kumar et al. (2000)	• Market-driving culture as prerequisite for market-driving behavior • Market-driving behavior has stronger positive influence on company performance in high customer interaction environments
Kim & Mauborgne (2005a)	**Blue ocean strategy** "is about driving costs down while simultaneously driving value up for buyers. This is how a leap in value for both the company and its buyers is achieved. […] Blue ocean strategy integrates the range of a firm's functional and operational activities. In this sense, blue ocean strategy is more than innovation. It is about strategy that embraces the entire system of a company's activities." (p. 109)	• "Value innovation" key component of market driving • Coordination among functional and operational activities important for market-driving behavior
Hills, Sarin & Kohli (forthcoming)	**Market-driving behavior** as "the behavior of a firm that attempts to fundamentally change the structure and/or behavior of market entities"	• Development of a measurement instrument for market-driving behavior with four dimensions: customer-driving, competitor-driving, channel-driving and regulator-driving

Table 2: Theoretical works about market-driving behavior

Following is the summary of the most important empirical works:

Authors (Year)	Object of investigation	Contribution
Harris & Cai (2002)	Case study of one company in one particular market (DeBeers in China)	• Market-driving behavior is adopted by firms with significant market control and occurs in immature markets where product preferences are not yet stable • Market sensing, changing customer preferences, channel control and local cultural sensitivity as key "tenets" of market-driving behavior • Studied company exhibited elements of customer-driving, competitor-driving and channel-driving behavior • Shift over time from market-driving to market-driven behavior
Tuominen, Rajala & Möller (2004)	140 single firms or SBUs with more than 60 employees	• Market-driving behavior leads to higher customer intimacy • Market-driving behavior is associated with generative (explorative) learning
Tarnovskaya, Elg & Burt (2005)	Case study of one company in one particular market (IKEA in Russia)	• A strong brand is associated with market-driving behavior as strong brand values present an opportunity to align employees and external stakeholders with the objectives of the company • Employee-driving (i.e. changing employee attitudes) and multiplier-driving (i.e. influencing "opinion formers") are identified as important dimensions of market-driving behavior
Hills & Bartkus (2007)	164 marketing managers from high-technology companies of different sizes	• Empirical validation of a measurement scale for market-driving behavior (with constructs for customer-driving and competitor-driving behavior) • Empirical confirmation of relationship between market-driving behavior and competitive advantage
Hills, Sarin & Kohli (forthcoming)	164 marketing managers from high-technology companies of different sizes (same sample as Hills & Bartkus, 2007)	• Empirical validation of a measurement scale for market-driving behavior (with constructs for customer-driving, competitor-driving, channel-driving and regulator-driving behavior)

		• Market-driving behavior – performance relationship empirically confirmed for a performance scale with four dimensions: differentiation of products and services, development of key customer relationships, sales from new product innovations and overall advantage relative to the competition

Table 3: Empirical studies about market-driving behavior

In summary, a range of studies about market-driving behavior has been undertaken recently. Most of those studies focused on describing and developing the concept of market-driving behavior. Empirical research was mainly undertaken in the form of case studies of companies declared to be market-drivers. Only one study whose results remain partially unpublished so far provides an operationalization of market-driving behavior as driving of relevant stakeholder groups. Studies focusing on market-driving behavior of emerging firms are not found in the extant literature to date.

Following Jaworski et al. (2000) and Hills et al. (forthcoming) market-driving behavior in this doctoral thesis will be defined as *the behavior of a company that is directed to fundamentally change the structure of the market and/or behavior(s) of market stakeholders.*

2.4 Market-Driven Behavior

For the larger part of the past 20 years the terms "market-driven" and "market-oriented" have been used interchangeably – i.e. to describe the same underlying concept.[173] Due to the appearance of market-driving behavior as a new current of market orientation it is necessary to clarify the concept of market-driven behavior. This will be done in the following section and will end with a classification of the two currents along dimensions that allow showing their similarities and differences.

First – and in analogy to the previous chapters – there will be an overview of the most important works on market-driven behavior. After that the three dimensions of market orientation will be discussed in more detail in order to derive a framework for the classification of the field.

[173] See e.g. Tierno (1987); Day (1994); Day (1998).

The beginnings of market-driven behavior can be found in the market orientation literature (see Chapter 2.2) as these concepts were identical until the mid 1990s. In the same year that Kohli & Jaworski and Narver & Slater published their seminal works on market orientation, Day (1990) published a book called "Market-Driven Strategy: Processes for Creating Value"[174]. In this book he is the first to flesh out the concept of market-driven behavior. Although his focus is more on capabilities than behaviors his understanding of a market-driven company is consistent with the market orientation perspective (see discussion in Chapter 2.2).

Cravens & Shipp (1991) state that "[t]o become more market-driven, executives must identify rapidly changing customer needs and wants, determine the impact of these changes on customer satisfaction, increase the rate of product/service innovation in business strategies, and focus on developing strategies for competitive advantage."[175] They view monitoring customer satisfaction and analyzing customer needs, finding competitive advantage and strategic targeting as the key elements of market-driven behavior. **Monitoring customer satisfaction** allows getting an early indication about changing customer attitudes and preferences. It also allows the identification of future customer needs. Analyzing these needs prevents companies from drawing false conclusions or overlooking important parts of the customer value equation.[176] The **assessment of customer needs** and wants also helps to **identify** a company's current or potential **competitive advantage**. The requirements of market segments are matched with the organizations capabilities to identify the best opportunities for advantage.[177] As markets become more fragmented the decision about which segments to target becomes increasingly more important because each segment represents its own specific needs.

The authors also advocate that quality should be market-driven, i.e. quality improvement efforts should already start in the product conception stage and take into account the quality dimensions that are relevant to the customers.[178]

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174 See Day (1990).
175 Cravens and Shipp (1991), p. 53.
176 See Cravens and Shipp (1991), pp. 55f.
177 See Cravens and Shipp (1991), pp. 56f.
178 See Cravens and Shipp (1991), p. 58.

Day (1994) describes market-driven firms as companies which possess superior capabilities to anticipate market trends ("**market sensing**"), build relationships with customers ("**customer linking**") and **respond to changing market needs** ahead of the competition.[179] In a market-driven culture the different corporate **functions are well coordinated** in order to best utilize the information procured from the market.[180] To achieve the implementation of a market-driven culture Day suggests a change process that aligns the organization structure, systems, control, incentives, and decision processes.[181]

The author concludes with a set of propositions that suggests that market-driven behavior is more likely to occur when

a) Top management is committed to and involved in the process,
b) The corporate culture supports such behavior,
c) Objectives and the reward system are aligned with external market performance measures, and
d) Decisions are taken close to the customer.[182]

Vorhies, Harker & Rao (1999) present an empirical study about market-driven firms based on the responses from 87 established manufacturing and service firms in Australia.[183] They recite the market orientation literature to define market-driven firms as firms that:

- "discover and understand the wants and needs of current and potential customers;
- monitor and react to the actions of current and potential competitors; and
- focus the firm's knowledge and resources on taking advantage of the opportunities discovered and on solving problems that arise as a result of these processes"[184].

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179 See Day (1994), p. 38.
180 See Day (1994), p. 49.
181 See Day (1994), p. 49.
182 See Day (1994), p. 50.
183 See Vorhies et al. (1999).
184 Vorhies et al. (1999), p. 1174.

Their findings show that market-driven firms develop **higher levels of capabilities** in market research, pricing, product development, channels, promotion and market management.[185] They further confirm a **positive relationship between market-driven behavior and superior business performance** along the four performance dimensions of adaptability, customer satisfaction, growth and profitability.[186]

Day (1999) discusses some misconceptions about market-driven firms that he identifies in the extant literature. He clarifies that market-driven firms are positioned in the middle of a spectrum that reaches from "customer compelled" companies to companies that "ignore the customer".[187] Customer compelled companies will do whatever customers want frequently losing focus as a consequence and not exercising a necessary amount of discipline in their strategy. Companies that ignore the customer because they feel "superior to the market" will usually cite the customer's apparent inability to express his future needs and come up with really radical as opposed to incremental innovations as a reason for not listening to him.[188]

The author also identifies three underlying dichotomies leading to the false understanding of some people of what in his opinion it means to be market-driven:
a) that a firm can either lead or follow its customers,
b) that a firm can't stay close to both current and potential customers and
c) that a company can only either bet on a technology push or a market pull strategy.

To the first dichotomy Day posits that "[t]o be market-driven means seeing past the short-sighted and superficial inputs of customers, to gain a deep-down understanding that gives managers confidence their judgments are right. Because leading customers to where they want to go is inherently risky, firms must be willing to continually learn and refine their judgments through broad scanning and experimentation. So if a company truly understands its present and prospective customers, it knows when to ignore the superficial reactions to a survey."[189] He goes on to claim that the distinction between a market-driven and a market-driving firm is "without a difference" because a "firm cannot be legitimately market-driven without a strong guiding point-of-view of

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185 See Vorhies et al. (1999), p. 1171.
186 See Vorhies et al. (1999), p. 1194.
187 See Day (1999); Day (1999).
188 See Day (1999), pp. 6ff.
189 Day (1999), p. 12.

how it wants to shape the market to its advantage."[190] Whereas it can be agreed with the notion that both market-driving and market-driven companies need a good market understanding which should extend to customer's current and latent needs, the author does not agree with Day's view that there is no distinction between the two behaviors. The difference lies in the type of response which is initiated upon having generated and disseminated the market intelligence about those customer needs.[191] The market-driven firm will work to satisfy the identified needs – treating them as a given – while the market-driving firm will design its behavior to influence these needs in a direction that is beneficial for it. This distinction is visualized in Figure 3 at the end of this chapter.

To the second dichotomy the author elaborates that a market-driven firm not exclusively focuses on current markets but at the same time also develops a "point-of-view on how the industry structure will evolve. This means tracking new entrants and understanding their capabilities, intentions, and strategies."[192] The market-driven firm will therefore also detect disruptions in technology or market preferences that might have an impact on either currently served or potential future markets.[193]

Day describes the choice between a technology driven and a market-driven business approach as the third dichotomy. Due to an engineering driven culture, organizational structure and time-to-market pressure it can happen, that companies rely solely on what is technologically achievable without considering what is desirable from the customer's point of view. The author counters that the best results can be achieved through an integration of these two perspectives rather than through opting for one or the other.[194]

In his conclusion Day advocates a market-driven behavior that transcends these dichotomies: "Market-driven organizations can follow customers in identifying potential problems and lead them in presenting solutions. They can serve current customers and remain vigilant for unserved emerging markets. They can join the finest

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190 Day (1999), p. 12.
191 See Jaworski et al. (2000), p. 45.
192 Day (1999), p. 13.
193 See Day (1999), p. 13.
194 See Day (1999), pp. 14f.

laboratory research with the finest market research."[195] One can only agree to these statements.

Johnson et al. (2003) relate market-driven and market-driving behavior with market-focused strategic flexibility which they define as "the firm's intent and capabilities to generate firm-specific real options for the configuration and reconfiguration of appreciably superior customer value propositions."[196] They propose that **market-driving behavior leads to higher levels of market-focused strategic flexibility** than market-driven behavior because the underlying bundle of options for the firm needs to be greater if the firm is to shape its market as opposed to adapting to it.[197] Their second proposition is that environmental turbulence acts as a moderator of the relationship between market orientation and market-focused strategic flexibility with a stronger moderating effect occurring in the case of market-driven behavior and a weaker moderation occurring in the case of market-driving behavior. This is due to the fact that independent of the level of environmental turbulence a significantly larger option bundle has to be generated if a company wants to drive its market. If the company takes a more reactive stance as in the case of market-driven behavior the option bundle need not be very large in a calm environment but has to be considerably larger in a turbulent environment in order to provide reactive options for all possible change scenarios.[198] Different performance implications of market-focused strategic flexibility in the short and long term are also discussed with the overall tenor being that a higher level of market-focused strategic flexibility benefits performance in a highly turbulent environment whereas a lower level of market-focused strategic flexibility would decrease performance in such an environment.[199] This would imply that a market-driving behavior – which results in a higher level of market-focused strategic flexibility as discussed before – would yield better performance in a turbulent environment than a market-driven behavior.

Coming to the second part of this chapter the three main elements of a market orientation will subsequently be discussed in further detail. They are:

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195 Day (1999), p. 15.
196 Johnson et al. (2003), p. 77.
197 See Johnson et al. (2003), pp. 80ff.
198 See Johnson et al. (2003), pp. 82f.
199 See Johnson et al. (2003), pp. 83ff.

- **Intelligence generation**[200]
- **Intelligence dissemination** within the organization[201] and
- **Coordinated response** involving all business functions[202]

A more in-depth look at the three components of Kohli & Jaworski's market orientation definition will help to understand the different dimensions the concept encompasses and be a useful framework to differentiate the developing currents of market orientation.

1. Intelligence generation: In this first step information is created which is later distributed (step 2) and forms the foundation for action based upon it (step 3). The intelligence pertains to customer needs and preferences including all factors with an ability to affect those, e.g. competition, regulation, technology or other environmental forces.[203] As customer needs are dynamic in nature and change over time it is important to focus not only on current but also on future (or latent) customer needs. The aim of successful market intelligence is to sense events and market trends ahead of competitors.[204]

The incorporation of factors influencing customer's needs and preferences acknowledges that these are not independent of environmental developments but rather are learned and shaped by the activities of players in the marketplace.[205] In that respect customer *and* competitor orientation[206] in intelligence generation as well as orientation towards other key stakeholders is crucial. It has been noted that the basis for market-driving behavior stems to a larger degree from "vision" as opposed to traditional market research.[207] However, because you can only lead the market where it wants to go[208] – i.e. in a direction that is in alignment with latent market needs and wants – it appears vital to collect market intelligence that unveils this direction. In this step, only limited differences between market-driving and market-driven behavior can be noted

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200 See Kohli and Jaworski (1990).
201 See Kohli and Jaworski (1990)
202 See e.g. Deshpandé et al. (1993); Kohli and Jaworski (1990); Narver and Slater (1990); Shapiro (1988).
203 See Kohli and Jaworski (1990), p. 4.
204 See Day (1994), pp. 43f.
205 See Carpenter et al. (1997), Chapter 5.
206 See Narver and Slater (1990).
207 See Kumar et al. (2000), p. 131.
208 See Day (1999), p. 12.

as both behaviors require a deep understanding of current and potential future market dynamics.[209]

Intelligence dissemination: The collected market intelligence is in a second step distributed within the organization in order to create a common understanding and shared foundation of knowledge on which actions can be based. The dissemination therein takes places from the intelligence generating department to the other departments for which this information is relevant and can be transmitted via formal as well as informal channels.[210] There is also potentially further intelligence generation involved in this step as different departments might attach different interpretations to certain information made available to them. It can therefore be assumed there is a recurring feedback loop between steps one and two until a stable body of information and resulting interpretation has been generated and is shared throughout the organization.[211] As the importance of intelligence dissemination and inter-functional coordination has been widely acknowledged for market-driving behavior as well as market-driven behavior there should not be huge differences between the two concepts in this step either.[212]

Coordinated response[213]: The third step is the coordination of all necessary business functions to respond to the market intelligence at hand. Company resources are assembled to attend to customer needs and create value for the customer. In order to foster coordination between departments it is helpful to align cross-functional incentives and create mutual dependencies.[214]

The response can be reactive or proactive in nature. A *reactive response* considers market structure and customer preferences as given and adapts to them. A *proactive response* tries to influence these factors to enhance the competitive position of the

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[209] See Day (1994); Day (1999); Jaworski and Kohli (1996); Jaworski et al. (2000).
[210] See Kohli and Jaworski (1990), p. 5.
[211] Slater and Narver (1995) explicitly add a step they call "shared interpretation" as a part of organizational learning which they parallel with market orientation.
[212] See Kohli and Jaworski (1990); Jaworski and Kohli (1996); Day (1994).
[213] In the original article by Kohli and Jaworski (1990) this step is termed "responsiveness". However, their article as well as the further development of the literature (e.g. Narver and Slater (1990), Deshpandé et al. (1993)) point to the importance of the coordination of the response for it to be most effective. Following both terminologies will be used interchangeably.
[214] See Narver and Slater (1990), p. 22.

company.[215] The reactive response is the typical response of a firm that exhibits a market-driven behavior. A market-driving firm in contrast will try to implement a proactive response. Hence it is in this step that market-driving behavior most differs from market-driven behavior.

In summary, the two relevant dimensions to differentiate market oriented behaviors are information generation and responsiveness because there is hardly any difference between the behaviors regarding information dissemination. Figure 3 provides a framework which summarizes the discussion above and shows the whole spectrum of market oriented behaviors as it is currently understood.

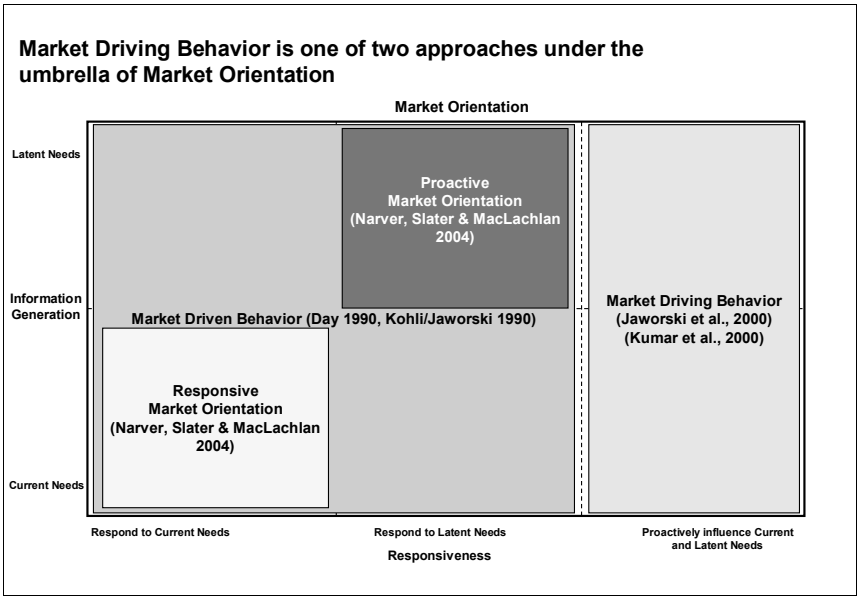

Figure 3: Market-driven behavior vs. Market-driving behavior

[215] See Jaworski et al. (2000), pp. 45ff.

2.5 Market-driving vs. market-driven behavior: the theoretical groundwork

This chapter is dedicated to introduce the theoretical grounding of this thesis. It will begin with discussing the relationship between market-driving behavior and market-driven behavior. In order to do so, a process and a timing perspective will be discussed. The process perspective – borrowing from market orientation theory – will emphasize the commonality of the two behaviors. The timing perspective will argue that the two behaviors are indeed complimentary in nature. Parallels to the theory of ambidexterity will be drawn. A strategic management perspective will introduce the "Environment-Strategy-Performance" paradigm which establishes that the relationship between market-driving (or market-driven) behavior and its outcomes is dependent on environmental conditions.[216] The elements of a market-driving behavior will be derived from the stakeholder theory. It will be noted that the capacity to be market-driving is dependent upon the company's resource endowment (as the literature on the resource-based view of the firm[217] would suggest) but further discussion of the antecedents are explicitly taken out of the scope of this work.

In order for the theoretical discussion to be meaningful and instructive it should be able to answer the basic questions of who, what, when, where, why and how.[218] "Who" engages in market-driving behavior refers to the research object – emerging firms – which has been described in Chapter 2.1. The "what" refers to the phenomenon to be researched: market-driving behavior. It has been conceptually introduced in Chapter 2.3 and a process perspective will be added in Chapter 2.5.1. "When" market-driving behavior is beneficial can best be evaluated in comparison with an alternative (i.e. market-driven) behavior. The market orientation literature (see previous chapter) provides the theoretical foundation for this timing perspective which will be expanded in Chapter 2.5.2. "Why" asks for the research rationale – in this study the notion that market-driving behavior can create a competitive advantage and thus influence firm performance. This question is best addressed from a strategic management perspective which draws on the literature about the RBV. It will be presented in Chapter 2.5.3.

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[216] The "Environment-Strategy-Performance" paradigm can be interpreted as a special case of the contingency approach which states that there are no overall more beneficial strategies in management but rather that the ideal strategy is context-dependent; See e.g. Zeithaml et al. (1988); In the German literature a popular representative of this view which is called "Situativer Ansatz" is Kieser; See e.g. Kieser (2002).

[217] See Wernerfelt (1984); Barney (1991).

[218] See Bedford (1969), p. 14.

"Where" is concerned with the research contingencies – i.e. under what circumstances market-driving behavior works or does not work. This environmental perspective will also be addressed in Chapter 2.5.3 and has its foundation in the contingency theory literature. Finally, "how" refers to the implementation of market-driving behavior and thus defines the research design. It will be based on the stakeholder theory and elaborated in Chapter 2.5.4. Figure 4 visualizes the logic of the following theoretical discourse.

Theoretical perspectives on market-driving behavior

Question:	WHO? Research object	WHAT? Research phenomenon	WHEN? Research time frame	WHY? Research rationale	WHERE? Research contingencies	HOW? Research design
Content:	• Emerging firms	• Market-driving behavior	• MDB vs. alternative behavior	• Superior firm performance • Competitive advantage	• Moderators of MDB – performance relationship	• Influence market entities
Theoretical foundation:	• Entrepreneur-ship theory	• Market orientation	• Market orientation	• RBV	• Contingency theory	• Stakeholder theory
Perspective:	• -	• Conceptual perspective • Process perspective	• Timing perspective	• Strategy perspective	• Environ-mental perspective	• Stakeholder perspective
Chapter:	• 2.1	• 2.3 • 2.5.1	• 2.5.2	• 2.5.3	• 2.5.3	• 2.5.4

Figure 4: Content of theoretical foundation section

2.5.1 Market-driving vs. market-driven behavior: a process perspective

As has been established in Chapter 2.2 a market oriented behavior is basically a process in which information about key market constituents is generated, this information is disseminated and developed into a common understanding within the company and a response in terms of actions is implemented. This process is visualized in Figure 5.

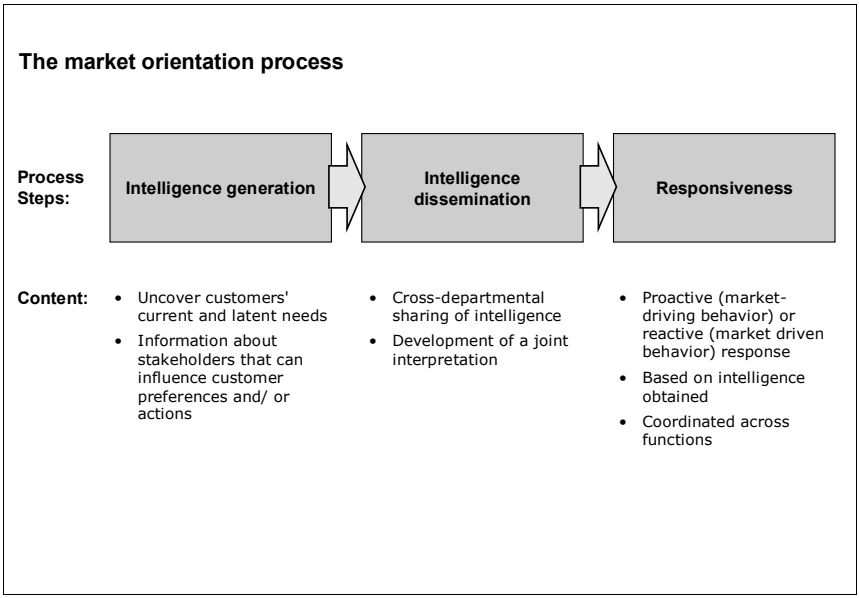

Figure 5: Market orientation process

This basic process holds true for both market-driven and market-driving behavior.[219] The key differences which are located in the response step have been shown in Figure 3 in Chapter 2.4. However, the commonalities of both behaviors are of equal importance. It can therefore be hypothesized that market-driven and market-driving behavior will share a similar set of antecedents – albeit the specifications of the antecedent parameters which lead to a more pronounced market-driven vs. market-driving behavior might diverge.

2.5.2 Market-driving vs. market-driven behavior: a timing perspective

A very central question in the area of market orientation is the question whether market-driving behavior and market-driven behavior are competing approaches or whether they are complementing each other. The early conceptual works on market-driving behavior emphasized how it is different from market-driven behavior. By using best practice examples of companies they identified as market drivers (e.g.

[219] See discussion in Chapters 2.3 and 2.4.

IKEA, Dell, Southwest Airlines) the impression is given that market-driving behavior is superior to market-driven behavior. Hamel announces that "Corporations around the world are reaching the limits of incrementalism"[220] and that never before the environment has been "more hospitable to industry revolutionaries"[221]. Sheth & Sisodia voice the opinion that "[c]ompetitive advantage, therefore, results from the ability to **shape** [emphasis added] buyer perceptions, preferences, and decision making".[222]

The majority of authors, however, stresses that the two behaviors are complementary. Jaworski et al. for example suggest "that there are two complimentary approaches to market orientation—a market-driven and a driving-markets approach."[223] Likewise Kumar et al. state that "Incumbent firms should devote the overwhelming majority of their innovation efforts to market-driven activities, such as incremental innovation and traditional market research. Nevertheless, some room must be found for radical business innovation or the market leader risks being leap-frogged and deposed by upstart market drivers."[224] And also Sheth & Sisodia conclude their argumentation by saying: "Firms that are able to sustain success over a long period of time therefore need to be market-driven and market driving simultaneously."[225]

As market-driven behavior has been closely associated with incremental innovation and market-driving behavior has been associated with radical innovation[226] this perspective is also supported by the argumentation that an ambidextrous organization[227] is required to ensure long term success for a company.[228] This is due to the fact that there is no single best way to manage a company, foster innovation or penetrate a market. Rather the best approach towards these topics depends on

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220 Hamel (1996), p. 69.
221 Hamel (1996), p. 70.
222 Sheth and Sisodia (1999), p. 81.
223 Jaworski et al. (2000), p. 45.
224 Kumar et al. (2000), p. 136.
225 Sheth and Sisodia (1999), p. 81.
226 See Kumar et al. (2000), p. 129.
227 See Tushman and O'Reilly III (1996); They define an ambidextrous organization as one that is "able to implement both incremental and revolutionary change"; Tushman and O'Reilly III (1996), p. 8.
228 See e.g. Benner and Tushman (2003).

situational factors. This notion has been advocated for established as well as emerging firms and is known as the "contingency approach".[229]

The next section will briefly introduce an integrated framework for market-driving behavior which resumes the argumentation of this section.

2.5.3 Market-driving behavior: a strategy perspective

Market-driving behavior can be interpreted as a **strategy**.[230] The understanding of strategy in this context is according to Chrisman who defines it as "[…] the fundamental characteristics of the match that an organization achieves among its skills and resources and the opportunities and threats in its external environment that enables it to achieve its goals and objectives".[231] Hence there has to be a "fit" between the resources a company possesses, its strategy and its environment. The better this fit is achieved the more likely the company is to realize its objectives. This paradigm which comes from the realm of strategic management has also been argued to be valid in the context of emerging firms.[232]

Resources are the basis for company activities and strategies.[233] The implementation of market-driving behavior – or the "capability for market-driving" – is thus also dependent on the resources that a company controls. In order for these resources to be the foundation for a sustained competitive advantage they need to be valuable, rare, imperfectly imitable and non-substitutable.[234] Resources in that context are defined broadly to include a company's physical capital resources (e.g. technology, plant and equipment, location or access to raw materials), human capital resources (e.g. the experience, insight, intelligence, judgement and relationships of managers and workers) and organizational capital resources (e.g. reporting structures, planning, controlling and coordination systems and relations between groups within the

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229 See Hofer (1975); Zeithaml et al. (1988); Noble et al. (2002), p. 37.

230 In subsequent discussions the terms "market-driving behavior" will be used to identify the entirety of possible market-driving strategies. A "market-driving strategy" is a particular specification of market-driving behavior based on the targeting of different market entities or stakeholder groups. A more detailed discussion can be found in Chapter 3.

231 Chrisman et al. (1988), p. 414.

232 See Chrisman et al. (1998), pp. 7ff.

233 See Wernerfelt (1984); Barney (1991).

234 See Barney (1991), pp. 106ff.

company and between the company and its environment).[235] The resource-based view of the firm would therefore be a formidable starting point to investigate the antecedents of market-driving behavior. However, this is not the focus of this work and therefore the topic will not be elaborated in more detail.

The focus of this work will be on the relationship between market-driving (and for comparison purposes market-driven) behavior, its outcomes in terms of company performance and how those outcomes are affected by the environment (see Figure 6).

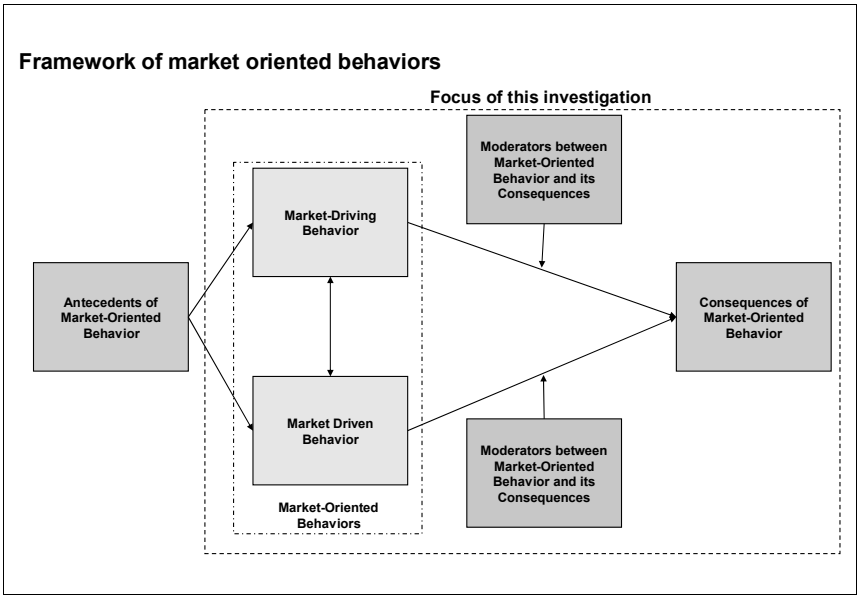

Figure 6: Focus of investigation

The elements of market driving behavior will be derived from stakeholder theory in the next section. The outcomes (or consequences) which market-driving behavior aims to achieve are sustainable competitive advantage and in the end superior company performance. These objectives are to be achieved by influencing the different

[235] See Barney (1991), p. 101.

stakeholder groups which constitute "the market". This has been termed "stakeholder management" by other authors.[236]

The concept of competitive advantage is well established in the literature and has been shown to be a precondition of superior performance.[237] For the superior performance to be enduring a "sustainable competitive advantage" is needed. Barney elaborates that a sustainable competitive advantage is given if a company "is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors *and* when these other firms are unable to duplicate the benefits of this strategy"[238]. The competitive advantage thus is sustainable if it is not neutralized by duplication attempts from competitors. Barney, however, points to the fact that even a sustainable competitive advantage does not "last forever". He elaborates that dramatic structural changes in an industry may redefine which resources serve as a basis for a sustainable competitive advantage. When these "Schumpeterian Shocks"[239] occur previously valuable resources might turn out to be weaknesses or just irrelevant under the new industry logic.[240] As market-driving behavior aims to fundamentally redefine the structure and/or behavior of market entities it can itself be the cause of these discontinuities. But these changes in the market structure should be in a direction that is beneficial for the market-driving company. Therefore, they are bound to create a sustainable competitive advantage for the focal firm but may destroy competitive advantages of competing firms.

The impact of strategy on corporate performance has been shown to depend on situational factors.[241] This has been discussed in great detail by a stream of literature under the headline of "contingency theory". Hofer stated: "Unless one is willing to admit the possibility that there exists some strategy or set of strategies which are optimal for all businesses […] no matter what their resources and no matter what environmental circumstances they face – an assumption that is inconsistent with all research studies on business […] strategy conducted to date – any theory of business

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[236] See Donaldson and Preston (1995), p. 71; Frooman (1999), p. 192; Jawahar and McLaughlin (2001), 398.
[237] See Porter (1980); Porter (1985); Barney (1991).
[238] Barney (1991), p. 102.
[239] See Barney (1986), p. 798.
[240] See Barney (1991), p. 103.
[241] See Hofer (1975); Miles and Snow (1984); Zeithaml et al. (1988); Kieser (2002).

[…] strategy must be a contingency theory."[242] Miles & Snow claim that "[s]uccessful organizations achieve strategic fit with their market environment and support their strategies with appropriately designed structures and management processes"[243]. As it is unlikely that market-driving strategies are different from other types of strategies in this respect it is reasonable to infer that a theory of market-driving behavior should be a contingency theory as well. For that reason several environmental variables will be considered in the theoretical discussions and empirical study.

A contingency approach usually differentiates three types of variables: contingency variables, response variables and performance variables.[244]

Contingency variables represent situational states typically outside the influence of a company or its managers. These variables have been developed in three major management sub-disciplines: organization theory, strategic management and organizational behavior. Due to the focus of this work consideration will predominantly be given to environmental contingency variables like market turbulence, technology turbulence, competitive intensity or regulation intensity.[245]

Response variables are the "organizational or managerial actions taken in response to current or anticipated contingency factors"[246], i.e. the implementation of a strategy. Market-driving behavior would be one such response variable.

Performance variables are the dependent measures of outcomes of the fit between contingency variables and response variables. These frequently include financial or subjective measures of company performance or competitive position.[247] Because contingency variables (i.e. environmental conditions) are in a constant flux, the fit "is a process as well as a state"[248]. This means that response variables (i.e. strategies) have to be constantly adapted to achieve the optimal value of the performance variables. The whole relationship is therefore dynamic rather than static.

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242 Hofer (1975), pp. 785f.
243 Miles and Snow (1984), p. 10.
244 See Zeithaml et al. (1988).
245 See Zeithaml et al. (1988), p. 40.
246 Zeithaml et al. (1988), p. 40.
247 See Zeithaml et al. (1988), p. 40.
248 Miles and Snow (1984), p. 11.

In this work hypotheses will be derived and the influence observed for various moderators (contingency variables) on the relationship between market-driving behavior (response variable) and company performance (performance variable). The contingency variables will be discussed in detail in Chapter 3.4.

A special case of contingency theory is the "Environment-Strategy-Performance"-Paradigm. It states that company success is a function of the interaction between environmental conditions and chosen strategy wherein the strategy has to be aligned with the environmental conditions in the form of a "fit" relationship.[249] Sandberg & Hofer transferred this paradigm to the context of new ventures and show that success in new ventures is contingent on these companies' strategies and environmental characteristics.[250] Sin et al. discussed the adequacy of the "Environment-Strategy-Performance"-Paradigm in the area of market orientation.[251] They argue that "[b]oth MO [market orientation] and RMO [relationship marketing orientation] are strategic orientations that a firm can adopt in various degrees, depending on the conditions in the firm's competitive environment" and that "depending on the characteristics of the competitive environment, a firm may experience different levels of performance that are contingent on its choice of the appropriate blend of MO [market orientation] and RMO [relationship marketing orientation]".[252] The authors find empirical support for their claims.[253] It can therefore be concluded that the chosen contingency approach to investigate market-driving behavior and strategies in emerging firms and its effects on business performance is appropriate.

After introducing the framework which will be the focus of the investigation different stakeholder groups at which market-driving behavior can be aimed will subsequently be derived.

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249 See McDaniel and Kolari (1987), p. 19; McKee et al. (1989), p. 22.
250 See Sandberg and Hofer (1987), pp. 7ff; Hofer and Sandberg (1987), p. 19.
251 See Sin et al. (2005), pp.36f.
252 Sin et al. (2005), p. 39.
253 See Sin et al. (2005), pp. 47ff.

2.5.4 Elements of market-driving behavior: a stakeholder perspective

The objective of market-driving behavior is to materially change the structure and/or behavior of market entities.[254] Hills et al. include customers, competitors, channels and regulators as market entities. They do not, however, provide a stringent logic for their choice other than stating that these "key market entities […] collectively represent a balance between being too narrow and too broad"[255]. Conceptually, market entities can be interpreted as stakeholder groups.[256] Thus market-driving means exerting influence over stakeholder groups.

The stakeholder theory is well established in the business literature[257] and seems to be a much more appropriate foundation on which to build a market-driving behavior concept because it is concerned with the relationships between a company and its stakeholders.[258] It can therefore explain how a company can influence or is influenced by these constituencies.[259] Stakeholder theory also offers insight how firms can devise stakeholder relationships that eventually generate positive performance outcomes.[260] Donaldson & Preston in their seminal article formulate four central theses about stakeholder theory:

1) Stakeholder theory is *descriptive* because it offers a model of the company
2) Stakeholder theory is *instrumental* because it serves as a framework that links stakeholder management practices to company performance outcomes
3) Stakeholder theory is *normative* because it identifies stakeholders by their interests in the firm which are considered intrinsically valuable
4) Stakeholder theory is *managerial* because it provides recommendations (e.g. about structures and practices for stakeholder management) that address all appropriate stakeholder groups.[261]

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254 See Hills et al. (forthcoming), p. 5.
255 Hills et al. (forthcoming), p. 7.
256 See Freeman (1984), p. 48.
257 For an overview of important contributions see Preston and Sapienza (1990), pp. 361ff; Donaldson and Preston (1995); Phillips et al. (2003).
258 See Freeman et al. (2004), p. 364; for an overview of suggestions regarding the nature of this relationship see Mitchell et al. (1997), pp. 860-862.
259 Berman et al. speak of a "two-way relationship between a firm […] and its stakeholders"; Berman et al. (1999), p. 491.
260 See Freeman et al. (2004), p. 364.
261 See Donaldson and Preston (1995), pp. 66f.

Especially the instrumental and managerial characteristics of stakeholder theory fit well with the research objectives of this thesis which aims to identify the addressees of market-driving behavior and how market-driving behavior can affect firm performance. Jawahar & McLaughlin further suggest that the importance of stakeholder groups will vary depending on a firm's life cycle stage and that a company will employ different strategies to deal with different stakeholder groups in each situation.[262] Because stakeholder theory can accommodate this differentiated approach it also possesses a good alignment with the contingency theory which was discussed previously. The authors support this by stating: "Our attempt to develop a descriptive stakeholder theory from the contingency perspective and stretch the bounds of current thinking on stakeholder management is the primary contribution of this article"[263].

Empirical evidence strengthens the argument of the suitability of stakeholder theory. Berman et al. found empirical support for a "strategic stakeholder management model"[264] which is based on the assumption that firms shape their relationships with stakeholder groups in order to enhance their financial performance.[265] Hence the positive impact on performance which is hypothesized for market-driving behavior can also be found in the stakeholder theory literature.

Because of its high suitability the stakeholder theory will be used as the theoretical basis for the development of a market-driving behavior construct. Although there is no generally accepted definition of which groups to include under the umbrella of stakeholders, the most often named ones are customers, competitors, channel partners (suppliers and distributors), regulators, employees, shareholders and communities.[266] Brandenburger & Nalebuff introduced the "value net" concept to describe which stakeholders have a significant impact on a company's value creation process and the nature of the interdependencies between those stakeholder groups. Their groups are customers, suppliers, substitutors and complementors.[267] Customers and suppliers are the ones with whom the company conducts transactions: exchange money against goods & services with the suppliers and exchange goods & services against money

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262 See Jawahar and McLaughlin (2001), p. 410.
263 Jawahar and McLaughlin (2001), p. 412.
264 See Berman et al. (1999), pp. 491f.
265 See Berman et al. (1999), pp. 501ff.
266 See e.g. Preston and Sapienza (1990), p. 368; Donaldson and Preston (1995), p. 69; Posner and Schmidt (1984), p. 206; Phillips et al. (2003), p. 489; Freeman et al. (2004), p. 366.
267 See Brandenburger and Nalebuff (1995), pp. 59f.

with the customers. Substitutors are the ones that complicate the task of obtaining suppliers and customers (e.g. competitors) while complementors facilitate this task.[268] Stakeholders can occupy multiple roles in this framework, e.g. being complementors with regard to suppliers and substitutors with regard to customers.[269]

Another distinction that has been suggested is between normative stakeholders and derivative stakeholders. Normative stakeholders are the constituency groups to whom the company has a direct moral obligation. These include financiers, customers, employees, suppliers and local communities. Derivative stakeholders are those with the capacity to affect the organization positively or negatively but to whom the company has no direct moral obligations. These include e.g. competitors, activists and the media.[270] Both normative and derivative stakeholders have to be considered in the context of market orientation as it is focused on normative stakeholders but also "forces affecting them"[271]. This is also in line with the more general definition of stakeholders as ""those groups without whose support the organization would cease to exist"[272] provided by the Stanford Research Institute (SRI). Each of these groups will be briefly discussed.

Although **shareholders** have been given particular consideration in the stakeholder literature and the importance of this group has been emphasized there is no universal hierarchy among stakeholder groups.[273] Shareholders as the providers of capital clearly play an important role.

Customers are a vital group if one looks at stakeholders from a market-orientation perspective. Customers are the very focus of market-oriented behavior and their importance to the company and thus as a stakeholder group is common sense in the marketing literature.

Competitors are an equally important group because their actions have direct impact on the focal company and potentially on other stakeholder groups. Although

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[268] See Cummings and Doh (2000), p. 85.
[269] See Brandenburger and Nalebuff (1995), pp. 60ff.
[270] See Phillips (2003), p. 489.
[271] See Jaworski and Kohli (1996), p. 131.
[272] SRI (1963) cited in Freemann (1984), p. 31.
[273] See Donaldson and Preston (1995), p. 68; Phillips (2003), p. 496.

competitors do not have a "stake" in the company – and have therefore been argued not to be stakeholders in the original sense of the concept[274] – they nevertheless are derivative stakeholders. They are also well-established as being on of the foci of market orientation.[275]

Distribution channels in many cases hold a critical position because they form the link between the company and its customers. This might be less the case for certain direct marketing business models but for a large part of businesses definitely holds true. In the age of globalization and outsourcing, suppliers are also continuously gaining importance. The management of the whole value chain from suppliers to distributors has consequently attracted much attention in recent years and the term SCM (supply chain management) has been used to describe the associated activities and management issues which have been researched in great depth.[276] Therefore suppliers and distributors – or more generally value chain partners – can rightly be considered another major stakeholder group.

In the stakeholder literature **communities** are also frequently discussed as an important stakeholder group. From a market orientation perspective, however, this group is not homogenous. Rather communities are composed of members from other stakeholder groups such as customers (in the case of "normal" citizens), regulators (in the case of local governments) or employees (in the case of citizens who are at the same time employees).[277] Also, the theoretical discussion about communities as stakeholders has been more controversial and the empirical findings about the influence of communities have been less conclusive.[278] It therefore appears appropriate to not include communities as a separate stakeholder group for the concept of market-driving behavior and rather focus on the more homogenous groups they are composed of.

Regulators are one such group. They have an extensive influence on market conditions because they provide (and can alter) the context in which business

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274 See Donaldson and Preston (1995), p. 86.
275 See Narver and Slater (1990).
276 On the topic of supply chain management see e.g. Christopher (1998); Handfield and Nichols (1999).
277 This example also illustrates that a particular individual can be part of multiple stakeholder groups.
278 See Phillips et al. (2003), p. 496.

transactions are conducted.[279] They also affect other key stakeholder groups such as customers (e.g. in the case of prohibiting certain products or promoting others), competitors (e.g. by introducing antitrust regulation) or employees (e.g. via labor laws).

A further stakeholder group can be described as **multipliers**. It includes the stakeholders who are not direct market constituency groups but who still possess the capacity to influence the company or other market stakeholders and act as supporters (in the positive case) or opponents (in the negative case) by disseminating information or providing resources for the focal company.[280] Typical examples for multipliers are the media, financial and educational institutions and business partners.

Employees have also empirically been confirmed to be key stakeholders.[281] Furthermore their impact as a stakeholder group on corporate business performance as well as the correlation with other stakeholder groups' goals has been shown.[282] Therefore – and hereby expanding the constituency groups suggested by Hills et al. (forthcoming) – it seems important to include them in a concept of market-driving behavior as well.

Concluding this chapter it can be established that the stakeholder concept is an appropriate theoretical basis from which to derive the relevant market entities that are targeted by market-driving behavior. A broad stakeholder definition that includes normative and derivative stakeholders appears most suitable in this context. The specific stakeholder groups have been identified and their appropriateness for a concept of market-driving behavior has been discussed.

Chapter 3 will discuss the concept of market-driving behavior in emerging firms at a greater level of detail and will derive hypotheses for the empirical part of this thesis. The structural model to be tested will be introduced.

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279 See e.g. Stigler (1971), p. 3.

280 Donaldson & Preston advocate a clear distinction between "stakeholders" and "influencers"; Donaldson and Preston (1995), p. 86. But the broader categorization of derivative stakeholders presented above is essentially equal to these influencers. Therefore they are included as stakeholders.

281 See Posner and Schmidt (1984), p. 206; Berman et al. (1999), pp. 501f.

282 See Preston and Sapienza (1990), p. 370.

3. Conceptualization of market-driving behavior in emerging firms

Transferring the concept of market-driving behavior to a new venture context is an interesting task given that there is no such research available to date. The starting point for this effort is the current understanding of market-driving behavior in established companies as has been described in Chapter 2.3. In the following section some connections between market-driving behavior and emerging firms that can be found in the extant literature will be briefly reviewed. After that the key dimensions of market-driving behavior in emerging firms will be introduced and their hypothesized impact elaborated. The performance implications of market-driving behavior in emerging firms will be discussed in Chapter 3.3. The influence of a number of environmental contingency variables upon the market-driving behavior – performance relationship will be debated in Chapter 3.4 and hypotheses for the advantageousness of market-driving vs. market-driven strategies in different environmental settings will be formulated. Finally (in Chapter 3.5) the structural model will be introduced which – in analogy to theory development in the area of market-driven behavior – will show a comprehensive picture of market-driving behavior including its elements and consequences.

3.1 A brief review of the existing literature on market-driving behavior in emerging firms

By studying market-driving behavior in emerging firms this thesis makes a contribution to advance the understanding of the generally under-researched area of organizational abilities to exert market influence, develop new industries and transform existing ones.[283] The idea of market-driving, emerging firms which change the rules of the game can be linked to the Schumpeterian notion of "creative destruction" which he sees as the basis of economic development.[284] By introducing a radical innovation (e.g. in the form of a unique business system[285]) these market-

[283] See Prahalad (1995).

[284] "Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary. The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates. This process of *Creative Destruction* [emphasis added] is the essential fact about capitalism."; Schumpeter (1950), pp. 82f; see also Schumpeter (1934).

[285] See Kumar et al. (2000).

driving companies achieve a leap in customer value[286] and leapfrog their established competitors who are often captured in an "innovator's dilemma"[287] and unable to fight back. Market-driving behavior is necessary because of the notable inability of customers to foresee the future.[288] At the same time markets get increasingly hyper-competitive requiring firms to adopt a proactive strategy of disrupting the market themselves before competitors can do so.[289]

The relevance of market-driving behavior particularly in emerging firms is two-fold. On the one hand, market-driving behavior has been shown in the previous chapter to meet the criteria for being a strategy which is adapted to an environmental context in order to optimize performance outcomes. Recent entrepreneurship and strategic management literature has argued in favor of a tighter integration of the two fields because "they both are focused on how firms adapt to environmental change and exploit opportunities created by uncertainties and discontinuities in the creation of wealth"[290].[291] Sarasvathy likewise suggests shifting the focus of entrepreneurial research towards the interface between inner and outer environment[292] – i.e. between resources and environmental conditions. Strategy is this interface. Market-driving behavior uses a company's resources to shape its environment with the ultimate goal of achieving competitive advantage and superior performance. As such it is highly relevant to address the suggestions stated above.

On the other hand the literature increasingly acknowledges the value of an entrepreneurial orientation for business success especially in more dynamic and competitive environments.[293] This has also been empirically proven for emerging firms.[294] This entrepreneurial orientation is composed of five major dimensions: autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness.[295] Autonomy refers to individuals or teams who independently

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286 See Kumar et al. (2000)
287 See Christensen (1997).
288 See Hamel and Prahalad (1994).
289 See D'Aveni (1994).
290 Hitt et al. (2001), p. 480.
291 See e.g. McGrath and MacMillan (2000).
292 See Sarasvathy (2004), pp. 713ff.
293 See Miller (1983), p. 775; also Lumpkin and Dess (1996), pp. 135ff.
294 See Covin and Slevin (1989), pp. 80ff.
295 See Lumpkin and Dess (1996), p. 149.

develop and implement an idea or vision.[296] Similarly visionaries are often leading firms that develop and carry out market-driving strategies.[297] Innovativeness circumscribes supporting and implementing novel ideas that can lead to new products or processes.[298] Likewise market-driving firms develop unique (thus innovative) business systems to deliver superior value propositions which were not available before.[299] Risk taking is also reflected in market-driving behavior as "[m]arket driving strategies entail high risk"[300]. Proactiveness is about taking initiative and shaping the environment rather than reacting to it.[301] This is precisely what market-driving behavior aims to do. Finally, competitive aggressiveness denotes a firm's tendency to directly and intensely challenge its competitors. Whereas market-driving behavior also serves to challenge competitors it aims to influence their behavior rather than compete head-on with them. Lumpkin & Dess propose that not all dimensions need to be equally present for a company to have an entrepreneurial orientation. Rather the strength of each of those dimensions will be depending on the specific environmental context.[302]

In summary, it appears that a market-driving behavior can be considered "entrepreneurially oriented". On the other hand, an entrepreneurial orientation can be characterized as "market-driving" only if it is focused on market constituencies. Market-driving behavior is in other words a special case of entrepreneurial orientation. Apart from the "how to act" market-driving behavior also answers the question "towards whom to act". Empirical validation for this perspective was provided by Becherer & Maurer who confirmed a positive relationship between market orientation and entrepreneurial orientation for a sample of emerging firms.[303] Tzokas et al. found that those small firms that scored high for both market and entrepreneurial orientation achieved the best performance.[304] Hence market-driving behavior – which integrates elements from both concepts – is probably a potent strategic posture to enhance performance in emerging firms.

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296 See Lumpkin and Dess (1996), p. 140.
297 See Kumar et al. (2000), p. 130.
298 See Lumpkin and Dess (1996), p. 142.
299 See Kumar et al. (2000), p. 131.
300 Kumar et al. (2000), p. 129.
301 See Lumpkin and Dess (1996), p. 146.
302 See Lumpkin and Dess (1996), p. 137.
303 See Becherer and Maurer (1997), p. 52.
304 See Tzokas et al. (2001), pp. 31f

Furthermore the market-driving behavior process has its equivalent in the entrepreneurial process. The entrepreneurial process encompasses the steps of cognition, discovery, understanding market opportunities, and coordinate resources to seize the opportunity.[305] These steps are congruent with the intelligence generation, intelligence dissemination and responsiveness steps of market-driving behavior.

Hence market-driving behavior possesses characteristics and familiarities with other concepts that make an important impact on the performance of emerging firms appear likely. After establishing the importance of the construct for emerging firms, attention will now turn to a more in-depth discussion of the inner workings of market-driving behavior.

3.2 Elements of market-driving behavior in emerging firms

Whereas market-driven behavior (see chapter 2.4) always acts under the premise of stable market structure and customer preferences (even if they might be latent rather than expressed) market-driving behavior does not take these factors for granted. It rather seeks to influence them in a direction that is beneficial for the company.[306] This influence is exerted via a "driving" of relevant stakeholder groups. This is also the logic followed by Hills et al. in their scale for measuring market-driving behavior.[307]

The selection of the stakeholder groups to include under the umbrella of market-driving behavior is an important consideration which should be given intensive thought because by choosing a too narrow definition one risks excluding key aspects and possible options for market-driving strategies while a too extensive definition would sacrifice clarity and make the concept more difficult to handle. Starting with the classification of Hills et al. and reviewing the stakeholder theory literature a list of six groups considered crucial for a concept of market-driving behavior was compiled: customers, competitors, channels, regulators, multipliers, and employees.[308] By influencing these stakeholder groups eventually the market itself is influenced. The respective market-driving behavior towards each of those groups – customer-driving

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[305] See Alvarez and Busenitz (2001).

[306] It is important to note that already the behavior that seeks advantage for the company and not only the behavior that achieves this goal is considered "market-driving" – a notion that the author supports.

[307] See Hills et al. (2005); also Hills and Bartkus (2007).

[308] See Chapter 2.5.3 for the discussion on what stakeholder groups to include.

behavior, competitor-driving behavior, channel-driving behavior, regulator-driving behavior, multiplier-driving behavior, and employee-driving behavior – will subsequently be further analyzed with regard to their appropriateness in the context of emerging firms and their likely impact on overall market-driving behavior and performance.

3.2.1 Customer-driving behavior

Customers are a fundamental stakeholder group and the nucleus of market-oriented behavior. Both Kohli & Jaworski and Narver & Slater included an orientation towards customers in their market orientation concepts.[309] Carpenter et al. discussed the possibility for companies to shape customer preferences.[310] Narver et al. elaborate the concept of proactive market orientation which is geared towards satisfying customers' latent rather than just their expressed needs.[311] Hills et al. include customer-driving behavior as one of the constructs of their market-driving behavior concept and define it as "the extent to which a firm engages in behaviors intended to fundamentally change the behaviors of customers"[312].

Jaworski et al. specify that customers can be influenced either directly or indirectly via an alteration of their preference and value systems.[313] In the former case companies seek to build or remove customer constraints (e.g. in the shopping experience) in order to directly affect the behaviors that customers exhibit. A well-documented example is the guiding system used by IKEA to steer people through its large furniture outlets. With bright markers and a "red line" running through the stores customers are encouraged to follow a pre-determined path passing all displays in the process. Store layouts which make entries and exits virtually invisible once you entered the showroom enhance the maze-like character and enforce compliance with the guiding

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309 See Kohli and Jaworski (1990); Narver and Slater (1990).
310 See Carpenter et al. (1997).
311 See Narver et al. (2004).
312 Hills et al. (forthcoming); similarly Hills and Bartkus (2007) see customer-driving behavior as an essential part of market-driving behavior and define it as "the degree to which a firm engages in activities that are designed to fundamentally change the preferences and values of customers" (p. 147) – however, the author of this study sees the change of preferences and values only as an intermediary step to ultimately changing customer behavior and therefore considers the former definition as more appropriate and in line with the prior literature on market-driving behavior.
313 See Jaworski et al. (2000), pp. 52f.

systems as customers otherwise easily get a feeling of being lost.[314] Another example is the use of bulk size packaging and pricing for consumer goods. By conveniently packing together larger quantities of the same product and offering a discount on these packages customers are frequently convinced to buy a quantity of a product in excess of their original need.

In the latter case customers are influenced indirectly by changing the preferences and values which are underlying their behavior. This is done by either creating new customer preferences or reversing existing ones.[315] As preferences only change gradually over time this influence works in the medium to long-term as opposed to direct customer influence which affects behavior more immediately. Examples for this type of influence are The Body Shop or Starbucks. The Body Shop successfully changed customer perceptions about what to look for in cosmetics from scientific breakthrough and a glamorous image conveyed through expensive advertising with top models and celebrities to natural ingredients and a healthy image for the average person.[316] Starbucks succeeded in making customers value the sophistication of different coffee roasts and preparations paired with the special atmosphere that is created in its coffee houses where before customers had not placed much importance on those attributes.

Kumar et al. propose that in order to change customer preferences, companies need to offer superior value to them. This "leap in customer value" is achieved when companies provide significantly more benefits while reducing the costs and sacrifices that need to be incurred in order to receive those benefits.[317]

Especially for emerging firms and in new industries legitimacy is a key quality a business intends to achieve among its customers.[318] Suchman defines legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions"[319]. Legitimacy has a significant influence on key stakeholders' support of

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314 See Jaworski et al. (2000), p. 52.
315 See Jaworski et al. (2000), pp. 52f.
316 See Jaworski et al. (2000), p. 53.
317 See Kumar et al. (2000), p. 130.
318 See Aldrich and Fiol (1994); Suchman (1995); Zimmerman and Zeitz (2002).
319 See Suchman (1995), p. 574.

an emerging firm.[320] And it can serve to overcome the "liability of newness"[321].[322] To gain legitimacy companies need to either adapt to their environment, choose a suitable environment that will support their actions or manipulate their environment.[323]

Appreciating the discussion above important aspects for a construct of customer-driving behavior can be found in the areas of customer preferences, customer value creation and legitimacy creation among customers.

For emerging firms building an initial customer base is a question of survival. Often there are only few customers in the beginning and the behavior of each one of them is vital for the well-being of the company. It is therefore safe to assume that as customers are equally or more important in emerging firms than they are in established companies that customer-driving behavior will likewise be equally or more important in emerging firms. Customer-driving behavior will therefore be included in the market-driving behavior concept.

3.2.2 Competitor-driving behavior

Influencing competitors is another central element of market-driving behavior. Competitor-driving strategies aim to change competitor behavior in a way that provides an advantage to the competitor-driving firm. Different angles can serve as starting-points for influencing competitor behavior.

Jaworski et al. discuss deconstruction, construction and functional modification as a first set of approaches for competitor-driving behavior. Deconstruction of competitors refers to eliminating competitors via joint-ventures, mergers, acquisitions and similar strategic moves. Construction and functional modification aims to add players to the value chain and change players' function in the value chain, respectively.[324]

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320 See Aldrich and Fiol (1994), p. 645.
321 See Stinchcombe (1965), p. 148.
322 See Suchman (1995), p. 586.
323 See Suchman (1995), p. 587.
324 See Jaworski et al. (2000), pp. 48ff.

A second set of actions is directed to build competitor constraints or remove constraints erected by competitors. These approaches can be defined as direct competitor-driving behavior.[325]

A final set of more indirect approaches tries to create new or reverse existing competitor preferences. A prominent example of this type of strategy is signaling.[326] By publicly and credibly stating the intention for a particular strategic move competitors are led to change their behavior in reaction to the anticipated move of the focal firm.

In an increasingly competitive environment this type of behavior is essential because competitive advantage is only achievable during a limited amount of time requiring companies to constantly disrupt their industries themselves before other competitors do.[327] Also, for emerging firms a certain degree of competitive aggressiveness which underlies competitor-driving behavior has been argued to enhance performance.[328]

Hills et al. define competitor-driving behavior as "the extent to which a firm engages in behaviors intended to fundamentally change the structure and/or behavior of competitors"[329]. This definition is adopted and competitor-driving behavior included in the market-driving behavior concept.

3.2.3 Channel-driving behavior

Channel partners are another vital stakeholder group. Kumar et al. point out that introducing new channels itself represents fundamental change and additionally can lead to derivative change when existing channel members adjust to the newly created channels.[330] Jaworski et al. elaborate that channel-driving behavior can take place directly or indirectly by changing customer behavior which eventually leads to the obsolescence of certain channel members. The examples provided hold evidence that the different elements of market-driving behavior are linked to each other. Further, channel-driving behavior can follow a deconstruction, construction or functional

[325] See Jaworski et al. (2000), p. 52.
[326] See Jaworski et al. (2000), p. 53.
[327] See D'Aveni (1994).
[328] See Lumpkin and Dess (1996), pp. 148f.
[329] Hills et al. (forthcoming); similar Hills and Bartkus (2007), p. 147.
[330] See Kumar et al. (2000), p. 134.

modification logic which seeks to eliminate players, add players or modify the tasks performed by certain players in the value chain, respectively.[331]

As winning customers is especially crucial for emerging firms, the channels to reach them are clearly of high importance to those firms. Also because emerging firms usually do not have a historical legacy[332] with regard to their distribution system they can draw on a wider range of options in this area. It is therefore safe to assume that channel-driving behavior should be equally or even more important in emerging firms than it is in established companies.

Hill et al. define channel-driving behavior as "the extent to which a firm engages in behaviors intended to fundamentally change the structure and/or behavior of channel members"[333]. The author of this thesis shares this view and will include channel-driving behavior in his concept of market-driving behavior. Suppliers – which some stakeholder classifications discuss as a separate group – are subsumed under the channel definition. This is in line with the empirical examples chosen by Kumar et al. and Jaworski et al.[334]

3.2.4 Regulator-driving behavior

The impact of regulators on the business environment for companies and entire industries is a well-known fact. Stigler wrote in his seminal work on economic regulation: "The state—the machinery and power of the state—is a potential resource or threat to every industry in the society. With its power to prohibit or compel, to take or give money, the state can and does selectively help or hurt a vast number of industries."[335] Kohli & Jaworski discuss intelligence generation and responsiveness to government regulation as part of their concept of market orientation.[336] Morgan & Hunt identify government as a key stakeholder of companies.[337] Vining et al. introduce government as a sixth force that influences the other components of Porter's Five

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331 See Jaworski et al. (2000), pp. 48ff.
332 This historical legacy has been shown to be a potent impediment to change in established corporations especially when impetus from customers was lacking; see e.g. Christensen and Bower (1996), p. 215.
333 Hills et al. (forthcoming).
334 See Kumar et al. (2000), p. 134; Jaworski et al. (2000), p. 48.
335 Stigler (1971), p. 3.
336 See Kohli and Jaworski (1990), pp. 4ff.
337 See Morgan and Hunt (1994), p. 21.

Forces model. They also underline the importance of regulator-driving strategies by observing that "[i]n many circumstances, political strategy can be as important as competitive (market) strategy and is often required to complement it"[338].

Keim suggested that in the face of falling turnout rates in elections – which he attributes to rising costs of political information to individuals – organized interest groups can increase their influence on political results.[339] If this observation holds true then regulator-driving behavior would likewise become more effective. Hillman et al. explicitly acknowledge the possibility of regulator-driving behavior when they state that "[a] common misperception is that the public policy arena is largely exogenous and that firms must simply react to policy decisions. Instead, the public policy process in every non-totalitarian system in the world is based on interest aggregation which creates opportunities for firms, just like other interest groups, to shape public policy."[340]

Interactions between companies and regulators occur in three broad areas of regulation: antitrust regulation, economic (industry-specific) regulation, and social regulation.[341] The main benefits a company seeks by influencing regulators are direct subsidies, control over new rival entry into their industries, control over substitutes and complements, and price-fixing.[342] These objectives are prerequisites to gain competitive advantage, increase chances of survival, and achieve superior company performance – outcomes that have been associated with regulator-driving behavior.[343]

Strategies for exercising this influence include constituency building, political action committee contributions, advocacy advertising, lobbying, and coalition building.[344] Constituency building refers to efforts by a company to identify, educate and animate to political action those individuals affected by public policies that impact business conditions for the focal firm. Political action committees raise funds from employees or in some cases shareholders of a company that are used to support candidates or political campaigns thought to be most beneficial to the political positions of the

338 Vining et al. (2005), pp. 153ff.
339 See Keim (1981), p. 43.
340 Hillman et al. (1999), p. 68.
341 See Hillman et al. (1999), p. 67.
342 See Stigler (1971), p. 4ff.
343 See Sadrieh and Annavarjula (2005), p. 179; Lord (2003), p. 112; Hillman et al. (1999), pp. 79f.
344 See Keim and Zeithaml (1986), p. 829.

company. Advocacy advertising is directed to a general audience and conveys a political message on a particular issue. Lobbying describes efforts of specialized professionals or company executives to establish communication with, monitor legislation from, provide information to, and influence the decisions of regulatory bodies, legislators and their staff. Coalition building is concerned with finding other groups or individuals with whom the company shares a common political interest and forming an alliance with them.[345] Constituency building has been argued to be the most effective of these strategies.[346]

Hillman (citing Olson, 1965) pointed out, however, that regulator-driving behavior in many instances leads to collective benefits (i.e. benefits shared by several players or a whole industry) and only sometimes to selective benefits (i.e. benefits proprietary to the regulator-driving company) which makes the measurement of the performance implications of such actions more difficult.[347]

Even though regulator-driving has mostly been studied in the context of large corporations, there is increasing evidence that it is also relevant to emerging firms. Drope & Hansen find empirical support for the claim that differences between larger and smaller firms in the area of corporate political activity are "limited". Their results show that larger companies – as would be expected – spend more money on these activities. But this is also due to the fact that large companies operate on a national scale while smaller companies tend to focus their activities on a regional or local level.[348]

This work will define regulator-driving behavior in the sense of Hills et al. who describe it as "the extent to which a firm engages in behaviors intended to fundamentally change the behaviors of government and/or industry regulators"[349].

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345 See Keim (1981); Keim and Zeithaml (1986), pp. 829f.
346 See Lord (2003), p. 112.
347 See Hillman et al. (1999), p. 70.
348 See Drope and Hansen (2006), pp. 13f.
349 Hills et al. (forthcoming).

3.2.5 Multiplier-driving behavior

Apart from the main stakeholders such as customers, competitors, channel partners, regulators, and employees there are several other groups discussed in the literature which can influence a company by providing it with resources, e.g. investors (financial resources), the media (awareness and reputation resources), alliance partners (technological or distribution resources), and educational institutions (knowledge resources). These groups can be summarized as "multipliers" of the focal firm as they multiply the firm's activities towards other stakeholder groups such as customers or competitors. These multipliers are of particular value for emerging firms who themselves usually possess very limited resources.[350]

An important function of multiplier-driving behavior in emerging firms lies in its ability to create legitimacy for the new business. Aldrich & Fiol found that "[i]ndustries in which founding firms promote their new activity through third-party actors will gain cognitive legitimacy more quickly than others"[351]. Stuart et al. empirically prove that emerging firms that have associations with prominent partners perform better than similar ventures that lack those associations.[352] These alliances increase the emerging firm's reputation and additionally provide access to resources like technological know-how and new customers.[353] Sarkar et al. report that knowledge of and proactiveness in the establishment of alliances are resources. They find that firms with higher alliance proactiveness achieve better financial performance.[354] This relationship is especially strong in smaller companies and in firms operating in dynamic markets.[355]

Because of its importance to emerging firms, multiplier-driving behavior will be included in the market-driving behavior concept and defined as *the extent to which a firm engages in behaviors intended to fundamentally change the behaviors of multipliers*.

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[350] See Tarnovskaya et al. (2005), p. 7; Starr & MacMillan extensively discuss the benefits entrepreneurs derive from "social transactions" and "cooptation" in order to acquire resources or convince multipliers to cooperate with them; Starr and MacMillan (1990), pp. 83ff.

[351] Aldrich and Fiol (1994), p. 658.

[352] See Stuart et al. (1999), p. 315.

[353] See Stuart (2000), p. 808.

[354] See Sarkar et al. (2001), p. 701.

[355] See Hitt et al. (2001), p. 483.

3.2.6 Employee-driving behavior

The importance of employees is well established in the stakeholder literature. But recently also the literature on market orientation has discovered the importance of employees for market oriented behaviors. This is because "a firm's market orientation is the cumulative result of the market-oriented behaviors of its individual employees"[356]. Lings introduced the concept of "internal market-oriented behaviors" which is "about identifying and satisfying the wants and needs of employees as a prerequisite to satisfying the wants and needs of customers."[357] He identifies internal market research to understand the needs and wants of employees, communication with employees and between managers, and response in the form of providing satisfying jobs, training and reward structures to employees as the three dimensions of internal market-oriented behavior.[358] The parallels to "external" market orientation are directly obvious. Also in parallel to the established concept of (external) market orientation, the author suggests a positive impact of internal market-oriented behavior on performance in the form of increased employee motivation, retention, satisfaction, and commitment to the organization. These internal performance measures in turn influence the overall market orientation of the company.[359]

Perrinjaquet & Furrer state that companies can increase their market orientation by
a) selecting employees with favourable attitudes towards market orientation,
b) providing them with training that reinforces those attitudes; and
c) developing reward systems that foster market-oriented behaviors by employees.[360]
They also empirically test and prove that "les entreprises dont les employés ont des attitudes ne soutenant pas l'OM [orientation vers le marché] se trouvent dans une position concurrentielle défavorable par rapport a celles dont les employés ont des attitudes plus orientées vers le marché"[361]. The authors hereby highlight that the employees' impact on market orientation also affects the competitive position of the firm.

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356 Abu-Shalback Zid (2005), p. 4.
357 Lings (2004), p. 408.
358 See Lings (2004), p. 409.
359 See Lings (2004), pp. 410f.
360 See Perrinjaquet and Furrer (2006), p. 45; similar in Furrer et al. (2004).
361 Perrinjaquet and Furrer (2006), p. 45.

The contributions mentioned above propose a starting point for the elaboration of an employee-driving behavior construct which should focus on the selection and empowerment of employees as well as the incentive system employed to foster market-driving behavior. Parting a little bit from the logic employed above in order to capture the essences of the concept employee-driving behavior is defined as *the extent to which a firm engages in behaviors aimed at enabling and encouraging employees to influence the behavior of the firm's customers, competitors, channels, regulators, and multipliers*.

As emerging firms are usually relatively resource-poor, employees are frequently one of their main assets. The general importance of employees will thus likely be even augmented in emerging firm settings. Therefore employee-driving behavior can be considered an important aspect of market-driving behavior in emerging firms and will be included for the purpose of the empirical study.

3.3 Consequences of market-driving behavior

Whether market-driving behavior can be more successfully employed by established companies or emerging firms so far has been a point in question.[362] Undisputed, however, are the beneficial consequences which can be created by implementing a successful market-driving strategy.[363] In this work the focus will be on the positional and performance consequences of market-driving behavior, i.e. the impact of market-driving behavior on competitive advantage and firm performance.

3.3.1 How market-driving behavior leads to competitive advantage

Market-driving behavior has been argued to provide companies with a competitive advantage.[364] Kumar et al. stated that "[m]arket driving companies […] gain a more sustainable competitive advantage by delivering a leap in customer value through a unique business system"[365]. The authors explain that whereas the value proposition is readily visible to the market, the (internal) business system is in most cases not

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362 See e.g. Jaworski et al. (2000), p. 53.
363 See Kumar et al. (2000); Jaworski et al. (2000); Hamel (1996).
364 See e.g. Hills and Bartkus (2007), p. 148.
365 Kumar et al. (2000), p. 129.

obvious to other market players.[366] It is therefore the business system which possesses the attributes of "rare" and "difficult to imitate" whereas the value proposition needs to add the attributes of "valuable" and "non-substitutable" in order to create a sustainable competitive advantage. More generally, market-driving behavior is valuable because it changes the behavior of market entities in a way that is beneficial for the company, i.e. in a way that increases the fit with the company's existing resources.[367] It is rare because there are few companies that master the art of market-driving behavior.[368] The difficulty to imitate a successful market-driving strategy stems from the unique business system often implemented along with it.[369] Of course, no business system – however innovative – will remain unmatched forever. It always carries the risk to be imitated or – more likely – substituted by another market-driving idea.[370] Therefore, non-substitutability is the hardest characteristic to achieve and usually only of temporary nature.

Market orientation in general has been identified as a means to achieve competitive advantage for emerging firms.[371] Emerging firms have been argued to possess an advantage in terms of flexibility in comparison to established firms.[372] Market-driving behavior enhances market-focussed strategic flexibility.[373] Therefore it can be inferred that market-driving behavior – as one current of market oriented behaviors – should provide a basis for emerging firms to achieve competitive advantage.

3.3.2 Impact of market-driving behavior on company performance

Market-driving behavior has been identified as a key performance driver for companies. Prahalad observed that it "is tied closely to profit performance and is, therefore, an important question for managers to address"[374]. Kim & Mauborgne associate market-driving behavior with company profitability and growth.[375]

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366 See Kumar et al. (2000), p. 131.
367 See Carrillat et al. (2004), p. 2.
368 See Jaworski et al. (2000), p. 53.
369 See Kumar et al. (2000), p. 131.
370 See Markides (1999), p. 58.
371 See Pelham (1997), p. 67.
372 See e.g. Fiegenbaum and Karnani (1991), pp. 103ff; Beaver and Jennings (2000), p. 398; Shimizu and Hitt (2004), pp. 45ff.
373 See Johnson et al. (2003), pp. 80ff.
374 Prahalad (1995), p. iii.
375 See Kim and Mauborgne (2005), p. 106.

Other authors have focused on more qualitative dimensions of performance. Tuominen et al. find a positive relationship between market-driving behavior and increased customer intimacy.[376] As increased customer intimacy can translate into increased customer loyalty, market-driving behavior can be hypothesized to have a positive impact on customer loyalty.

Market-driving behavior has also been brought into context with new product success. Examples of successful new product introductions like [yellow tail] wine or Chrysler's minivan have been associated with market-driving behavior.[377]

Chrisman et al. compare the determinants of performance in emerging firms and established companies and find them to be "nearly identical".[378] The findings about the relationship between market-driving behavior and performance in established companies should therefore also be valid for emerging firms. Zimmerman & Zeitz argue that the right strategy leads to legitimacy for an emerging firm.[379] A market-driving strategy can be an appropriate strategy in this respect because it seeks to influence key stakeholders that affect a venture's legitimacy. The authors see legitimacy as a resource that helps obtain other resources which in turn increase the possibility of survival of the firm and stimulate its growth.[380] The previous section discussed how market-driving behavior can lead to competitive advantage for an emerging firm. Because a sustainable competitive advantage has been argued to be the underlying cause of superior performance[381] – both in established and emerging firms – it can be deduced that market-driving behavior can lead to increased performance in emerging firms.

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376 See Tuominen et al. (2004), p. 214.

377 See e.g. Kim and Mauborgne (2004); Kim and Mauborgne (2005).

378 See Chrisman et al. (1998), p. 7.

379 The authors discuss four main strategies to build legitimacy: *Conformance* – adapting to the demands and expectations of the existing social structure; *Selection* – choosing the environment in which to operate; *Manipulation* – changing the environment to achieve a fit between the firm and its environment; *Creation* – developing norms, values, expectations, behavioral patterns, networks, or frames of reference that did not previously exist in the environment; see Zimmerman and Zeitz (2002), pp. 422ff; The two latter ones clearly contain elements of market-driving behavior.

380 Zimmerman and Zeitz (2002), pp. 414f.

381 See Porter (1985); Day and Wensley (1988); Barney (1991); Fiegenbaum and Karnani (1991); Chen and Hambrick (1995).

H1: Market-driving behavior in emerging firms is positively related to company performance.

Contingency theory has taught us, however, that the strength of the relationship between market-driving behavior and firm performance will be influenced by the environmental conditions under which the particular company operates. Carrillat et al. e.g. suggest that this relationship will be stronger in an environment that is characterized by stronger customer interaction.[382] Network theory has it that a company can more easily attempt to control stakeholder behaviors and expectations if it operates under conditions of low density and high centrality within its network of stakeholders.[383]

Acknowledging the importance of contingencies a set of moderators of the relationship between market-driving behavior and firm performance will subsequently be discussed.

3.4 Moderators of the market-driving behavior – business performance relationship

As discussed above, contingency theory suggests that investigating moderating variables of the market-driving behavior – business performance relationship will greatly enhance the explanatory power of a strategic management concept. Early contributors to the market-driving behavior concept agree: "Research focusing on the relationship between contingencies, environmental management strategies, and performance should prove useful to marketing strategists."[384]

The moderators used in this study were selected in a two step process. First the relevant literature on market orientation in general, market-driving behavior more specifically and contingency factors affecting the performance of emerging firms was reviewed. Moderators that were argued to influence the relationship between market orientation, market-driving behavior or entrepreneurial orientation and some form of

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382 See Carrillat et al. (2004), p. 9.
383 See Rowley (1997), p. 903.
384 Zeithaml and Zeithaml (1984), p. 51.

company performance were identified. Table 4 gives an overview of these literature contributions and the suggested moderators.

Authors (Year)	Investigated relationship	Suggested moderators	Moderation
Sandberg & Hofer (1987)	• New venture performance	• **Industry development stage** • Industry Stability • Competitive structure • Barriers to entry • Product characteristics	• Confirmed • Confirmed • Confirmed • Confirmed • Confirmed
Jaworski & Kohli (1993)	• Market orientation – company performance	• Technology turbulence • Market turbulence • Competitive intensity	• Rejected • Rejected • Rejected
Diamantopoulos & Hart (1993)	• Market orientation – company performance	• Market turbulence • **Competitive intensity** • **Demand conditions/ industry development stage**	• Confirmed • Confirmed • Confirmed
Slater & Narver (1994)	• Market orientation – company performance	• **Market turbulence** • **Technology turbulence** • Competitive hostility • Market growth	• Confirmed • Confirmed • Rejected • Confirmed
Atuahene-Gima (1995)	• Market orientation – new product performance	• **Degree of innovation** • **Competitive intensity** • Environmental hostility • Stage of product life cycle	• Confirmed • Confirmed • Confirmed • Confirmed
Liu (1995)	• Development of a market orientation	• **Firm size/ Company development phase**	• Confirmed
Greenly (1995)	• Market orientation – company performance	• Market turbulence • Technology turbulence • Customer power	• Confirmed • Confirmed • Confirmed
Lumpkin & Dess (1996)	• Entrepreneurial orientation – company performance	• Environmental dynamism • Organizational complexity	• Hypothesized • Hypothesized
Bowman & Gatignon (1996)	• Marketing mix – company performance	• **Order of entry**	• Confirmed
Becherer & Maurer (1997)	• Market orientation – company performance • Entrepreneurial orientation – company performance •	• Environmental turbulence • Environmental hostility • Environmental turbulence • Environmental hostility	• Rejected • Confirmed • Rejected • Rejected
Durand & Coeurderoy (2001)	• Strategic orientation – company performance	• Order of entry • Industry development stage	• Confirmed • Confirmed
Qu & Ennew (2005)	• Development of a market orientation	• **Regulation intensity** • Ownership structure • Resource availability	• Confirmed • Confirmed • Confirmed
Menguc & Auh (2006)	• Market orientation – company performance	• **Degree of innovation** • Order of entry	• Confirmed • Hypothesized

Table 4: Reviewed moderators

The second step was an evaluation of the suitability of these moderators for the purpose of the present study. Moderators were included if they had some type of

foundation in the literature[385], empirical support for their role as a moderator existed[386], a high relevance for market-driving behavior in emerging firms could be assumed[387], they reflected a single underlying concept[388] and they did not overlap conceptually with other moderators[389].

This step yielded eight moderators that are considered suitable for the empirical study of this dissertation: company development phase, industry development stage, order of entry, technology turbulence, market turbulence, competitive intensity, regulation intensity and degree of innovation. Thirteen further moderators were discarded because they did not meet the required criteria or were found to be too similar to one or more of the other moderators. Table 5 presents the selection logic and summarizes the evaluation results.

Moderator	Discussed in literature	Moderating relationship found	Relevance for MDB	Single dimensional concept	Similarity with	Suitability for study
Company development phase	• YES	• YES	• HIGH	• YES	• --	• YES
Industry development stage	• YES	• YES	• HIGH	• YES	• --	• YES
Order of entry	• YES	• YES	• HIGH	• YES	• --	• YES
Technology turbulence	• YES	• YES	• HIGH	• YES	• --	• YES
Market Turbulence	• YES	• YES	• HIGH	• YES	• --	• YES
Competitive Intensity	• YES	• YES	• HIGH	• YES	• --	• YES
Regulation intensity	• YES	• YES	• HIGH	• YES	• --	• YES
Degree of Innovation	• YES	• YES	• HIGH	• YES	• --	• YES
Environmental turbulence	• YES	• YES	• HIGH	• NO	• Market turbulence • Technology turbulence	• NO

[385] If there was at least one relevant literature source that discussed a certain moderator, it was classified as having a literature foundation.

[386] There should at least be one empirical study that confirmed a moderated relationship in order to satisfy this criterion; contradicting indications from different sources did not affect the decision to include a particular moderator.

[387] High relevance was assumed if the moderator was discussed in both the market orientation and the entrepreneurship literature; articles about market orientation in emerging firms were counted for both.

[388] If the literature named two or more conceptually different dimensions in the definition of the variable this criterion was not fulfilled.

[389] Where different moderators shared a single underlying idea it was intended to select the one that best satisfied the other criteria.

Environmental dynamism	• YES	• YES	• MEDIUM	• NO	• Market turbulence • Technology turbulence	• NO
Environmental hostility	• YES	• YES	• HIGH	• NO	• Competitive intensity	• NO
Stage of product lifecycle	• YES	• YES	• MEDIUM	• YES	• Company development phase	• NO
Market growth	• YES	• YES	• MEDIUM	• YES	• Industry development stage	• NO
Industry stability	• YES	• YES	• MEDIUM	• NO	• Technology turbulence • Regulation intensity	• NO
Competitive structure	• YES	• YES	• HIGH	• YES	• Competitive intensity	• NO
Barriers to Entry	• YES	• YES	• MEDIUM	• YES	• Competitive intensity	• NO
Product characteristics	• YES	• YES	• MEDIUM	• NO	• Degree of innovation	• NO
Customer Power	• YES	• YES	• MEDIUM	• YES	• --	• NO
Ownership structure	• YES	• YES	• MEDIUM	• YES	• --	• NO
Organizational complexity	• YES	• NO	• MEDIUM	• YES	• --	• NO
Resource availability	• YES	• YES	• HIGH	• NO	• --	• NO

Table 5: Evaluated and selected moderators

The following discussion will present hypotheses regarding the **absolute** and **relative** impact of each moderator on the relationship between market-driving behavior and company performance. The absolute impact refers to the question in which environmental state market-driving behavior will absolutely have a more positive influence on performance. The relative impact refers to the question if market-driving behavior or market-driven behavior has a more positive impact on performance in a given environmental scenario.

3.4.1 Company development phase

Emerging companies' development follows a life cycle.[390] Different authors have suggested three, four and five stage models to capture these development phases of emerging companies. Aspects covered by these concepts include concept development, market entry, growth, consolidation, maturity and decline.[391] As the

[390] See Hanks et al. (1993), p. 5.
[391] See e.g. Kazanjian (1988); Galbraith (1982); Churchill and Lewis (1983); Hanks et al. (1993).

focus of this thesis is emerging companies the decline phase will be excluded because it is not reflective of the definition of emerging firms.

The literature on market orientation has suggested that the development phase of a company influences its market orientation with a stronger market orientation usually developing over time as the company grows.[392] However, this relationship is different for market-driving behavior. As was discussed in the previous chapter an emerging firm can derive advantage from market-driving behavior such as proactive legitimacy building for its business. This can be achieved e.g. by customer-driving activities that aim to educate customers about the benefits of the company's offer, by regulator-driving activities that induce regulation in line with company practices or by multiplier-driving activities that seek to create visibility through media coverage and legitimacy by affiliation with establish companies. This legitimacy is especially valuable for emerging firms in their early development phase.[393] Therefore market-driving behavior is likely more effective in the early development phase of an emerging firm.

H2a: Companies in their early development phases will show a stronger relationship between market-driving behavior and company performance than companies in their later development phases.

The same argumentation should be valid when evaluating the relative influence of market-driving behavior vis-à-vis market-driven behavior. In the early company phases an emerging firm should employ market-driving behavior to proactively create legitimacy for its business and acquire the necessary resources for further growth. Once the firm reaches the later phases of its development it should shift its focus to market-driven behavior in order to be able to better identify and react to the needs of its existing customer base.

H2b: Companies in their early development phases will ***relatively*** *show a stronger relationship between market-driving behavior and company performance than companies in their later development phases.*

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[392] See e.g. Gruber (2004), pp. 174f; Liu (1995), p. 65.

[393] See Zimmerman and Zeitz (2002), p. 414; Romanelli found that "market aggressiveness" – i.e. the proactive acquisition of resources and legitimacy – increased the likelihood of survival for emerging firms; see Romanelli (1989), p. 385.

3.4.2 Industry development stage

Every industry usually develops in a cyclical fashion.[394] It starts small, then grows rapidly, consolidates after some time, reaches its maturity and eventually declines. Different cycle models have been proposed which are generally similar in content and usually consist of four to five stages. For the purpose of this thesis a four-stage model derived from Anderson & Zeithaml is employed.[395] They describe the cycle as consisting of an introduction stage, a growth stage, a maturity stage and a decline stage.[396]

Sandberg & Hofer found that emerging firms were more successful when they entered during the early, high-growth stages of an industry lifecycle. They explain this fact with less competition during these stages. Company growth can come from market growth rather that by taking market share from other competitors. Also the market turbulence associated with high market growth provides some room for experimentation without being penalized for minor mistakes.[397] Diamantopoulus & Hart empirically confirm a stronger positive influence of market oriented behavior on company performance in "sunrise" industries.[398] Covin & Slevin found that emerging firms entering an industry in the introduction stage were less successful than those entering in the growth stage.[399] Zimmerman & Callaway argue that institutional entrepreneurs – which exhibit key characteristics of market-driving firms – will achieve superior performance in the growth phase of the industry lifecycle if they engaged in market-driving behavior during the introduction stage.[400] Menguc & Auh approximate a market-driving behavior by bundling together constructs for market orientation and innovativeness. They find support for the importance of the lifecycle perspective in moderating the relationship between market-driving behavior and performance. Their results suggest that market-driving behavior is more positively related to business performance in the introduction and growth stages.[401] In summary,

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394 See e.g. Mascarenhas and Aaker (1989), pp. 199f.

395 This model was selected because it is based on Hofer's seminal work and integrates perspectives from other important works about the lifecycle concept like Hambrick et al. and MacMillan et al.; see Hofer (1975); MacMillan et al. (1982); Hambrick et al. (1982); Anderson and Zeithaml (1984).

396 See Anderson and Zeithaml (1984), p. 6ff.

397 See Sandberg and Hofer (1987), p. 16.

398 See Diamantopoulos and Hart (1993), p. 118.

399 See Covin and Slevin (1990).

400 See Zimmerman and Callaway (2001), pp. 12f.

401 See Menguc and Auh (2006), p. 71.

the literature suggests that market-driving behavior will have a more significant influence on performance in the early stages of the industry lifecycle.

H3a: Industries in their introduction or growth stages will show a stronger positive relationship between market-driving behavior and company performance than industries in their maturity or decline stages.

From the discussion above it can also be concluded that market-driving behavior will be relatively more beneficial in the early stages of the industry life cycle because of its ability to drive the industry legitimation process by influencing the industry's norms, institutions and technological standards.

H3b: Industries in their introduction or growth stages will show a ***relatively*** *stronger positive relationship between market-driving behavior (vis-à-vis market-driven behavior) and company performance than industries in their maturity or decline stages.*

3.4.3 Order of market entry

A key event in the development of an industry is the emergence of a dominant design.[402] The dominant design is the technological configuration that becomes the standard for the industry. Before this dominant design emerges there is a period of radical technological shifts and erratic development. After the dominant design is established the further development takes place in a more incremental fashion.[403] The market, however, will experience its strongest growth only after one dominant design has prevailed because of the lower risk for customers upon adopting a standard. A standard leads to lower costs from volume production and higher utility because other companies will offer complementary products.[404]

Durand & Coeurderoy found that "depending on a firm's age and entry order only some strategic orientations contribute to the firm's organizational performance"[405].

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[402] See Suarez and Utterback (1995), p. 416; Anderson and Tushman (1990), p. 613, citing Utterback and Abernathy (1975).
[403] See Anderson and Tushman (1990), pp. 612f.
[404] See Anderson and Tushman (1990), p. 615.
[405] Durand and Coeurderoy (2001), p. 489.

Bowman & Gatignon show that order of entry moderates the relationship between marketing mix and market share.[406] They also argue that market-driving behavior aimed to shape customer preferences is more effective if the focal company is an early entrant because in this case it can influence the attribute weights that customers use to evaluate a product or service offering.[407]

Suarez and Utterback discuss four factors that influence the adoption of a dominant design. The first is collateral assets like channels or brand image which provide its possessors with ways to promote its own technology and processes as the dominant design. Secondly, industry regulation can lead to the emergence of a dominant design. A third factor has been termed "strategic maneuvering"[408] by Cusumano, Mylonadis & Rosenbloom and resembles the notion of competitor-driving behavior. A final factor is the existence of network externalities which increase the value of a product to each individual the more customers adopt it. In such a case the dominant design will likely fall to the company which can most quickly grow its customer base.[409]

The aforementioned factors suggest that market-driving behavior through channel-driving, regulator-driving, competitor-driving and customer-driving activities should serve to influence the development of a dominant design. As this influence only makes sense before the dominant design is established the impact of market-driving behavior on firm performance is presumably stronger during that period.

H4a: There will be a stronger positive relationship between market-driving behavior and company performance for companies that entered an industry before the emergence of a dominant design than for companies that entered after the dominant design has been established.

*H4b: There will be a **relatively** stronger positive relationship between market-driving behavior (vis-à-vis market-driven behavior) and company performance for companies that entered an industry before the emergence of a dominant design than for companies that entered after the dominant design has been established.*

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406 See Bowman and Gatignon (1996), pp. 236ff.
407 See Bowman and Gatignon (1996), p. 226; also see Carpenter et al. (1997).
408 See Cusumano et al. (1992).
409 See Suarez and Utterback (1995), pp. 417f.

3.4.4 Technology turbulence

Technological innovation is another route to competitive advantage than is market orientation. Jaworski & Kohli argue that in environments with rapidly changing technologies the impact of market orientation on business performance is diminished.[410] The rationale behind this is that when market turbulence is high, R&D-driven innovation is more important for a firm's performance than customer-driven innovation resulting from market orientation.[411] Empirical support for this line of reasoning is mixed, however.[412] Along the lines of the discussion on market turbulence (see Chapter 3.4.5) it is nevertheless proposed that the deliberately planned and implemented efforts of market-driving behavior will have a greater impact in less technologically turbulent environments.

H5a: In environments with low technology turbulence there will be a stronger relationship between market-driving behavior and company performance than in environments with high technology turbulence.

In relative terms it seems reasonable to assume that market-driven behavior will be more beneficial than market-driving behavior in highly turbulent environments because the former can readily adapt to changing technological conditions while such change may counteract the latter before its actions can take effect.

H5b: In environments with low technology turbulence, market-driving behavior will be ***relatively*** *more advantageous than market-driven behavior. The opposite is true in environments with high technology turbulence.*

3.4.5 Market turbulence

Jaworski & Kohli discuss market turbulence as a moderator of the relationship between market orientation and business performance. They define market turbulence as "the rate of change in the composition of customers and their preferences"[413]. Their reasoning is that a more turbulent market increases the necessity to be market-driven because of an increased need to understand and adapt to the more rapidly changing

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410 See Jaworski and Kohli (1993), p. 57.
411 See Kirca et al. (2005), p. 35.
412 See Slater and Narver (1994), p. 52; Greenley (1995), p. 8.; Kirca et al. (2005), p. 36.
413 Jaworski and Kohli (1993), p. 57.

preferences. The other way round they argue that more market-driven firms should achieve better performance.[414] Greenly empirically shows a stronger positive relationship between market-driven behavior and firm performance in an environment of low market turbulence.[415]

Miles & Snow describe a typology with four different strategic types based on their response to changing environmental conditions: defenders, reactors, analyzers, and prospectors. Defenders have narrowly focused product-market definitions and usually do not look outside of their domain for new opportunities. Reactors respond to environmental changes if pressured to do so. Analyzers are partly operating in stable environments and partly in more dynamic ones. Prospectors are the most proactive actors. They continuously look for new opportunities and induce change to their industries.[416] Prospectors are therefore the closest to market-driving firms whereas analyzers can be paralleled with market-driven companies. This typology has also been tested empirically and its applicability in the area of marketing has been confirmed.[417] McKee et al. find that in mildly volatile markets analyzers outperform the other strategy types. They fail, however, to identify a superior strategy type for highly volatile markets. Also their measure of market volatility does not include changes in customer preferences but rather measures the volatility of the company's annual sales.[418] Therefore their results should not be seen as contradicting the Jaworski & Kohli argumentation.

The effect of market turbulence on market-driving behavior is a different story than in the case of market-driven behavior. Market-driving behavior is a targeted and strategic effort to alter the behavior of market entities. This effort needs a certain time to be planned and implemented. Therefore rapidly changing customer preferences would most likely counteract the market-driving activities and nullify their impact. It seems more reasonable to assume that market-driving behavior can unfold its positive influence on performance in an environment of low market turbulence. This leads to the following proposition.

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414 See Jaworski and Kohli (1993), p. 57.
415 See Greenley (1995), p. 7.
416 See Miles and Snow (1978); McDaniel and Kolari (1987), p. 20.
417 See McDaniel and Kolari (1987).
418 See McKee et al. (1989), p. 30.

H6a: In environments with low market turbulence there will be a stronger relationship between market-driving behavior and company performance than in environments with high market turbulence.

A similar logic can be utilized to determine the relative impact of market-driving vs. market-driven behavior in these environments. The market-driven firm will have an advantage in more turbulent markets because it focuses on quickly adapting to changing customer preferences while market-driving firms should benefit in less turbulent markets where they can change customer preferences in order to better fit with the company's capabilities.

H6b: In environments with low market turbulence, market-driving behavior will be ***relatively*** *more advantageous than market-driven behavior. The opposite is true in environments with high market turbulence.*

3.4.6 Competitive intensity

Sandberg & Hofer discuss the influence of the competitive structure on the success of new venture entries into an industry. Citing analyses of the PIMS data they suggest that the more successful entries occur in industries with a lower degree of competitive intensity.[419] Competitive intensity is also a moderator introduced by Jaworski & Kohli in the context of market orientation. They reasoned that in highly competitive environments market orientation leads to better performance. On the other hand, in environments with low competitive intensity the need to be market oriented is less pronounced because the customer is often stuck with existing product offers and has little possibility to change providers.[420] The same logic applies to market-driving behavior. Little competition reduces the need to be market-driving in order to gain a competitive advantage. But under conditions of strong competition market-driving behavior should enable superior performance.

H7a: In environments with high competitive intensity there will be a stronger relationship between market-driving behavior and company performance than in environments with low competitive intensity.

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[419] See Sandberg and Hofer (1987), p. 13.
[420] See Jaworski and Kohli (1993), p. 57.

Evaluating the relative impact of market-driving behavior is a little more complex as both market-driving and market-driven behavior have been associated with better performance in highly competitive environments. This observation notwithstanding an argument could be made that market-driving behavior is the more beneficial behavior due to its larger range of possible actions. As it does not accept the competitive structure as a given it can disrupt the status quo and induce change that benefits the market-driving company. It thus holds the key to produce the "sequence of advantages" which is increasingly important to maintain performance superiority in hypercompetitive markets.[421] D'Aveni's 7S framework focuses on three dimensions to create disruptions which benefit the focal firm:

1) Develop a vision for disruption which identifies and anticipates new ways to provide value for customers,

2) build capabilities for disruption such as speed and surprise, and

3) employ the right tactics for disruption by shifting the rules of the game, signaling, and launching a set of either sequential or simultaneous actions.[422]

The third dimension encompasses actions also discussed in the context of competitor-driving behavior.

H7b: In environments with high competitive intensity, market-driving behavior will be ***relatively*** *more advantageous than market-driven behavior. The opposite is true in environments with low competitive intensity.*

3.4.7 Regulation intensity

Regulation has a significant influence on the conditions for conducting business in general and on market orientation in particular. Qu & Ennew found that regulation that restricts competition inhibits the development of a market orientation.[423] On the other hand they found that regulation emphasizing product quality and consumer protection encourages the development of more market oriented business practices.[424] Thus both the extent and the content of regulation seem to play a critical role in influencing the relationship between market orientation and business performance. This is the starting point for regulator-driving behavior which is part of market-driving behavior. The

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421 See D'Aveni (1994); D'Aveni (1995), p. 45; Wiggins and Ruefli (2005), p. 887.
422 See D'Aveni (1995), pp. 49ff.
423 See Qu and Ennew (2005), p. 85.
424 See Qu and Ennew (2005), p. 86.

market-driving company seeks to influence the regulation in a way that is consistent with the company's goals and enhances its competitive position and performance.[425] However, more often than not, lower regulation intensity means that there are fewer barriers to doing business. Less regulation therefore decreases the need for regulator-driving behavior and its potential impact on performance. Only when the regulation intensity increases – with potentially adverse consequences for the focal firm – the incentive to monitor and influence regulators increases. And with a larger body of regulatory norms in place or on regulators' agendas the options and impact of market-driving behavior are enhanced.

H8a: In environments with high regulation intensity there will be a stronger relationship between market-driving behavior and company performance than in environments with low regulation intensity.

In comparison to market-driven firms who monitor and adapt to new regulation a market-driving firm seizes the opportunities to influence the regulatory process. It is therefore in a unique position to benefit if it manages to integrate its own demands into the legislation passed by regulators. An example of such practices is Southwest Airlines' lobbying effort which eventually enabled it to compete in the regional air travel market.[426] For that reason market-driving firms will be relatively more successful than market-driven firms in more strongly regulated environments.

H8b: In environments with high regulation intensity, market-driving behavior will be ***relatively*** *more advantageous than market-driven behavior. The opposite is true in environments with low regulation intensity.*

3.4.8 Degree of innovation

Innovation is the lifeblood of entrepreneurial firms. At the same time innovation and marketing have been identified as vital functions which help the company find and satisfy its customers. Drucker stated: "Because it is its purpose to create a customer, any business enterprise has two—and only these two—basic functions: marketing and

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[425] See Hills et al. (forthcoming).
[426] See Jaworski et al. (2000), p. 52.

innovation.[427] The degree of innovation can be measured by assessing how radical an innovation is. Hill & Rothaermel describe an innovation as radical when it "involves methods and materials that are novel to incumbents" and stems from a completely different base of knowledge or a recombination between new and existing knowledge.[428]

Menguc & Auh found that the relationship between market-orientation and firm performance was moderated by the degree of innovativeness of the firm and that it was stronger for high levels of innovativeness.[429] However, the authors use the market orientation scale developed by Narver & Slater – which differs from the scale employed in this study[430] – for their assessment. Also their innovativeness scale focuses more on the organizational acceptance of innovations while the intention of this study is to use the degree of innovation (incremental vs. radical) as a moderator.[431] Atuahene-Gima investigates the impact of market-orientation on new product performance. One of his findings is that market-driven behavior has a greater impact on new product performance when the product is an incremental innovation.[432] The author also points out that this outcome – although contradicting his initial hypothesis – is supported by the argumentation that market orientation is less important for the success of radically new products because such products can be sold entirely based on their technological sophistication.[433] Atuahene-Gima uses a scale developed by Ruekert (1992)[434] to measure market-driven behavior and employs an innovation construct that assesses the degree of product newness to customers and to the firm.[435] Both of the employed scales are closer related to the measures used in the present study and therefore the findings of Atuahene-Gima should be more conclusive than the ones of Menguc & Auh when it comes to hypothesis formulation for market-driving behavior.

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427 Drucker (1954), p. 37.
428 See Hill and Rothaermel (2003), p. 258.
429 See Menguc and Auh (2006), p. 69.
430 This study employs an adapted MARKOR scale following Kohli & Jaworski's conceptualization – see Chapter 4 for a more detailed discussion.
431 See Menguc and Auh (2006), pp. 67f.
432 See Atuahene-Gima (1995), p. 275.
433 See Bennett and Cooper (1981), pp. 52f; Holak and Lehmann (1990); Popper and Buskirk (1992).
434 See Ruekert (1992).
435 See Atuahene-Gima (1995), pp. 281ff.

H9a: Companies that introduce radical innovation will show a weaker relationship between market-driving behavior and company performance than companies that introduce incremental innovation.

The relative impact of degree of innovation on the market-driving behavior – performance relationship is more complex to evaluate. Athuahene-Gima finds that market-driven behavior "helps to reduce the chances of the firm producing innovations that require major behavioral changes on the part of potential customers for adoption"[436]. The same author in a different investigation finds that competence exploration (which is conceptually close to market-driving behavior) is negatively related to incremental innovation performance and positively related to radical innovation performance.[437] Kumar et al. also associate market-driving behavior with radical innovation.[438]

*H9b: Companies that introduce radical innovation will show a **relatively** stronger relationship between market-driving behavior (vis-à-vis market-driven behavior) and company performance than companies that introduce incremental innovation.*

3.5 Overview of structural model

After the discussion of all individual aspects of the research model the integrated perspective assembles these building blocks in order to provide an encompassing view of the research project. This structural model is illustrated in Figure 7.

[436] Atuahene-Gima (1996), p. 99.
[437] See Atuahene-Gima (2005), pp. 77f.
[438] See Kumar et al. (2000), p. 129.

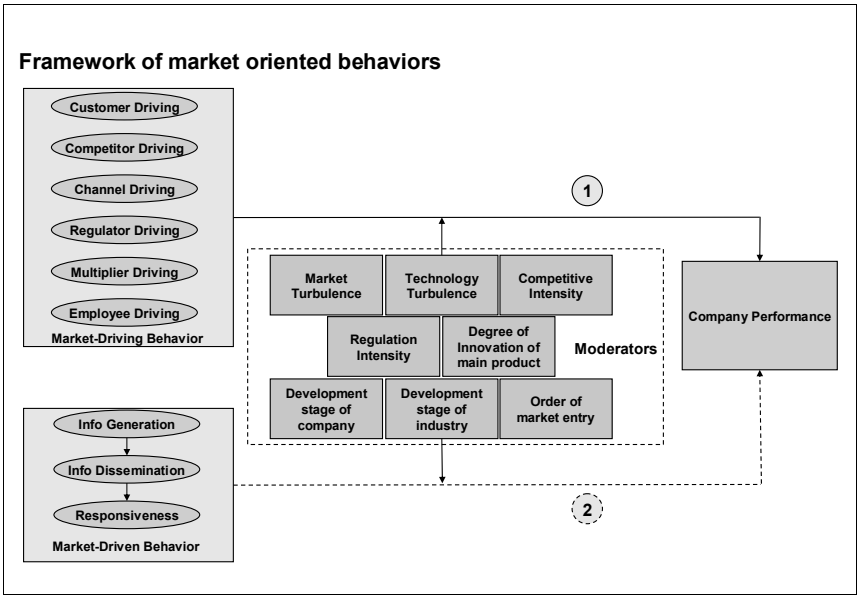

Figure 7: Structural model of market-driving and market-driven behavior

As can be seen from the graphic above the principal relationship that will be investigated is the relationship between market-driving behavior and company performance (denoted 1). This relationship will be analyzed in a variety of environmental conditions as expressed by the moderators which have been previously discussed. Additionally market-driven behavior will be introduced into the model to evaluate the relative impact vis-à-vis market-driving behavior (see number 2).

The hypotheses regarding the different relationships which have been developed in the course of Chapter 3 are summarized in Figure 8 below.

Hypotheses for relationship between MDB and firm performance

Moderator	Specification	A. MDB "Stand Alone"	B. MDB relative to MO
1. Company dev't phase	Early	+	+
	Late	-	-
2. Industry dev't stage	Early	+	+
	Late	-	-
3. Order of (market) entry	Early	+	+
	Late	-	-
4. Technology turbulence	Low	+	+
	High	-	-
5. Market turbulence (cust. preference)	Low	+	+
	High	-	-
6. Competitive intensity	Low	-	-
	High	+	+
7. Regulation intensity	Low	-	-
	High	+	+
8. Degree of innovation	Low	+	-
	High	-	+

+: *stronger/ relatively stronger relationship between MDB and company performance (hypotheses)*
-: weaker/ *relatively weaker relationship between MDB and company performance (hypotheses)*

Figure 8: Hypotheses on the moderated relationship between market-driving or market-driven behavior and company performance

4. Measurement of market-driving behavior in emerging firms

This chapter is designed to provide an operationalization of the market-driving behavior concept introduced in Chapter 3 and to present the questionnaire which is used in the empirical study that forms part of this thesis. It begins with a brief literature review on the existing approaches to measuring market-driving behavior. Subsequently the survey instrument for this thesis is elaborated following the process Churchill (1979) suggested for the development of marketing measures.

4.1 Measurement of market-driving behavior in the extant literature

The literature on market orientation holds a variety of scales measuring market-driven behavior.[439] However, there have so far not been any efforts to develop a scale to measure market-driving behavior. A first effort in this direction was recently undertaken by Hills and Bartkus (2007) as well as Hills, Sarin & Kohli.[440] The former included customer-driving behavior and competitor-driving behavior while the latter specified the four dimensions customer-driving behavior, competitor-driving behavior, channel-driving behavior and regulator-driving behavior in their scale. The authors developed their constructs employing a generally accepted process encompassing construct specification, construct operationalization, pre-testing and scale purification. They also tested their scale on a larger sample of (established) companies and found it to exhibit good reliability and validity.[441] The final scale of Hills et al. contained 11 items which will be further discussed in the following chapter.

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439 See e.g. Kohli et al. (1993); Narver and Slater (1990); Deshpandé et al. (1993); Desphandé and Farley (1998).

440 See Hills and Bartkus (2007); Hills et al. (forthcoming).

441 See Hills et al. (forthcoming), pp. 6ff; Hills and Bartkus (2007), pp. 149-151.

4.2 Design of the survey instrument

To arrive at the final survey instrument a systematic process as proposed by Churchill was followed.[442] The first step was the specification of the domain of the construct. Churchill emphasizes the importance of being exact about the boundaries of a measurement construct.[443] The aim of this study is to measure the market-driving behavior – i.e. the behavior that seeks to influence the market structure and the behavior of market entities defined broadly as key stakeholder groups in that market – of emerging technology firms.

Churchill further suggests reviewing the existing literature and using existing measures where possible.[444] This study follows this notion by building on the measure of market-driving behavior developed by Hills, Sarin & Kohli[445]. It was supplemented with aspects from related fields where appropriate and certain modifications and extensions were introduced both to adapt the measurement instrument to the specific study subject of emerging technology companies (vs. established companies in the case of Hills et al.) and to include certain stakeholder groups that have not been considered in the original measurement instrument. Although Churchill makes a strong case for keeping existing constructs the author considers that the newness of the market-driving behavior measurement in general and the specific properties of the research subject are sufficiently "good reasons for proposing additional *new* measures"[446] in this study.

The initial questionnaire was refined in pre-tests with marketing experts from both an academic and a practitioner background. The original list of 102 indicators was discussed with 10 marketing experts from four different German universities in a series of interviews leading to the elimination of 5 and the addition of 2 indicators as well as several indicators being reworded.

In a second step the refined survey instrument was pre-tested with a sample of 8 emerging technology companies. The pre-tests were conducted by having participants filling in the questionnaire and afterwards doing half-hour to one hour follow-up

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442 See Churchill (1979).
443 See Churchill (1979), p 67.
444 See Churchill (1979), p. 67.
445 See Hills et al. (forthcoming); Hills et al. (2005).
446 Churchill (1979), p. 67.

interviews in person or via phone to discuss participants' suggestions and questions. The participants were either founders or members of the founding team of their respective companies and included individuals from some of the most successful German start-ups in recent years. In this step again several items were reworded, 3 indicators eliminated and 2 indicators added.

The resulting final survey instrument will be discussed hereafter.

4.2.1 The market-driving behavior (MaDri) indicators

The indicators to measure market-driving behavior were derived by taking the market-driving behavior scale developed by Hills et al. and expanding it to incorporate some aspects crucial to emerging firms. The four original constructs of customer-driving behavior, competitor-driving behavior, channel-driving behavior and regulator-driving behavior were supplemented by two new constructs: multiplier-driving behavior and employee-driving behavior. The rationale to include these has been discussed in Chapter 3.

Also some additional items were added to the original constructs as two of them were only two-item constructs and especially the channel-driving behavior construct did not possess very strong validity and reliability ratios.[447] By doing so the original 11-item scale proposed by Hills et al. was brought up to 31 items. Each construct will be individually discussed in the following paragraphs.

[447] See Hills et al. (forthcoming), p. 16.

4.2.1.1 Customer-driving behavior

As discussed earlier customers are a key stakeholder group that must be influenced in order to be market-driving. This so-called "customer-driving behavior" aims to proactively change customer preferences and actions and is reflected in the construct's indicators displayed in Table 6.

Indicator ID	Text
CuD01	1. We regularly launch products/services that are intended to make customers rethink their likes/dislikes
CuD02	2. Our business unit doesn't always wait for customer feedback to find ways to improve customer service
CuD03	3. We often encourage customers to rethink the value they place on certain product/service features
CuD04	4. We regularly introduce innovative products / services that offer a superior utility versus the competition
CuD05	5. We often develop products / services that address latent rather than explicit needs (e.g. there was a latent need for mobile telephony even before the introduction of mobile networks. However, customers could not express this need as it was too different from existing perceptions about telephony)
CuD06	6. We regularly conduct campaigns / programs to educate customers

Table 6: Indicators of "Customer-driving behavior" construct

Items CuD01 – CuD03 are taken from Hills et al.'s operationalization of customer-driving behavior. Their content is the introduction of new products/ services intended to change customer preferences (CuD01), proactive customer service improvements (CuD02) and getting customers to reconsider which product or service characteristics are important to them (CuD03).[448] Kumar et al. and Jaworski et al. suggest offering customers superior benefits as a way to change their behavior (CuD04).[449] Jaworski et al. add to the construct of customer-driving behavior the aspects of developing products that satisfy latent rather than expressed needs (CuD05) and educating customers about new products and/ or value propositions (CuD06).[450]

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[448] See Hills et al. (forthcoming), p. 26; also see Hills and Bartkus (2007), p. 151 who use the same indicators.

[449] See Kumar et al. (2000), p. 130; Jaworski et al. (2000), p. 52.

[450] See Jaworski et al. (2000), pp. 51f.

4.2.1.2 Competitor-driving behavior

Competitor-driving behavior is a second construct included in Hills et al.'s market-driving behavior scale. Table 7 gives an overview of its indicators.

Indicator ID	Text
CoD01	1. Our business unit takes the initiative in creating roadblocks for our competitors.
CoD02	2. We regularly introduce practices from other industries that change the way our competitors operate.
CoD03	3. Our business unit initiatives often drive new rounds of competitive activity.
CoD04	4. Our business tries to change the number of competitors in the marketplace
CoD05	5. Our company often exerts influence towards competitors in order to establish our products / services as standards

Table 7: Indicators of "Competitor-driving behavior" construct

CoD01 – CoD04 are the original items employed in Hills et al.'s scale. They deal with establishing roadblocks for competitors (CoD01), introducing practices from other industries to which competitors have to adapt (CoD02), launching initiatives that start new rounds of competitive activity (CoD03) and changing the number of competitors in a market (CoD04).[451] In addition, Suchman discusses that competitor-driving firms will try to establish their products as market standards (CoD05).[452]

[451] See Hills et al. (forthcoming), p. 26; same as Hills and Bartkus (2007), p. 151.
[452] See Suchman (1995), pp. 592f.

4.2.1.3 Channel-driving behavior

The objective of channel-driving behavior is to design the distribution channels and control the different channel partners a company interacts with. Table 8 provides a listing of this construct's indicators.

Indicator ID	Text
ChD01	1. We have developed new channels of distribution for our marketplace
ChD02	2. We try to influence channel partners to accept different responsibilities than they have had in the past
ChD03	3. We constantly monitor other industries in order to derive distribution „best practices"
ChD04	4. Our company tries to proactively gain a significant level of control over our distribution channels
ChD05	5. We regularly encourage our suppliers to seek out new challenges (e.g. „just-in-time" delivery, different portion of value creation, etc.)

Table 8: Indicators of "Channel-driving behavior" construct

ChD01 and ChD02 are again derived from the Hills et al. scale. The former is concerned with the development of new distribution channels. The latter is about influencing channel partners to accept other responsibilities than they have previously had. Hamel points to the importance of introducing best practices from other industries (ChD03) in this context.[453] Hills & Sarin in an earlier article[454] associated channel-driving behavior with trying to gain significant control over distribution channels (ChD04). Employing a more inclusive definition of channel partners which included suppliers resulted in the encouragement of suppliers to accept new challenges (ChD05) being included in the channel-driving behavior construct.[455]

4.2.1.4 Regulator-driving behavior

The regulator-driving behavior construct incorporates indicators that measure how a company tries to influence regulators. The construct's items are shown in Table 9.

[453] See Hamel (1996), p. 77.
[454] See Hills and Sarin (2003).
[455] See Hills et al. (forthcoming).

Indicator ID	Text
ReD01	1. Our business unit tries to influence regulators to develop regulations that are favorable to us.
ReD02	2. We frequently try to drive changes in the policies of industry groups
ReD03	3. Our company is in regular contact with political institutions or regulatory bodies
ReD04	4. Our company actively participates in standardization bodies or political committees
ReD05	5. We dedicate significant resources to „lobbying"

Table 9: Indicators of "Regulator-driving behavior" construct

The two initial items were developed by Hills et al. Their content is intending to persuade regulators to pass favorable regulation (ReD01) and to induce changes in the positions of industry groups (ReD02).[456] Suchman suggests that a company that wants to be regulator-driving needs to be in regular contact with political institutions and government bodies (ReD03) as well as participate in standard bodies or political committees (ReD04).[457] Hillman et al. show that such links positively affect firm value.[458] Aldrich & Fiol as well as Zimmermann & Zeitz explicitly name lobbying[459] (ReD05) as a way to influence regulators.[460] Lord illustrates the positive impact of lobbying strategies on overall firm performance.[461]

4.2.1.5 Multiplier-driving behavior

The multiplier-driving behavior construct is an addition which has not been featured in the Hills et al. scale. Nevertheless it is an important aspect of market-driving behavior especially for emerging firms who generally have lower resource endowments than established companies and depend on the use of multipliers to establish legitimacy in the marketplace and achieve their market-driving objectives.[462] For this reason it has

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456 See Hills et al. (forthcoming), p. 26.
457 See Suchman (1995), pp. 593ff.
458 See Hillman et al. (1999), p. 79.
459 Keim & Zeithaml define lobbying as "efforts by political professionals or company executives to establish communication channels with regulatory bodies, legislators, and their staff [… in order] to monitor legislation, to provide issue papers and other information on the anticipated effects of proposed legislation, to convey the sentiments of company constituents on legislative issues to elected officials and their staff, and to attempt to influence the decisions of legislators and key advisors."; Keim and Zeithaml (1986), p. 830.
460 See Aldrich and Fiol (1994), pp. 649ff; Zimmerman and Zeitz (2002), p. 424.
461 See Lord (2003), pp. 112ff.
462 See Zimmerman and Zeitz (2002); Suchman (1995); Aldrich and Fiol (1994).

been included as an additional dimension of the market-driving behavior scale. Table 10 exhibits the corresponding indicators.

Indicator ID	Text
MuD01	1. We proactively communicate with multipliers (e.g. the media, investors, partner companies or educational institutions), to build support and acceptance for our company
MuD02	2. We constantly maintain relationships with key media and provide content to them
MuD03	3. We are often in contact with analysts and the financial community (e.g. banks, venture capitalists, etc.)
MuD04	4. We interact systematically with educational institutions to foster mutual knowledge transfer
MuD05	5. We are typically among the driving forces when it comes to forming new partnerships or coalitions

Table 10: Indicators of "Multiplier-driving behavior" construct

Stuart et al. state that affiliations with multipliers – especially prominent strategic alliance partners and equity investors – increase the company performance of new ventures.[463] Zimmermann & Zeitz find that they are also an important precondition to establish legitimacy for a new business (MuD01). This legitimacy enables the emerging firm to acquire additional resources which in turn are the basis for further growth.[464]

Another important multiplier in this respect is the media (MuD02). A new venture's media presence can significantly influence the perceptions of other stakeholder groups towards that company and a positive media voice can attract investors, customers or business partners.

A similar argument can be made for investors or more general the financial community (MuD03) – another vital multiplier. Zimmermann & Zeitz explain that "[t]he legitimacy–resource–growth relationship is especially critical to new ventures seeking resources, since there is typically little past economic performance on which the holders of resources can economically and rationally judge them"[465]. Thus,

[463] See Stuart et al. (1999), p. 315; Stuart (2000), p. 791.
[464] See Zimmerman and Zeitz (2002), p. 418.
[465] Zimmerman and Zeitz (2002), p. 417.

multiplier-driving behavior can help to secure funding which is a key bottleneck in many emerging firms.

Aldrich & Fiol also make a case that interaction with educational institutions (MuD04) can help emerging firms to gain legitimacy and acceptance with potential employees.[466] The final indictor takes up the argument of Stuart et al. that partnerships and coalitions (MuD05) can greatly enhance the performance of emerging firms. This is primarily due to the transfer of status from the more prestigious to the less prestigious organization.[467]

4.2.1.6 Employee-driving behavior

The second new construct that has been added to the market-driving behavior scale is the employee-driving behavior construct. Its indicators reflect the insight that employees are the ones who implement a market-driving strategy and therefore are crucial for its success. Table 11 presents the five indicators of this new construct.

Indicator ID	Text
EmD01	1. We encourage our employees to demonstrate a proactive rather than a reactive behavior
EmD02	2. We urge our employees regularly to develop innovative ideas that could radically change our business
EmD03	3. Our employees may dedicate part of their time to self-selected projects in order to advance their own ideas
EmD04	4. We try to enable our employees to lead our customers (e.g. to convince them of new products and processes; to create new forms of cooperation; etc.)
EmD05	5. Our company rewards the efforts of employees that take risks and develop new opportunities

Table 11: Indicators of "Employee-driving behavior" construct

The notion of employee-driving behavior is closely related to the concept of internal market orientation (IMO) elaborated by Lings[468] and can therefore be considered an integral part of market-driving behavior.

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[466] See Aldrich and Fiol (1994), pp. 660f.
[467] See Stuart et al. (1999), p. 315.
[468] See Lings (2004), p. 408.

It starts with encouraging employees to behave proactively rather than reactively (EmD01).[469] Hamel adds the aspect of motivating employees to develop radically new ideas that can redefine the business (EmD02).[470] As a part of this effort it has also been suggested in the literature that employees should be given some time to work on their own projects (EmD03) which are not dictated by the company.[471]

Employee-driving behavior also aims to enable employees to lead customers in a certain direction (EmD04). This is necessary because customers usually are not able to voice product demands which materially differ from the currently available offers.[472] To achieve this type of behavior by employees a company can e.g. provide training in order to build the necessary skills.[473] Finally it also requires a firm to rewards employees who take risks in order to act upon a particular opportunity (EmD05).[474]

4.2.2 The market-driven behavior indicators

The indicators to measure market-driven behavior were taken from prior research on the market orientation of emerging firms conducted at RWTH Aachen. This research adapted the MARKOR scale originally developed by Kohli, Jaworski & Kumar[475] for an emerging firm context.[476] The adapted scale consists of 6 items measuring the construct "Intelligence generation", 7 items measuring the construct "Intelligence dissemination" and 8 items measuring the construct "Responsiveness".

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469 See Hills et al. (forthcoming), p. 26; the authors present the proactive vs. reactive behavior distinction in a general market-driving behavior context. As they later dropped this item from their final scale the author of this study included it in his employee-driving behavior construct because he considered this item to capture an essential idea.

470 See Hamel (1999), pp. 78f.

471 See Kumar et al. (2000), p. 137; Hamel (1999), p. 73.

472 See Kim and Mauborgne (2005), p. 112.

473 See Perrinjaquet and Furrer (2006), p. 45.

474 See Hamel (1999), p. 77; Perrinjaquet and Furrer (2006), p. 45.

475 See Kohli et al. (1993).

476 See Kessell (2006); Claas (2006).

4.2.2.1 Intelligence generation

The six intelligence generation indicators used in this study's questionnaire are presented in Table 12.

Indicator ID	Text
InG01	1. In our company we do a lot of in-house market research
InG02	2. We are slow to detect changes in our customers' product preferences
InG03	3. We often talk with or survey those who can influence our end users' purchases (e.g. retailers, distributors)
InG04	4. We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners)
InG05	5. We collect information about the nature of our competitive advantage
InG06	6. We meet with customers at least once a year to find out which products or services they will need in the future

Table 12: Indicators of "Intelligence generation" construct

The items for in-house market research, recognizing changes in customer preferences, talking with those who can influence customer purchases, collecting industry information by informal means and meeting customers to assess future product and service needs are directly taken or slightly adapted from the MARKOR scale developed by Kohli et al.[477] The item for analyzing one's competitive advantage (InG05) is introduced by Kessell.[478]

[477] See Kohli et al. (1993), p. 476.
[478] See Kessell (2006).

4.2.2.2 Intelligence dissemination

Table 13 lists the intelligence dissemination indicators.

Indicator ID	Text
InD01	1. Nobody ion our company feels responsible for collecting market and competitor information
InD02	2. Our company periodically circulates documents (e.g. reports, newsletters) that provide information on our customers
InD03	3. We have developed a marketing plan in our company
InD04	4. We have interdepartmental meetings at least once a quarter to discuss market trends and developments
InD05	5. When one department finds out something important about competitors, it will immediately alert other departments
InD06	6. A lot of informal „hall talk“ in our company concerns our competitors' tactics or strategies
InD07	7. The activities of the different departments in our company are well coordinated

Table 13: Indicators of "Intelligence dissemination" construct

The items for documents containing customer information, interdepartmental meetings to discuss market trends, timely information of other departments when one department gains new intelligence about competitors and informal "hall talk" about competitors' strategies or tactics were also included in Kohli et al.'s MARKOR scale.[479] Items regarding the responsibility for collecting market and customer information and the development of a marketing plan were adopted from Kessell.[480] The item dealing with the coordination of different areas within the company originates from the responsiveness construct of the MARKOR scale but was reassigned to the intelligence dissemination construct in Kessell's scale.[481]

[479] See Kohli et al. (1993), p. 476.
[480] See Kessell (2006).
[481] See Kohli et al. (1993), p. 476; Kessell (2006).

4.2.2.3 Responsiveness

Responsiveness was operationalized via 8 indicators that are summarized in Table 14.

Indicator ID	Text
RES01	1. Analysis and understanding of different market segments have led to new product development efforts in our company
RES02	2. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion
RES03	3. We try to quickly assess in which market and for which customers our product is the best match
RES04	4. When we find out that customers are unhappy with the quality of our offering, we take corrective action immediately
RES05	5. Our business plans are driven more by technological advances than by market research
RES06	6. It takes us forever to decide how to respond to our competitor's price changes
RES07	7. Principles of market segmentation drive new product development efforts in our company
RES08	8. We are quick to respond to significant changes in our competitors' pricing structures

Table 14: Indicators of "Responsiveness" construct

All these indicators are derived from the MARKOR scale with the exception of the item for finding the best match of a new product to a particular market or customer segment.[482]

[482] See Kohli et al. (1993), p. 476; Kessell (2006).

4.2.3 The scales

The scales used are predominantly 7-point Likert scales with the exception of the indicators for company development stage, industry development stage, order of entry and objective company performance. The former three are measured via a selection out of explicitly described environmental scenarios that characterize the different stages or entry scenarios respectively. The latter is measured on a 7-point quantitative scale which is customized for each variable measured (e.g. revenue growth, employee growth). For the complete survey instrument refer to Appendix 8.2.

The next chapter will discuss the methodology of the empirical study, show the sample properties and present the quality assessment of the results.

5. Empirical study of market-driving behavior in emerging technology firms

With the theoretical groundwork laid (Chapters 2 & 3) and the questionnaire on hand (Chapter 4) the empirical investigation of the research model and hypotheses was started. The empirical study was conducted on a set of 224 emerging – i.e. young, technology savvy and growth oriented – companies. As discussed in Chapter 2 these companies possess unique characteristics, liabilities and strengths which make them particularly worthwhile objects for the study of market-driving behavior. Their dynamism, innovativeness and entrepreneurial character should provide the preconditions for acting in a market-driving way.

First, details about the data collection process are discussed. In a second step key sample properties will be reviewed. Finally the statistical analysis of the measurement and structural models will be presented.

5.1 Data collection

The following sections will explain the process for selecting companies for the sample, the survey procedure itself and the editing of the sample data before the statistical analysis was conducted.

5.1.1 Selection of target companies for survey

In a joint effort by the author together with other PhD candidates from RWTH Aachen a comprehensive database of emerging firms in the German high tech sector has been created. Starting point was a larger database by the German chamber of industry and commerce (IHK) which contained all business start-ups in Germany during the past approximately 50 years. Out of the database a sub sample was generated in a first step that contained companies which met the following criteria:

1. Age no older than 12 years – i.e. market entry in 1994 or later
2. Original start-up by one or a group of founders – i.e. excluding derivative ventures
3. High tech companies according to their industry classification code

The definition of high tech companies utilized was developed by the German Fraunhofer Institut and comprised industries that were identified as knowledge intensive, high technology or advanced technology industries based on criteria such as

their R&D share of revenue and share of academics within the workforce.[483] This first step yielded a sub sample of ~31,000 out of the initial 500,000+ companies.

The second step was a manual validation of 6,000 randomly selected companies out of this pool. The companies were individually looked up on the Internet, their data checked and information complemented where available. Key data points for verification were founding date of the company, whether it was an original (by one individual or a group of founders) or derivative (i.e. by another company) start-up, number of employees and a contact person (ideally the founder/ managing director).
This step left 1,800 companies who explicitly fulfilled or at least had not been identified as violating the demanded criteria.

5.1.2 Survey procedure

These 1,800 companies were contacted via e-mail (initial contact and up to two reminders) and asked to participate in the survey. In order to do so they were provided with a link to the online survey and an individual password that could only be used once for participating in the survey. Apart from the online survey potential participants were also offered the possibility to receive a PDF file which they could print, fill in and return via regular mail or fax. Until the survey was closed after a four week response window, 280 companies participated for a total response rate of 15.5%.

5.1.3 Sample representativeness

To ensure that the generated sample was representative in terms of the companies that responded a comparison between the original database and the sample responses was conducted. Therefore the zip code breakdown for the two groups was compared. As can be seen in Figure 9 there was no major distortion in the composition between the two. The largest discrepancy occurred in the PLZ 7 area. Overall the sample can be considered representative of the population as a whole.

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[483] The definitions were developed by the Fraunhofer Institut Systemtechnik und Innovationsforschung; see e.g. Grupp and Legler (2000).

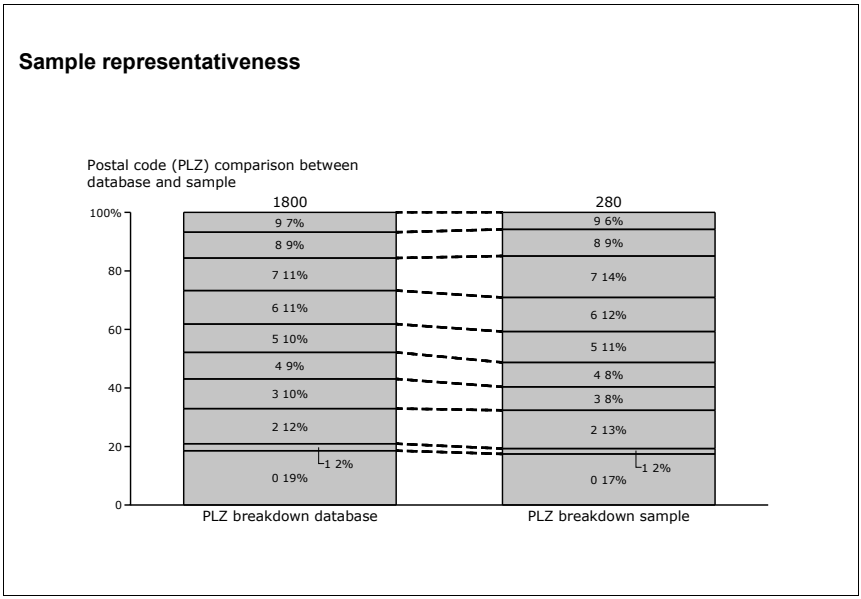

Figure 9: Sample representativeness

5.1.4 Removal of unsuitable answers

The 280 responses were subjected to a final screening with regard to eligibility to participate in the study. 41 responses had to be eliminated because they did not meet the age criteria. Another 13 responses were eliminated because they belonged to derivative and not original start-ups. Finally, two responses were not considered due to their answer behavior. Their answer was a 4 on the 1 to 7 scale in 97 out of 98 applicable cases which suggested that the respondent had just "clicked through" the survey without actually reading and answering the questions. This left a total of 224 valid responses for the statistical analysis.

5.1.5 Data editing

First the answers to the reverse coded questions were reversed in order to be able to include these answers in the normal model calculations. Secondly, the data was reviewed with respect to the need for eliminating cases because of insufficient answers. Due to the structure of the survey – most questions were mandatory to

continue the survey[484] – the maximum percentage of unanswered items was 9%. This is significantly below the 30% threshold suggested by Roth & Switzer.[485] However there were certain indicators – particularly in the area of financial information – with a significant share of non-responses. As a consequence 5 out of 9 indicators of the objective performance construct had to be eliminated. This also ruled out the possibility to use the objective performance construct in further model calculations.

Finally the remaining missing values in the data set were replaced. This is appropriate if the share of missing values is limited and these values do not show a systematic pattern. Both these conditions were met. The values were estimated using the "Expectation Maximization" or "EM" algorithm in SPSS. This procedure was chosen because it least distorts the data and at the same time can be implemented with reasonable effort. The alternative procedures which are described in the literature either lead to a stronger bias in the resulting data – as in the case of elimination and simple imputation procedures[486] – or are more complex to implement – as in the case of multiple imputation.[487]

5.1.6 Analysis of non-response and informant bias

In order to draw conclusions from the sample data to the population as a whole it is necessary to ensure that the sample data does not contain systematic bias. The adjusted data was therefore checked for non-response and informant bias. To test for non-response bias a test of the mean variances between early and late respondents was conducted as suggested by Armstrong & Overton.[488] The logic underlying this procedure is that answers of non-respondents would likely be similar to those of late respondents.[489] The results showed significant differences between the answers of the two groups only for 8 out of 98 indicators which is indicative of a low probability of non-response bias.

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[484] This survey structure had a positive impact on the number of usable responses but most likely led to a lower response rate because participants that did not want to answer a particular question probably cancelled the survey at that point. E-mails received from respondents who did not finish the survey support this notion.

[485] See Roth and Switzer (1995), pp. 1010f.

[486] See Vriens and Melton (2002), p. 14; Peters and Enders (2002), p. 81.

[487] See Dördrechter (2006), p. 213.

[488] See Armstrong and Overton (1977).

[489] See Armstrong and Overton (1977), p. 397.

An informant bias is a systematic measurement error that results from the difference between the subjective perception of the informant and the "theoretically true" value.[490] A main root cause of informant bias is the difference in information and perceptions between different hierarchical levels and functional areas within a company.[491] Such a hierarchical and functional specialization is usually not yet developed in emerging firms. Therefore the risk of an informant bias is considered to be limited.[492]

Due to the focus on managing directors as participants in the survey the number of other informants was not sufficiently large to test for informant bias via a group comparison.

5.2 Sample properties

The remaining sample of 224 respondents is a good cross-section of emerging companies from a variety of industries. It also varies with regard to the age and size of companies represented and contains firms from the different development stages necessary for the group analysis. Following is a more in-depth analysis of the sample.

5.2.1 Industries represented in the sample

The sample represents a balanced mix of industries as can be seen in Figure10. The largest single group is companies from the IT, Software and Internet area. But there are also significant numbers of companies from professional services, construction and real estate, engineering, and electronics. There are about equal shares of more traditional industries like construction, engineering, automotive or retail trade than of more modern industries like IT, biotechnology or nanotechnology.

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490 See Bagozzi et al. (1991), pp. 423f.

491 See Ernst (2003), p. 1267.

492 Meier (2005) and Hiddemann (2006) argue along the same lines with regard to private equity companies and emerging firms; see Meier (2005), pp. 126f and Hiddemann (2006), p. 92.

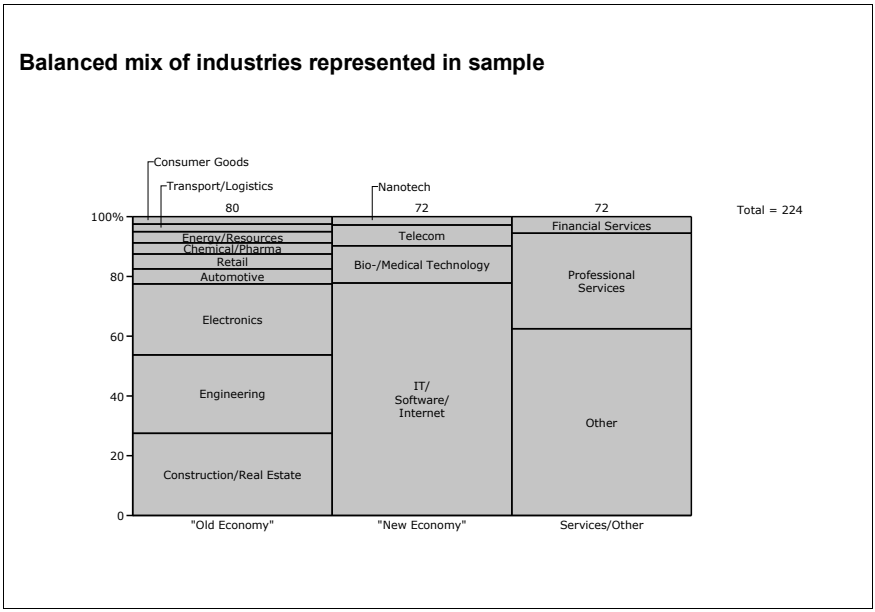

Figure 10: Industries represented in the sample

5.2.2 Age, Size and Stages of sample companies

The sample contains has a good cross section of companies in terms of age and size (see Figure 11). The companies are on average a little over 6 years old and predominantly have less than 20 employees. The distribution over the different ages is fairly balanced with the exception of nine year old companies which exhibit a relatively low count. However, this might be due to an overstatement of the 10 year old companies which at 27 cases appear relatively high. Apart from this discontinuity also a peak in numbers in the period between 1998 and 2001 is visible which coincides with the well-known "New economy" boom during those years. The significant amount of IT, software and Internet companies discussed in the previous sub-chapter lends credibility to this interpretation. This perspective also suggests that the target of sampling emerging technology companies was actually achieved. That emerging companies have been sampled can also be seen when looking at the age distribution.

The vast majority of companies employs between 4 and 19 people and only 5 companies have a workforce larger than 100 employees.[493]

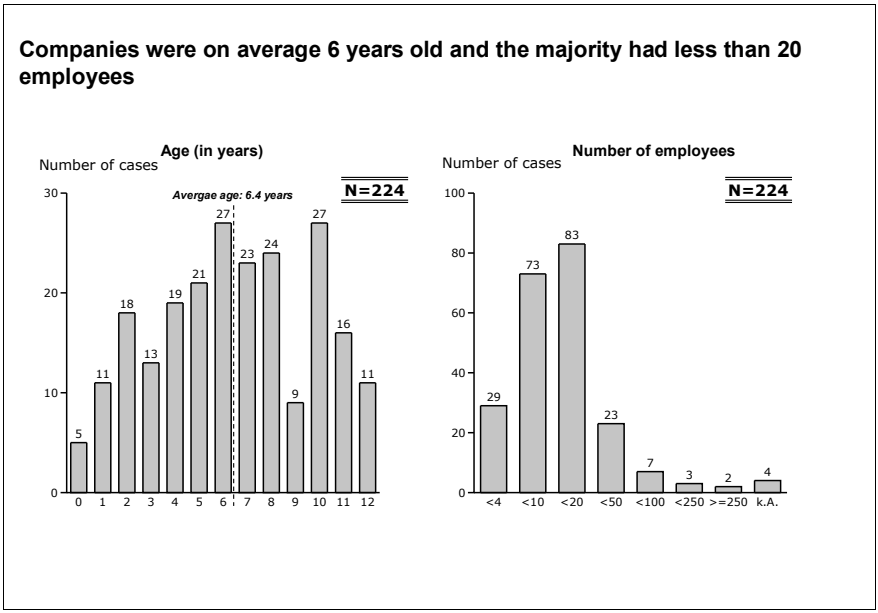

Figure 11: Age and Size of sample companies.

All relevant stages for the intended group comparisons are also present in the sample. Concerning company lifecycle phase there are 12 companies in the conception stage, 48 in the foundation stage, 75 in the growth stage, 63 in the consolidation stage and 26 in the maturity stage. In terms of industry development stage there are 13 companies in the introduction stage, 82 in the growth stage, 84 in the consolidation stage and 45 in the maturity stage. With respect to market entry timing there are 28 companies who are pioneers, 76 who are early followers – who entered the industry before the dominant design had emerged – and 120 who are late followers. Because of the statistical requirements of the PLS approach these stages had to be aggregated into groups in order to meet the minimum sample size requirements. For all three moderators an early and a late phase were formed. The early company phase encompassed companies from the concept, foundation and growth phases. The late

[493] Four companies did not provide information about the number of employees.

company phase consists of the companies in the consolidation and maturity phases. The early industry phase aggregates the introduction and growth stages while the late industry phase includes the consolidation and maturity stages. Finally pioneers and early followers were subsumed to form the group of companies with an early market entry while late followers constitute their own group which is characterized by late market entry. Figure 12 visualizes this sample breakdown.

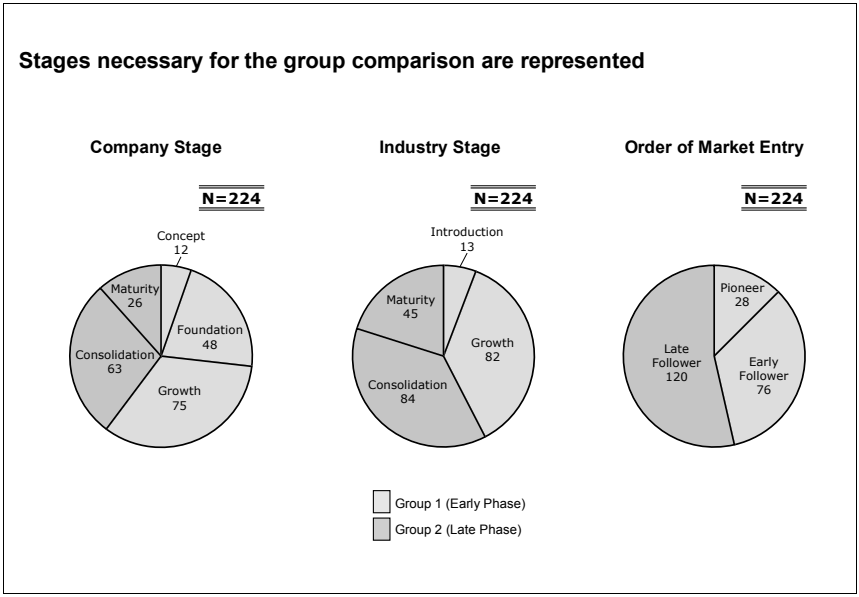

Figure 12: Stages of participating companies.

5.3 Data analysis

The data analysis comprises three main steps. First, constructs need to be specified regarding their reflective vs. formative nature (Chapter 5.3.1). Second, a suitable analytical method needs to be selected (Chapter 5.3.2). Finally, the quality of the measurement models and the structural model needs to be examined (Chapter 5.3.3 – 5.3.5). The interpretation of the results will be discussed in Chapter 6.

5.3.1 Specification of constructs

To be able to assess the quality of the measurement models it is important to know whether a particular construct has a reflective or a formative specification. In the case of a reflective specification the causality is from the construct to the indicators, i.e. the construct is "reflected" by its indicators. On the other hand, in the case of a formative specification the causality is from the indicators to the construct, i.e. the construct is "caused" by its indicators.[494] Whether a construct is more appropriately specified as reflective or formative is a question that should be addressed by a qualitative, theoretical discussion of the content of the construct.[495] Jarvis et al. propose a number of decision rules to determine the correct specification. These are presented in the following table.

Dimension	Formative Model	Reflective Model
Direction of causality	• From indicators to construct • Indicators are defining characteristics of the construct • Changes in indicators cause changes in construct domain	• From construct to indicators • Indicators are manifestations of the construct • Changes in construct cause changes in indicators
Interchangeability of indicators	• Indicators are not interchangeable • Dropping an indicator may alter the domain of the construct	• Indicators are interchangeable • Dropping an indicator should not alter the domain of the construct
Covariance among indicators	• Covariance not necessary • Change in one indicator need not be associated with changes in the other indicators	• Covariance expected • Change in one indicator should be associated with changes in the other indicators
Nomological net of indicators	• Nomological net for indicators may differ • Indicators are not required to have the same antecedents and consequences	• Nomological net for indicators should not differ • Indicators should have the same antecedents and consequences

Table 15: Decision rules to determine construct specification
Source: Derived from Jarvis et al. (2003), p. 203

Based on those decision rules an evaluation of the market-driving behavior constructs, the market-driven behavior constructs, the performance construct and the moderator constructs was conducted.

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494 See Chin (1998), p. ix; Jarvis et al. (2003), p. 200.
495 See Jarvis et al. (2003), pp. 202f; Diamantopoulos and Winklhofer (2001), p. 274.

The construct "customer-driving behavior" should be specified as reflective. The indicators are manifestations of the construct. Furthermore the indicators are similar in content (e.g. not waiting for customer feedback to take action vs. addressing latent rather than expressed needs) and can therefore be considered interchangeable. Dropping one indicator would not alter the domain of the construct. A change in one indicator will likely go along with changes in the other indicators, e.g. if the company introduces products that are intended to make customers change their preferences it has to provide superior benefits or at least make customers rethink the value they attribute to certain features. Finally the items have similar antecedents and consequences, e.g. they all encourage customers to change their perceptions and behaviors.

Likewise "competitor-driving behavior" should be viewed as a reflective construct. The indicators are manifestations of a behavior that seeks to alter competitor structures and behaviors. They also have a similar content in that all items reflect actions targeted at competitors to enhance the own competitive position. In that respect they also lead to the same consequences. Indicators will like co-vary with one another, e.g. establishing one's products as standards or initiating new rounds of competitive activities can serve as roadblocks for competitors.

"Channel-driving behavior" is another reflective construct. Items are closely correlated, share similar content and are derived from the same nomological net. E.g. developing new channels should go along with increased control over the company's channels. And increased control should enable the company to get its channel partners to accept new roles and responsibilities. The indicators are also manifestations rather than defining characteristics of the construct.

The same reflective specification applies to "regulator-driving behavior". Items reflect a behavior that seeks to influence regulators, e.g. by persuading them with arguments, participating in standardization consortia or changing the positions represented by industry associations. Indicators are correlated and have the same antecedents and consequences. They are not interchangeable but dropping one indicator would not alter the domain of the construct. The causality is from the construct to the items.

"Multiplier-driving behavior" can also be evaluated as having a reflective specification. Causality runs from the construct to the indicators. Although indicators

are differing in content they should nevertheless be correlated and are based on the same nomological net. A company that employs multiplier-driving behavior seeks to interact and utilize for its purposes such different multipliers as the media, business partners or financial analysts.

The final market-driving behavior dimension which is also a reflective construct is "employee-driving behavior". It is about influencing employees by encouraging and rewarding proactive and innovative behavior. Items have a similar content and are derived from the same nomological net. E.g. allowing employees to dedicate part of their time to their own projects should encourage proactive behavior and the development of innovative ideas. Therefore a covariance between indicators can be assumed.

The market-driven behavior constructs "Intelligence generation", "Intelligence dissemination" and "Responsiveness" are formative. Here the causality runs from the indicators to the constructs. Items are not necessarily correlated and can not be interchanged. Antecedents and consequences vary between indicators within each individual construct. This specification has also been chosen by Claas (2006) and Kessell (2006) in their studies of market orientation in emerging firms.[496]

Because of the data insufficiency the objective company performance construct could not be used in the model calculations.[497] Therefore the "subjective performance" construct was utilized. This construct has a reflective specification. Causality runs from the construct to the indicators. Indicators like product success, number of new customer acquisitions, company growth and overall development of the company are clearly correlated. They might not be interchangeable but eliminating one item will not result in a change of the construct domain.

The moderators have also been developed as reflective constructs. Indicators for "market turbulence", "technology turbulence", "competitive intensity", "regulation intensity", and "degree of innovation" are interchangeable and should co-vary significantly. Causality is from the construct to the items. The indicators within a construct have the same antecedents and consequences.

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[496] See Claas (2006); Kessell (2006).
[497] See Chapter 5.1.4 for the discussion of missing values and data availability.

The evaluation of the individual constructs is detailed in the following table.

Construct	Direction of Causality	Interchangeability of items	Covariance between items	Nomological net of indicators	Overall specification
Customer-driving behavior	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Competitor-driving behavior	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Channel-driving behavior	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Regulator-driving behavior	• Reflective	• Ambiguous	• Reflective	• Reflective	• Reflective
Multiplier-driving behavior	• Reflective	• Ambiguous	• Reflective	• Ambiguous	• Reflective
Employee-driving behavior	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Intelligence generation	• Formative	• Formative	• Formative	• Formative	• Formative
Intelligence dissemination	• Formative	• Formative	• Formative	• Formative	• Formative
Responsiveness	• Formative	• Formative	• Formative	• Formative	• Formative
Subjective performance	• Reflective	• Ambiguous	• Reflective	• Reflective	• Reflective
Market turbulence	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Technology turbulence	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Competitive intensity	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Regulation intensity	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective
Degree of Innovation	• Reflective	• Reflective	• Reflective	• Reflective	• Reflective

Table 16: Specification of constructs using Jarvis et al.'s decision rules
Source: Own elaboration derived from Jarvis et al. (2003).

5.3.2 Selection of analytical method

The objective of this work is to investigate the effect of market-driving behavior and market-driven behavior on company performance in a variety of environments. The interaction of a number of variables is therefore to be analyzed. Multivariate methods are required to examine these interactions. Fornell differentiates first and second generation procedures.

First generation techniques like e.g. multiple regression, principal component, factor or cluster analysis share four major shortcomings. First, they can only analyze observable variables. Second, the majority of these methods assumes the absence of measurement error. Third, first generation techniques can only be applied to simple model structures. And fourth, many of these approaches can only be applied to exploratory and not confirmatory types of analysis.[498] For the study of market-driving behavior in emerging firms, however, it is necessary to analyze latent variables which are measured via a set of indicators. This introduces measurement error into the model. Moreover, complex relationships between multiple constructs are to be investigated and the research set-up is confirmatory rather than exploratory. First generation methods are therefore not applicable.

Second generation techniques like e.g. canonical correlation, partial least squares (PLS) or covariance structure analysis overcame the limitations of first generation methods in that they can handle latent variables, account for measurement error, map more complex structures and conduct confirmatory analyses.[499] Structural equation modeling (SEM) is a second generation technique that is designed to analyze directional relationships between latent variables.[500] Because of these properties SEM is an appropriate analytical method for the empirical study in this thesis.

There are two types of methods to estimate structural equation models: covariance-based and variance-based procedures. Covariance-based approaches aim to minimize the difference between the empirical and the theoretical covariance matrix.[501] Variance-based approaches aim to minimize the variance of all dependent, latent variables. The partial least squares (PLS) approach is the most popular variance-based method.[502] Well-known software implementations for the covariance-based method are LISREL[503] or AMOS[504] whereas the variance-based procedure is e.g. implemented in the software PLS-Graph[505].

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498 See Fornell (1987), pp. 408-411.
499 See Fornell (1987), pp. 409ff.
500 See Fornell and Bookstein (1982), pp 440ff; for a short introduction into SEM fundamentals also see Meier (2005), pp. 70-73.
501 Covariance-based approaches were originally devised by Jöreskog, Keesling and Wiley; see Jöreskog (1970); Keesling (1972); Wiley (1973).
502 The development of the PLS approach is attributed to Wold; see Wold (1980); Wold (1985); also Lohmöller (1989).
503 See Jöreskog and Sörbom (1989).

Chin & Newsted recommend six criteria to determine whether the variance-based PLS approach should be preferred over a covariance-based approach.[506] These criteria and the evaluation of the present research study with regard to the preferable approach are presented in the following table.

Criterion	Covariance-based approach suitable for	Variance-based PLS approach suitable for	Preferable approach for own empirical study
Research goal[507]	• Exploration	• Prediction	• PLS
Measurement instrument	• Established	• Not yet established	• PLS
Model structure[508]	• Simple (few items)	• Complex (many items)	• PLS
Data distribution assumptions[509]	• Multi-normal	• None	• PLS
Size of required sample[510]	• Large	• Small	• PLS
Causality of constructs within measurement model[511]	• Reflective constructs only	• Reflective and formative constructs	• PLS

Table 17: Decision criteria for covariance-based vs. variance-based approach
Source: Own elaboration derived from Chin & Newsted (1999), pp. 335-337.

The evaluation above clearly shows that the PLS approach is preferable for the intended research study which focuses on predicting the impact of market-driving behavior[512], cannot utilize an established measurement instrument[513], has a complex model structure with a large number of indicators, will most likely not conform with the condition of multi-normally distributed data[514], aims to generate stable results even for smaller sample sizes, and includes reflective as well as formative indicators in its

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504 See e.g. Byrne (2001).
505 See Chin (1998), pp. 295ff..
506 See Chin and Newsted (1999), pp. 335-337.
507 See Fornell and Bookstein (1982), p.450; Fornell (1987), pp. 408ff.
508 See e.g. Wold who states that "in large, complex models with latent variables PLS is virtually without competition"; Wold (1985), p. 590
509 See Fornell and Bookstein (1982), p. 443.
510 See Chin (1998), p. 316; Haenlein and Kaplan (2004), p. 295; Fornell and Bookstein (1982), p.450.
511 See Chin (1998), pp. 295ff; In addition to regular formative constructs PLS also allows for the analysis of second-order constructs modelled as being caused by first-order latent variables – a further advantage over covariance-based procedures such as the ones implemented in LISREL which is relevant to my empirical study; see Chin (1998), p. x.
512 The present research study also has an explorative character, however, when it comes to determining the dimensions of market-driving behavior.
513 See Chapter 4 for the detailed discussion of the measurement instrument employed in the empirical study.
514 This assumption has been found to be absent in most studies of business research; see e.g. Betzin and Henseler (2005), p. 50.

measurement models. The potential problem of "consistency at large"[515] – which is among the most often cited critiques of the PLS approach - will be mitigated by using multiple indicators to measure constructs and by surveying a sufficiently large sample.[516] It is therefore not considered critical. The PLS method is thus chosen to analyze the sample data.[517] Following is a very brief introduction into the methodology of the PLS approach.

The PLS algorithm arrives at model estimates in a four-step iterative process that is illustrated in Figure 13.

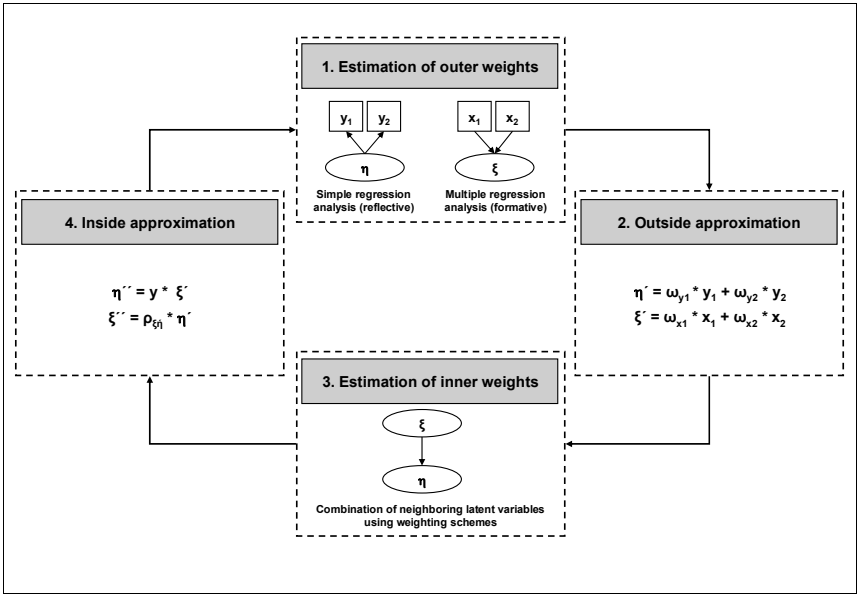

Figure 13: PLS algorithm

Source: Derived from Hänlein (2004)[518]

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[515] The problem is that variance-based procedures tend to overestimate loadings and underestimate path coefficients. The parameters estimated with the PLS method converge towards the real parameters only with increasing sample size and number of indicators per latent variable; see Bagozzi et al. (1991), p. 19; Fornell and Cha (1997), p. 67; Haenlein and Kaplan (2004), p. 292.; McDonald (1996), p. 248.

[516] See Wold (1980), p. 67; Lohmöller (1989), pp. 213-216.

[517] The program used to calculate the results for the measurement and structural models is PLS-Graph Version 3.0 Build 1126 developed by Soft Modelling Inc.

[518] See Haenlein (2004), p. 69.

First, weights (ω) for the reflective and formative indicators are estimated through simple or multiple regressions. The first iteration starts with arbitrary values to start the estimation procedure. In a second step, the estimated weights are used to aggregate the indicator values to latent variable scores (η´; ξ´). This step is called outer approximation. The third step is the estimation of the path coefficients (y; ρ) between constructs. This is done by minimizing the unexplained variance of the dependent variable with the ordinary least square method. Finally, new construct values (η´´; ξ´´) are estimated by weighting the latent variable scores which have a direct relationship to the construct with their path coefficients. This is called inner approximation. This iterative process continues until the estimated parameters have converged.

5.3.3 Assessment of model quality

Before the structural model can be tested for significant relationships the measurement models have to show sufficient levels of validity and reliability.[519] It is important to distinguish between reflective and formative measurement models[520] because they require different tests. Table 18 shows the tests and threshold values employed in this study which will be discussed in more detail below.

Model type	Quality assessment dimension	Definition	Threshold Value(s)
Reflective measurement models	Content validity	Items adequately capture the content of the construct	Expert interviews
	Indicator reliability	Indicator variance is explained by variance of the latent variable rather than measurement error	Item loadings > 0.707 and T-Values significant
	Construct reliability	Construct variance is explained by variance of the indicator variables rather than measurement error	Cronbach's alpha > 0.7 Composite Reliability > 0.7 AVE > 0.5
	Discriminant validity	"[D]egree to which measures of distinct concepts differ"[521]	Correlation of items with own constructs higher than with any other construct Square root of AVE > correlation of construct with any other construct
	Nomological validity	Causality of relationship between construct and indicator	Assessment via global test criteria

[519] See Fornell and Larcker (1981), p. 45.
[520] See Chapter 5.3.1 for a discussion of the differences between the two types of relationships.
[521] Bagozzi and Phillips (1982), p. 469

Formative measurement models	Content validity	Items adequately capture the content of the construct	Expert interviews
	Indicator relevance	Magnitude of contribution of each items to its corresponding LV	Interpretation of weights and T-Values
	Multicollinearity	Assessment of linear dependence between indicators	Correlation coefficient < 0.9 VIF < 10 Condition Index < 20
	Nomological validity	Causality of relationship between construct and indicator	Assessment via global test criteria
Structural model	R^2	Fit of structural model with the empirical data set	Not specified
	Q^2	Predictive relevance of structural model	$Q^2 > 0$
	Path coefficients	Strength of relationship between independent and dependent variable	Path coefficients > 0.2

Table 18: Test criteria and threshold values for model evaluation
Source: Own elaboration compiled from various sources

5.3.3.1 Quality assessment of reflective measurement models

The **content validity** of reflective constructs evaluates if the different indicators appropriately capture the content domain of the construct. Bollen explains content validity as "a qualitative type of validity where the domain of a concept is made clear and the analyst judges whether the measures fully represent the domain".[522] There is thus no threshold of a particular statistical criterion to assess content validity. However, because the indictors employed to measure the constructs of this investigation are mainly drawn from scales previously used in the literature and have been tested and refined in expert interviews a sufficient content validity can be assumed.

The **indicator reliability** indicates which portion of the variance of the indicator is explained by the latent variable. A reflective indicator is considered reliable if it shares more variance with its underlying construct that with the measurement error.[523] This implies that indicator loadings should exceed a value of 0.707.[524] However, a significant range of threshold values can be found in the literature. Herrmann et al. suggest a conservative test criterion of 0.8 for established scales.[525] On the other hand, Hulland considers a value as low as 0.4 as appropriate for newly developed

[522] Bollen (1989), p. 185.
[523] See Carmines and Zeller (1979), p. 27; Krafft et al. (2005).
[524] See Chin (1998), p. 325; The threshold value of 0.7 which is often cited in the literature is only an approximation of the more exact value 0.707 which is the square root of 0.5.
[525] See Herrmann et al. (2006), p 56.

measurement instruments.[526] Low loadings are a sign for "(1) a poorly worded item, (2) an inappropriate item, (3) an improper transfer of an item from one context to another. The first problem leads to low reliability, the second to poor content (and construct) validity, and the last to nongeneralizability of the item across contexts and/or settings."[527] Even though the market-driving behavior scale utilized in this study is a newly developed measurement instrument - with only one previous study covering part of the scale's constructs – a threshold value of 0.7 will nevertheless be used in order to ensure maximum reliability of the tested scale.

Construct reliability is given when the items of a construct are highly correlated.[528] It shows how well a construct is measured by its indicator variables. In the analysis of PLS results researchers typically employ Cronbach's alpha, composite reliability and average variance extracted (AVE) as measures of construct reliability. Cronbach's alpha is the mean of all inter-item correlations. A value of 0.7 or above is generally considered to show an acceptable level of construct reliability.[529] Composite reliability is a modified version of Cronbach's alpha which does not assume equal weighting of indicators.[530] The postulated threshold value for this reliability test is also 0.7.[531] The AVE allows estimating the magnitude of measurement error. If the AVE is smaller than 0.5 the measurement error is greater than the variance captured by the indicators of a latent variable.[532] AVE should therefore exceed the threshold value of 0.5.

Item discriminant validity is assessed by looking at the cross-loadings between the indicators of all reflective constructs and all reflective and formative constructs. The condition is that no indicator may possess a higher loading with regard to any other construct than the one it is intended to measure.[533]

According to Fornell & Larcker **construct discriminant validity** is given if the AVE of a latent variable is bigger than any squared correlation of than latent variable with

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526 See Homburg and Giering (1996), p. 13; Homburg and Baumgartner (1995), p. 172.
527 Hulland (1999), p. 198.
528 See Krafft et al. (2005), p. 74.
529 See Nunally (1978), pp. 245f
530 See Chin (1998), pp. 320f.
531 See Nunally (1978), p. 245.
532 See Fornell and Larcker (1981), p. 45.
533 See Chin (1998), p. 321.

another latent variable.[534] Put differently the square root of the AVE of a construct needs to be bigger than any correlation of that construct with another construct in the model.

Finally, the **nomological validity** has to be proven. It is assumed that nomological validity can be affirmed if the global quality assessment criteria for the structural model are met. These will be discussed in Chapter 5.3.3.3.

5.3.3.2 Quality assessment of formative measurement models

Formative constructs require a different treatment than reflective constructs when assessing their quality. In analogy to reflective constructs the **content validity** of formative constructs is tested by asking experts to assess whether the indicators properly describe the entire domain of the construct.

Indicator relevance is assessed by looking at the weights of indicators and their significance. The weight indicates the contribution of each item to its corresponding construct.[535] Chin suggests that "[t]he interpretation of LVs with formative indicators in any PLS analysis should be based on the weights."[536] Herrmann et al. propose a T-Value of 1.98 (two-tailed t-test) as a significance threshold.[537] However, an indicator with a low weight and significance can not simply be eliminated as in the case of reflective indicators because an important aspect of a construct might be lost and the content of the latent variable thus changed.[538]

An assessment of discriminant validity for formative constructs is of little use because a strong inter-item correlation for them is not required. Rather **multicollinearity** among indicators needs to be assessed. Belsley explains that two or more indicators are collinear "[…] if one of the vectors that represent them is an exact linear

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534 See Fornell and Larcker (1981), p. 46; after its authors this criterion is also known as the "Fornell-Larcker-Criterion".
535 See Götz and Liehr-Gobbers (2004), p. 728.
536 Chin (1998), p. 307.
537 See Herrmann et al. (2006), p. 61.
538 See Jarvis et al. (2003), p. 202; Bollen and Lennox (1991), p. 308.

combination of the others […]"[539] A certain degree of multicollinearity is inherent in every data set and is uncritical but too strong levels of it present a problem.[540]

Threshold values have been established for three measures of multicollinearity: the correlation coefficient, the variance inflation factor (VIF) and the condition index (CI). Hair observed that "[t]he presence of high correlations (generally those of 0.90 and above) is the first indication of substantial collinearity."[541] Following his argumentation a threshold value of 0.9 will be utilized in this study. But as the correlation coefficient only permits the pairwise analysis of indicators it is also necessary to check if indicators can be constructed as linear combinations of each other.[542] This is done by calculating the tolerance or its inversion – the variance inflation factor (VIF). "These measures tell us the degree to which each independent variable is explained by the other independent variables."[543] Harmful multicollinearity is usually assumed for VIFs of 10 or greater.[544] In line with the literature a VIF threshold of 10 will be adopted for this study. A final measure of multicollinearity suggested in the literature is the condition index (CI). Substantial multicollinearity is attributed to CIs of 30 or greater.[545] Values between 15 and 30 have been referred to as being "borderline"[546]. For this study a conservative threshold value of 20 will be applied.

Nomological validity – as in the case of reflective indicators – is judged by observing global quality assessment criteria for the structural model. These will be discussed next.

5.3.3.3 Quality assessment of structural model

After the measurement models have been evaluated and found to display satisfactory test results, the structural model can receive further scrutiny. To evaluate the overall

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539 Belsley (1991), p. 19.
540 See Belsley (1991), p. 21.
541 Hair (1995), p. 172.
542 See Krafft et al. (2005), p. 79.
543 Hair (1995), p. 127.
544 See Marquardt (1970), pp. 606ff.; Herrmann et al. (2006), p. 61.
545 See Krafft et al. (2005), p. 79.
546 See Belsley et al. (1980), p. 153.

model quality the measures R^2, Stone-Geisser's Q^2 and the path coefficients can be analyzed.[547]

The coefficient of determination R^2 is used to determine the explanatory power of a structural model. R^2 is defined as "the proportion of the total variation of y (about its mean $\bar{y}$) that is explained (accounted for) by the fitted model."[548] It is calculated as follows:

$$R^2 = 1 - \frac{\sum_{n=1}^{N}(y_n - \hat{y}_n)^2}{\sum_{n=1}^{N}(y_n - \bar{y})^2},$$

where y_n is the construct score of the endogenous variable estimated with the n^{th} set of its indicators, $\bar{y}$ the arithmetic mean of all construct scores y_n, and $\hat{y}_n$ is the construct score calculated on the basis of the case values of the n^{th} exogenous variable.[549] The values R^2 can adopt fall in the range between 0 and 1 – 0 signifying that the exogenous variables are unable to explain the variance of the endogenous variable while 1 indicates that all of the variance of the endogenous variable can be explained by the exogenous variables.[550] A threshold value is difficult to establish because it very much depends on the particular research problem which value can be seen as satisfactory.[551]

R^2 measures the fit between the model and the sample data utilizing the entire data set. It does not, however, provide information about the predictive power of the model. This so-called predictive relevance is measured by the Stone-Geisser test criterion **Q^2**. The PLS implementation of Q^2 "follows a blind-folding procedure that omits a part of the data for a particular block of indicators during parameter estimations and then attempts to estimate the omitted part using the estimated parameters. This procedure is

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547 See Chin (1998), p. 316.
548 Kvalseth (1985), p. 281.
549 See Kvalseth (1985), p. 281.
550 See Kvalseth (1985), p. 281.
551 See Backhaus et al. (2003), p. 96.

repeated until every data point has been omitted and estimated."[552] It is calculated as

$$Q^2 = 1 - \frac{\sum_{d=1}^{D} E_d}{\sum_{d=1}^{D} O_d},$$

where E_d is defined as the sum of squares of prediction errors, O_d as the sum of squares of errors using the mean for prediction and D is the omission distance[553].[554] For values of $Q^2 > 0$ the model can be considered to have predictive relevance.[555]

Apart from the analysis of fit and predictive relevance the magnitude and significance of the **path coefficients** in the structural model should be analyzed to find out, which exogenous constructs have the strongest impact on the endogenous variable(s). The path coefficients are calculated by the PLS algorithm but the corresponding significance (T-Value) of each path coefficient has to be determined via resampling techniques such as the jackknife or bootstrap. The bootstrap method[556] is chosen in this study as the jackknife is just an approximation of the bootstrap requiring less computational time but also delivers inferior results.[557] Regarding the **magnitude** of the path coefficients Chin suggests a threshold of at least 0.2 for path coefficients to express a meaningful influence of the exogenous on the endogenous variable.[558] This criterion will not, however, be rigorously applied because of the newness of the research topic. Weaker paths may still contain valuable insights and will only be excluded from the discussion of the results if they are not significant.

The **significance** criterion is established via a critical t-value that needs to be exceeded for path coefficients to be significant. This t-value can be calculated using compromise power analysis[559]. This technique determines the critical t-value as well as α and β

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552 Chin (1998), p. 317.

553 As suggested by Chin this study will employ an omission distance of 131 which is a prime integer falling between the number of indicators and the number of cases; see Chin (1998), p. 318.

554 See Chin (1998), p. 317.

555 See Krafft et al. (2005), p. 85; Chin (1998), pp. 310ff.

556 For a detailed description of the bootstrap method refer to Efron (1979), pp. 1ff and Efron and Tibshirani (1993).

557 See Efron and Tibshirani (1993), pp. 145f; Efron and Gong (1983), p. 39.

558 See Chin (1998), p. xiii.

559 For this study the program GPOWER was used to conduct the actual analysis. Details on this software can be found on the Internet at http://www.psycho.uni-duesseldorf.de/aap/projects/gpower/.

values for a given sample size, effect size and error ratio q = β / α.[560] The connection between these variables will be briefly discussed. The significance α represents the probability of committing a Type I error, i.e. of incorrectly rejecting a true null hypothesis[561] or of finding an effect where none exists.[562] β stands for the probability of committing a Type II error, i.e. of incorrectly accepting a false null hypothesis or of failing to detect a relationship where one exists. Closely linked to β is the concept of statistical power. The statistical power – defined as 1-β – expresses the probability of correctly rejecting a false null hypothesis, i.e. rightfully identifying a relationship where it exists.[563] The effect size measures the magnitude of a phenomenon in a population. "[…] the larger the effect size, the greater the degree to which a phenomenon manifests itself and the greater the probability it will be detected and the null hypothesis rejected."[564] The relationship between sample size, significance, effect size and statistical power are "such that each is a function of the other three"[565]. A graphical representation of these relationships is given in Figure 14.

[560] See Erdfelder et al. (1996), pp. 2ff.
[561] The null hypothesis in classical test theory states that no relationship between two variables of interest exists.
[562] See Baroudi and Orlikowski (1989), p. 88.
[563] See Baroudi and Orlikowski (1989), p. 88.
[564] Mazen et al. (1987), p. 370.
[565] See Cohen (1992), p. 156.

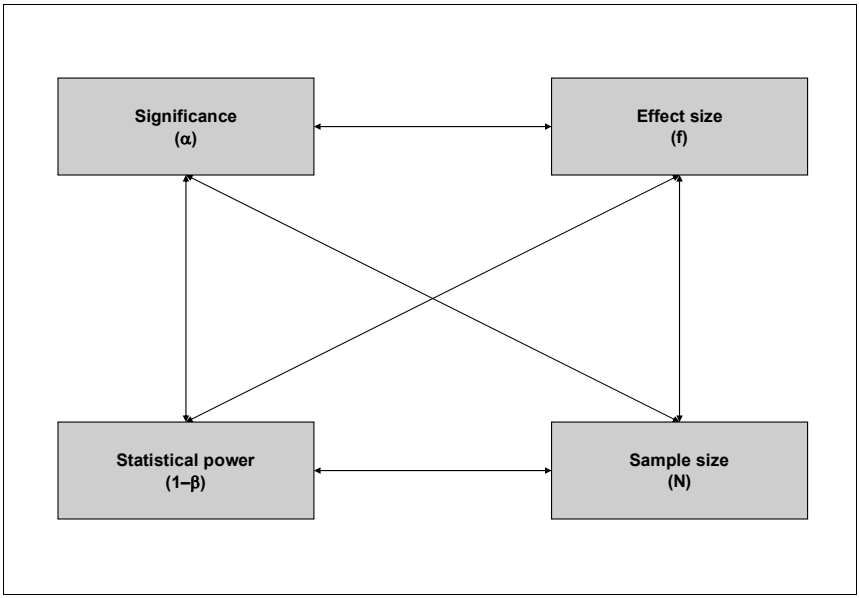

Figure 14: Statistical Power Analysis
Source: Own elaboration derived from Cohen (1992), p. 156

For this study sample size was 224. Baroudi & Orlikowski argue that in early stage research Type I and Type II errors can have equally negative consequences.[566] Therefore the error ratio q was selected as 1 giving equal importance to α and β errors. The effect size in management research is typically assumed to adopt small (0.10) to medium (0.25) values.[567] Effect size was coherently chosen as 0.15. The compromise power analysis with GPOWER yielded a critical t-value[568] of 1.3383 which will subsequently be applied. The corresponding α value was 0.1822 implying an 18% probability of declaring a relationship between latent variables that does not exist and statistical power was 0.8178 implying an 82% probability of detecting existing relationships between latent variables. In the face of the present research objectives this appears to be a good compromise.

[566] See Baroudi and Orlikowski (1989), p. 97.
[567] See Baroudi and Orlikowski (1989), pp. 90f.
[568] Two-tailed t-test with 222 degrees of freedom.

5.3.4 Evaluation of the measurement models: Validation of constructs

First, the reflective market-driving behavior constructs and the subjective success construct will be evaluated. Subsequently follows the assessment of the formative market-driven behavior constructs.

5.3.4.1 Reflective Constructs

As discussed in Chapter 5.3.1 the latent variables "Customer-driving behavior", "Competitor-driving behavior", "Channel-driving behavior", "Regulator-driving behavior", "Multiplier-driving behavior" and "Employee-driving behavior" are specified as reflective constructs. Likewise the subjective performance construct "Subjective success" is reflective.

The first step in evaluating these constructs is concerned with establishing content validity. This was done by conducting expert interviews during the pre-tests of the survey instrument. Pre-testers from both the academic and the managerial side confirmed the content validity of the selected indicators for the constructs in question.

Next, item and construct reliability and construct validity are evaluated. The construct "Customer-driving behavior" originally consisted of six indicators. Due to loadings significantly below the threshold of 0.7 three items had to be eliminated. The remaining three indicators show values well in excess of the demanded thresholds. Good validity and reliability can be assumed with a sufficient level of confidence as expressed by the high T-Values. Table 19 shows the detailed test metrics.

Customer Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,732
Composite Reliability:	0,847	AVE:	0,649
Indicator	**Question**	**Loading**	**T-Value**
CuD01	1. Wir führen regelmäßig neue Produkte/ Dienstleistungen ein, die unsere Kunden dazu bringen sollen, ihre Präferenzen zu ändern	0,795	13,8745
CuD02	2. Wir warten nicht immer erst auf Kunden-Feedback, um Wege zu finden, wie wir unseren Kundenservice verbessern können	eliminated	
CuD03	3. Wir versuchen Kunden dazu zu bringen, den Wert, den sie bestimmten Produkt-/ Serviceeigenschaften beimessen, zu überdenken	eliminated	
CuD04	4. Wir führen regelmäßig innovative Produkte/ Dienstleistungen ein, die gegenüber dem Wettbewerb einen überlegenen Nutzen bieten	0,855	17,2428
CuD05	5. Wir entwickeln oft Produkte/ Dienstleistungen, die eher latente als ausdrückliche Bedürfnisse adressieren (z.B. hatten Kunden vor Einführung des Mobilfunks ein latentes Bedürfnis, auch unterwegs zu telefonieren. Sie konnten dieses allerdings nicht ausdrücken, da es zu stark von bestehenden Vorstellungen über Telefonie abwich)	0,763	14,3688
CuD06	6. Wir führen regelmäßig Kampagnen/ Programme zur Kundenaufklärung durch	eliminated	

Table 19: Evaluation of construct "Customer-driving behavior"

Two out of five indicators of the "Competitor-driving behavior" construct had to be eliminated. After this elimination the construct passes all test conditions for item and construct reliability. The test statistics can be found in the following table.

Competitor Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,730
Composite Reliability:	0,841	AVE:	0,640
Indicator	**Question**	**Loading**	**T-Value**
CoD01	1. Unser Unternehmen übernimmt die Initiative, um Erschwernisse (z.B. beim Markteintritt, Zugang zu Vertriebskanälen, etc.) für unsere Wettbewerber zu schaffen	0,741	6,3143
CoD02	2. Unser Unternehmen führt regelmäßig Praktiken aus anderen Industrien ein, die auch die Arbeitsweise unserer Wettbewerber verändern	0,761	5,4487
CoD03	3. Die Initiativen unseres Unternehmens läuten oft neue Runden von Wettbewerbsaktivitäten (z.B. Preisanpassungen, Marketing-Kampagnen, Neuprodukteinführungen) ein	0,89	17,7834
CoD04	4. Unser Unternehmen versucht, die Anzahl der Wettbewerber im Markt zu verändern	eliminated	
CoD05	5. Unser Unternehmen wirkt oft auf Wettbewerber ein, um unsere Produkte/ Dienstleistungen als Standards zu etablieren	eliminated	

Table 20: Evaluation of construct "Competitor-driving behavior"

Reliability tests for the "Channel-driving behavior" construct led to two eliminations of indicators. One of the remaining items still possesses a loading of slightly less than the 0.7 threshold. It was retained nevertheless because at 0.696 it is virtually at the

threshold and because elimination would have worsened construct reliability rather than increased it. Table 21 presents the test values for this construct.

Channel Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,713
Composite Reliability:	0,825	AVE:	0,613
Indicator	**Question**	**Loading**	**T-Value**
ChD01	1. Wir haben neue Vertriebskanäle für unseren Markt entwickelt	0,876	16,9119
ChD02	2. Wir versuchen unsere Vertriebspartner dazu zu bringen, dass sie andere Verantwortlichkeiten akzeptieren als sie bisher gehabt haben	eliminated	
ChD03	3. Wir haben ständig andere Industrien im Blick, um „best practices“ im Bereich Vertrieb abzuleiten	0,696	6,5347
ChD04	4. Unser Unternehmen versucht pro-aktiv in signifikantem Umfang Kontrolle über seine Vertriebskanäle zu erlangen	0,766	7,7199
ChD05	5. Wir ermutigen regelmäßig unsere Zulieferer, sich neuen Herausforderungen (z.B. „Just-in-time“ Lieferung, anderer Anteil an der Wertschöpfung, etc.) zu stellen	eliminated	

Table 21: Evaluation of construct “Channel-driving behavior”

The “Regulator-driving behavior” construct was the construct which caused the most problems during its evaluation. Three out of the initial five indicators had to be eliminated due to insufficient loadings. The remaining two-item construct passes all test thresholds and produces good ratings. Test scores are produced in Table 22.

Regulator Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,778
Composite Reliability:	0,899	AVE:	0,817
Indicator	**Question**	**Loading**	**T-Value**
ReD01	1. Unser Unternehmen versucht Regulatoren argumentativ zu überzeugen, damit diese für uns vorteilhafte Rahmenbedingungen entwickeln	eliminated	
ReD02	2. Wir versuchen häufig, Veränderungen in den inhaltlichen Positionen von Industriegruppierungen (z.B. Verbänden, Firmenallianzen) herbeizuführen	0,921	4,5276
ReD03	3. Unser Unternehmen hat regelmäßig Kontakt mit politischen Institutionen oder Regulierungsstellen	0,886	3,0200
ReD04	4. Unser Unternehmen partizipiert aktiv in Standardisierungsgremien oder politischen Ausschüssen	eliminated	
ReD05	5. Wir wenden signifikante Resourcen für „Lobbying“ auf	eliminated	

Table 22: Evaluation of construct “Regulator-driving behavior”

The “Multiplier-driving behavior” construct produces good test scores after two items have been deleted. This is particularly satisfying as it is a newly developed construct which has not previously been discussed in the area of market-driving behavior. All measures of construct reliability are a healthy margin in excess of the requirements and item loadings are robust. Table 23 shows the results.

Multiplier Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,739
Composite Reliability:	0,849	AVE:	0,652
Indicator	**Question**	**Loading**	**T-Value**
MuD01	1. Wir kommunizieren pro-aktiv mit Multiplikatoren (z.B. Medien, Investoren, Partnerunternehmen oder Bildungsinstitutionen), um Unterstützung und Akzeptanz für unser Unternehmen aufzubauen	0,847	12,2595
MuD02	2. Wir unterhalten dauerhaft Beziehungen zu Schlüsselmedien und versorgen diese mit Inhalten	0,822	8,2076
MuD03	3. Wir suchen häufig Kontakt zu Analysten und der Finanzgemeinde (z.B. Banken, Risikokapitalgeber, etc.)	0,751	7,6171
MuD04	4. Wir interagieren systematisch mit Bildungsinstitutionen, um den gegenseitigen Wissenstransfer zu fördern	eliminated	
MuD05	5. Wenn es um das Schmieden von neuen Partnerschaften oder Koalitionen geht, sind wir üblicherweise unter den treibenden Kräften	eliminated	

Table 23: Evaluation of construct "Multiplier-driving behavior"

The second newly introduced construct is the "Employee-driving behavior" construct. Here only one indicator had to be eliminated. The four-item construct performed very well in the tests suggesting very good item and construct reliability and construct validity. Especially the high loadings and corresponding T-Values were encouraging. The following table summarizes the test results.

Employee Driving Behavior		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,821
Composite Reliability:	0,882	AVE:	0,651
Indicator	**Question**	**Loading**	**T-Value**
EmD01	1. Wir ermutigen unsere Mitarbeiter, eher ein pro-aktives als ein reaktives Verhalten an den Tag zu legen	0,791	17,2877
EmD02	2. Wir drängen unsere Mitarbeiter regelmäßig dazu, innovative Ideen zu entwickeln, die unser Geschäft radikal verändern könnten	eliminated	
EmD03	3. Unsere Mitarbeiter dürfen einen Teil ihrer Arbeitszeit mit selbst gewählten Projekten verbringen, um eigene Ideen voranzutreiben	0,795	18,5081
EmD04	4. Wir versuchen, unsere Mitarbeiter in die Lage zu versetzen, gegenüber unseren Kunden eine Führungsrolle zu übernehmen (z.B. diese von neuen Produkten od. Prozessen zu überzeugen, neue Arten der Zusammenarbeit zu gestalten, etc.)	0,819	30,2984
EmD05	5. Unser Unternehmen belohnt die Anstrengungen von Mitarbeitern, die Risiken eingehen und neue Opportunitäten entwickeln	0,821	14,5950

Table 24: Evaluation of construct "Employee-driving behavior"

The "Subjective success" construct is very important. Because no objective performance construct could be created due to data insufficiencies the subjective performance measure is the only remaining performance construct. Additionally, it represents the dependent variable in the structural model and therefore commands

special attention. Rigorous testing of this construct is vital to the overall results of the empirical study.

Fortunately this construct features the strongest credentials of all constructs discussed so far. Loadings of all six items exceed the threshold value and are highly significant. Both Cronbach's alpha and composite reliability are above 0.9 and the AVE value is close to 0.7. Hence the "Subjective success" construct can be said to have excellent construct and item reliability.

Subjective Success		N=224	
Specification:	Reflective	Cronbachs Alpha:	0,907
Composite Reliability:	0,928	AVE:	0,685
Indicator	**Question**	**Loading**	**T-Value**
SUB01	Wir sind zufrieden mit 1. …der Entwicklung unseres Unternehmens im Vergleich zu anderen Unternehmen der Branche	0,838	23,0918
SUB02	2. …unserem Wachstum im Vergleich zum wichtigsten Wettbewerber	0,873	45,6307
SUB03	3. …unserem prognostizierten Betriebsergebnis für die nächsten Jahre	0,870	39,7914
SUB04	4. …unserem Produkterfolg relativ zum Wettbewerb	0,825	18,5451
SUB05	5. …der Anzahl der gewonnenen Neukunden im Vergleich zu unserem wichtigsten Wettbewerber	0,838	35,0709
SUB06	6. …dem Ausmaß der Bindung der Kunden an unser Unternehmen im Vergleich zur Branche	0,709	16,4284

Table 25: Evaluation of construct "Subjective Success"

In summary, all constructs performed satisfactory in the item and construct reliability tests. They also showed evidence of adequate construct validity measured by their AVE. To finally judge the dimension of validity, however, it is necessary to assess item and construct discriminant validity. Item discriminant validity is evaluated by analyzing the correlation matrix for all reflective indicators and all constructs. The condition here is that no item should correlate more strongly with another construct than the one it belongs to.[569] As can be seen in Table 26 this condition is fulfilled for all but one indicator from the "Multiplier-driving behavior" construct (MuD05). This indicator does not jeopardize item discriminant validity, however, because it has already been eliminated from the construct in the previous step. Therefore item discriminant validity is given.

[569] See Chin (1998), p. 321.

Indicator	CuDri	CoDri	ChDri	ReDri	MuDri	EmDri	InGen	InDis	Respo
CuD01	**0,795**	0,361	0,261	0,245	0,283	0,299	0,335	0,286	0,406
CuD02	**0,342**	0,281	0,212	0,108	0,165	0,311	0,285	0,210	0,335
CuD03	**0,444**	0,261	0,218	0,158	0,210	0,240	0,211	0,195	0,283
CuD04	**0,855**	0,312	0,291	0,159	0,189	0,320	0,323	0,296	0,422
CuD05	**0,763**	0,384	0,267	0,178	0,214	0,378	0,323	0,254	0,441
CuD06	**0,475**	0,451	0,298	0,285	0,416	0,375	0,374	0,319	0,358
CoD01	0,201	**0,741**	0,309	0,160	0,273	0,133	0,220	0,238	0,189
CoD02	0,340	**0,761**	0,312	0,270	0,278	0,315	0,380	0,357	0,391
CoD03	0,450	**0,890**	0,431	0,285	0,347	0,313	0,292	0,297	0,390
CoD04	0,147	**0,476**	0,401	0,329	0,297	0,100	0,179	0,287	0,215
CoD05	0,135	**0,409**	0,277	0,257	0,171	0,100	0,099	0,126	0,099
ChD01	0,257	0,356	**0,876**	0,274	0,410	0,198	0,273	0,347	0,287
ChD02	0,240	0,364	**0,503**	0,100	0,171	0,158	0,268	0,275	0,234
ChD03	0,383	0,420	**0,696**	0,228	0,355	0,265	0,372	0,401	0,404
ChD04	0,236	0,342	**0,766**	0,200	0,363	0,322	0,424	0,421	0,423
ChD05	0,211	0,359	**0,470**	0,224	0,255	0,223	0,327	0,312	0,250
ReD01	0,139	0,229	0,278	**0,633**	0,334	0,149	0,093	0,123	0,081
ReD02	0,233	0,272	0,226	**0,922**	0,356	0,202	0,095	0,094	0,096
ReD03	0,187	0,269	0,326	**0,886**	0,451	0,195	0,153	0,188	0,138
ReD04	0,146	0,160	0,158	**0,616**	0,281	0,060	0,017	0,014	0,013
ReD05	0,198	0,310	0,297	**0,641**	0,443	0,205	0,225	0,151	0,201
MuD01	0,253	0,296	0,404	0,448	**0,847**	0,365	0,419	0,445	0,361
MuD02	0,283	0,318	0,336	0,368	**0,822**	0,360	0,364	0,333	0,305
MuD03	0,142	0,298	0,409	0,266	**0,751**	0,160	0,261	0,293	0,256
MuD04	0,315	0,260	0,259	0,419	**0,468**	0,316	0,236	0,292	0,281
MuD05	0,350	0,406	0,333	0,285	**0,428**	0,487	0,389	0,432	0,346
EmD01	0,295	0,217	0,288	0,183	0,381	**0,791**	0,471	0,480	0,384
EmD02	0,389	0,244	0,290	0,265	0,334	**0,611**	0,244	0,290	0,290
EmD03	0,389	0,296	0,193	0,218	0,242	**0,795**	0,357	0,395	0,360
EmD04	0,352	0,249	0,288	0,137	0,260	**0,819**	0,431	0,388	0,364
EmD05	0,290	0,274	0,215	0,177	0,265	**0,821**	0,398	0,407	0,337

Table 26: Evaluation of item discriminant validity

Construct discriminant validity is evaluated by comparing the square root of the AVE of each construct to the correlations of that construct with every other construct.[570] The results suggest construct discriminant validity for the six market-driving behavior constructs is given. As the market-driven behavior constructs are formative constructs the test for construct discriminant validity does not apply to them. Table 27 displays the results:

Construct	CuDri	CoDri	ChDri	ReDri	MuDri	EmDri	InGen	InDis	Respo
CuDri	**0,807**								
CoDri	0,429	**0,800**							
ChDri	0,339	0,450	**0,783**						
ReDri	0,234	0,299	0,300	**0,904**					
MuDri	0,276	0,379	0,477	0,441	**0,807**				
EmDri	0,409	0,319	0,309	0,220	0,359	**0,807**			
InGen	0,403	0,357	0,419	0,134	0,427	0,517	**N/A**		
InDis	0,346	0,360	0,471	0,151	0,438	0,519	0,710	**N/A**	
Respo	0,522	0,405	0,435	0,127	0,378	0,448	0,725	0,649	**N/A**

Table 27: Evaluation of construct discriminant validity

[570] See Chapter 5.3.3.1 for a more detailed discussion.

5.3.4.2 Formative Constructs

The **content validity** of the formative constructs was already established in prior studies which used the same constructs[571] and has additionally been confirmed during the pre-test interviews.

Indicator relevance and **multicollinearity** were analyzed for each of the three formative market-driven behavior constructs. The results are presented in the following three tables.

Intelligence Generation		N=224			
Specification:	formative	**Condition Index:**		15,815	
Indicator	**Question**	**Weight**	**T-Value**	**Tolerance**	**VIF**
InG01	1. Wir führen in unserem Unternehmen sehr viel Marktforschung "in-house" (eigenständig) durch	0,344	4,471	0,791	1,264
InG02	2. Wir bemerken Veränderungen in den Produktpräferenzen unserer Kunden relativ spät	0,288	3,002	0,951	1,051
InG03	3. Wir sprechen oft mit denjenigen, die die Käufe unserer Endverbraucher beeinflussen können (z. B. Einzel- oder Großhändler) oder befragen diese	0,034	0,4318	0,802	1,246
InG04	4. Wir sammeln Brancheninformationen durch informelle Mittel (z. B. Geschäftsessen mit Freunden aus der Branche, Gespräche mit Handelspartnern)	0,164	1,3909	0,627	1,594
InG05	5. Wir sammeln Informationen darüber, worin unser Wettbewerbsvorteil liegt	0,346	2,5908	0,593	1,687
InG06	6. Wir treffen mindestens ein Mal im Jahr unsere Kunden, um herauszufinden, welche Produkte oder Dienstleistungen sie in Zukunft benötigen	0,361	3,8619	0,758	1,318

Table 28: Evaluation of construct "Intelligence generation"

Of the six indicators of the "Intelligence generation" construct two have a loading of below 0.2 and one is not significant according to the threshold established above. The other four items have acceptable relevance. Multicollinearity seems to be absent as all indicators have VIFs well below the threshold value of 10 and the construct's condition index is also below the critical level. Therefore no indicators need to be eliminated.

[571] See Claas (2006); Kessell (2006).

Intelligence Dissemination		N=224			
Specification:	formative	Condition Index:		17,263	
Indicator	Question	Weight	T-Value	Tolerance	VIF
InD01	1. Für das Sammeln von Markt- und Kundeninformationen fühlt sich in unserem Unternehmen niemand verantwortlich	0,207	2,8429	0,834	1,199
InD02	2. In unserem Unternehmen sind regelmäßig Unterlagen (z. B. Berichte) im Umlauf, in denen Informationen über unsere Kunden bereitgestellt werden	0,136	1,8862	0,656	1,525
InD03	3. Wir haben in unserem Unternehmen einen Marketingplan entwickelt	0,292	3,6338	0,577	1,734
InD04	4. Wir halten mindestens einmal im Quartal Besprechungen zwischen den Bereichen ab, um Markttrends und -entwicklungen zu erörtern	0,276	3,1145	0,540	1,851
InD05	5. Wenn ein Bereich etwas Wichtiges über Konkurrenten herausfindet, wird er die anderen Bereiche sofort informieren	0,167	1,8459	0,632	1,582
InD06	6. Viele unserer informellen (Flur-) Gespräche im Unternehmen betreffen die Taktiken oder Strategien unserer Konkurrenten	0,180	2,4902	0,835	1,197
InD07	7. Die Aktivitäten der verschiedenen Bereiche in unserem Unternehmen sind gut koordiniert	0,259	2,6904	0,687	1,456

Table 29: Evaluation of construct "Intelligence dissemination"

The "Intelligence dissemination" construct has three items with a weight below 0.2. However, all of them are significant. No multicollinearity problem seems to be present as all seven indicators produce low VIFs and the condition index of the construct is below 20.

Responsiveness		N=224			
Specification:	formative	Condition Index:		21,191	
Indicator	Question	Weight	T-Value	Tolerance	VIF
RES01	1. In unserem Unternehmen haben Analyse und Verständnis unterschiedlicher Marktsegmente zu neuen Produktentwicklungen geführt	0,404	3,6491	0,526	1,902
RES02	2. Selbst, wenn wir einen großartigen Marketingplan entwickelt hätten, wären wir wahrscheinlich nicht in der Lage, ihn zeitnah durchzuführen	0,287	3,0481	0,818	1,222
RES03	3. Wir versuchen zügig auszutesten, in welche Märkte und zu welchen Kunden unser Produkt am besten passt	0,42	5,1775	0,672	1,489
RES04	4. Wenn wir feststellen, dass Kunden mit der Qualität unseres Angebots unzufrieden sind, nehmen wir unverzüglich korrektive Maßnahmen vor	0,240	2,8568	0,731	1,368
RES05	5. Unsere Geschäftspläne werden eher durch neue Technologien als durch Marktforschung gesteuert	-0,011	0,1317	0,876	1,142
RES06	6. Wir benötigen in der Regel zu lange für die Entscheidung, wie wir auf Preisänderungen unserer Konkurrenten reagieren sollen	0,158	1,8818	0,875	1,143
RES07	7. Die Grundsätze der Marktsegmentierung haben zu neuen Produktentwicklungen in unserem Unternehmen geführt	0,070	0,8389	0,630	1,587
RES08	8. Wir reagieren schnell auf bedeutende Änderungen bei den Preisstrukturen unserer Konkurrenten	0,080	1,0833	0,894	1,119

Table 30: Evaluation of construct "Responsiveness"

The "Responsiveness" construct does not perform as well as the two prior constructs. Three out of eight indicators exhibit very low weights and are not significant. Multicollinearity appears absent when looking at the VIFs but the condition index at 21.2 is slightly above the established threshold. To gain further security that multicollinearity is not a problem a correlation analysis was conducted for this construct.[572] The results are shown below.

	RES01	RES02	RES03	RES04	RES05	RES06	RES07	RES08
RES01	1							
RES02	0,026	1						
RES03	0,508	0,116	1					
RES04	0,385	-0,050	0,397	1				
RES05	-0,011	0,316	-0,046	-0,099	1			
RES06	-0,032	0,236	0,042	0,168	0,076	1		
RES07	0,564	-0,018	0,329	0,160	-0,101	-0,164	1	
RES08	0,225	0,112	0,194	0,204	0,038	0,020	0,241	1

Table 31: Correlation analysis for construct "Responsiveness"

As can be seen in the table above no correlation exceeds the critical threshold of 0.9. Therefore an elimination of indicators to reduce multicollinearity does not appear appropriate. Even though it can be noted that the highest correlation – which occurs between items RES01 and RES07 – is between indicators that are rather close with regard to their content. On the other hand this result is encouraging in that it lends some credibility to the measurement.

After the analysis of the reflective and formative 1st order constructs also the 2nd order constructs for "Market Driving Behavior" and "Market Driven Behavior" were constructed and evaluated. The two constructs have a formative specification and were constructed by using the construct values – which PLS calculated for the six or three 1st order constructs, respectively – as indicators.[573]

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572 Correlation analyses were also conducted for the "Intelligence generation" and "Intelligence dissemination" constructs. No correlations above the 0.9 threshold were identified. The results are not presented here because for these two constructs there was no evidence to suspect an excessive level of multicollinearity.

573 For a description on how to calculate second order constructs see Chin et al. (2003), Appendix A, p. 5.

Market Driving Behavior		N=224			
Specification:	formative (2nd Order)	Condition Index:		2,462	
Indicator	Question	Weight	T-Value	Tolerance	VIF
CuDri	1. Customer Driving	0,360	2,2649	0,718	1,392
CoDri	2. Competitor Driving	0,082	0,484	0,678	1,475
ChDri	3. Channel Driving	0,359	2,3043	0,669	1,495
ReDri	4. Regulator Driving	-0,385	2,6601	0,778	1,286
MuDri	5. Multiplier Driving	0,355	2,1020	0,634	1,578
EmDri	6. Employee Driving	0,418	2,8526	0,756	1,322

Table 32: Evaluation of 2nd order construct "Market Driving Behavior"

The formative 2nd order construct "Market Driving Behavior" produced significant paths for five of its six indicators. Only the dimension "Competitor Driving Behavior" failed to show a significant relationship. Multicollinearity can be ruled out as both the condition index and the VIFs were very low. Interestingly the indicator for "Regulator Driving Behavior" had a negative path coefficient implying a negative impact of regulator-driving behavior on market-driving behavior. This will be further discussed in Chapter 6.

Market Driven Behavior		N=224			
Specification:	formative (2nd Order)	Condition Index:		3,043	
Indicator	Question	Weight	T-Value	Tolerance	VIF
InGen	1. Information Generation	0,506	2,7894	0,375	2,667
InDis	2. Information Dissemination	0,322	1,7960	0,458	2,186
Respo	3. Responsiveness	0,323	1,7781	0,438	2,282

Table 33: Evaluation of 2nd order construct "Market Driven Behavior"

The 2nd order construct "Market Driven Behavior" meets all quality criteria for relevance and multicollinearity. All three indicators produce robust and significant weights and low VIFs. The condition index is also low.

Concluding, after removing several items from the reflective constructs, all reflective and formative constructs meet the required quality assessment criteria.

5.3.5 Evaluation of the structural model

The structural model was initially analyzed in two model configurations: (1) for market-driving behavior and market-driven behavior separately and (2) in an integrated model including both behaviors as exogenous variables. Subsequently, various moderating effects were investigated in the form of group analyses. This proceeding had the following rationale. *Configuration 1* allowed testing the absolute impact of market-driving behavior on company performance. At the same time the

partial model for market-driven behavior could be used to cross-check some key results with results from other studies about market-driven behavior in emerging firms. *Configuration 2* brings the two concepts in relation and enables testing the relative impacts of market-driving and market-driven behavior on performance. The group analyses were designed to introduce the contingency aspect discussed in Chapter 3 and provide results which allow a more in-depth discussion of the interactions between the two market orientation approaches in the next chapter.

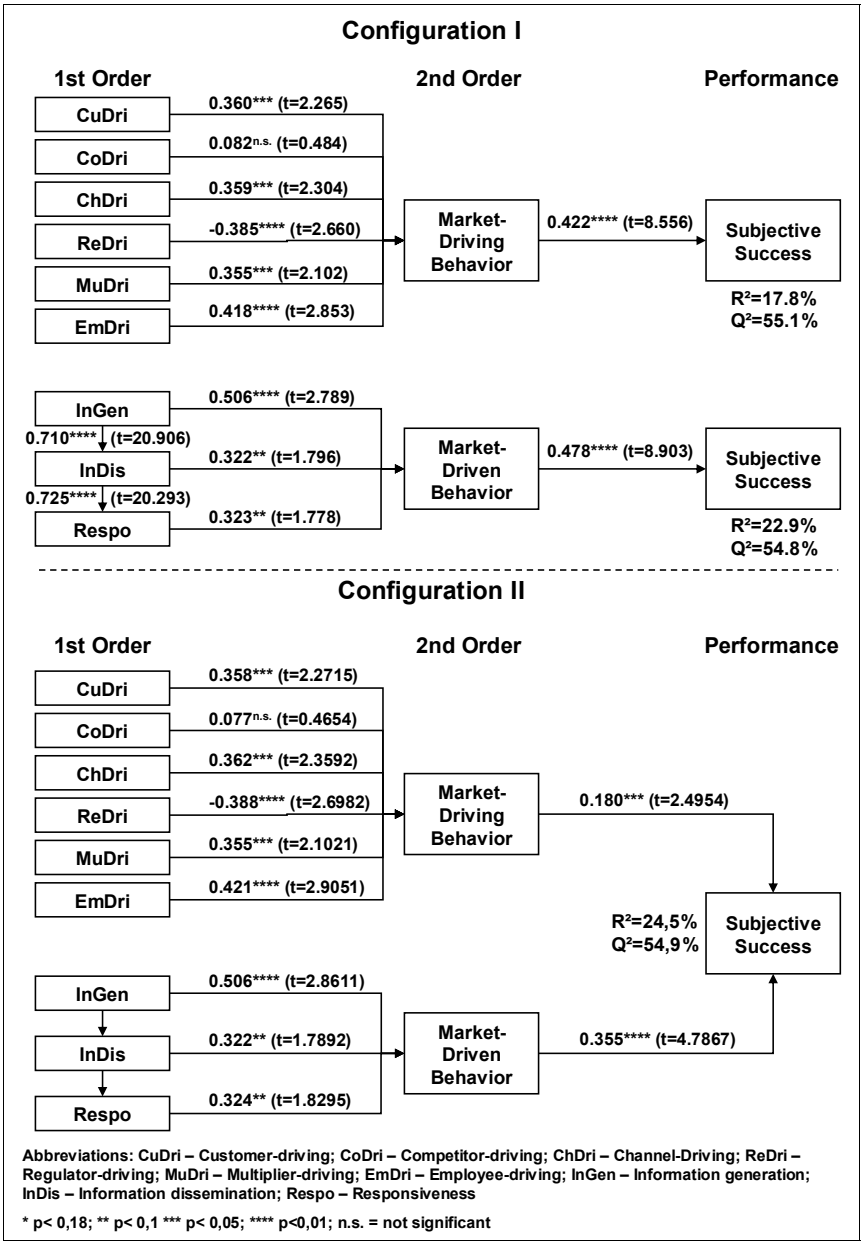

Figure 15: Evaluation of structural model

With the exception of the "Competitor Driving Behavior" construct all constructs in the partial model for market-driving behavior show significant relationships to the second-order construct "Market Driving Behavior". This construct itself exhibits a highly significant positive relationship to the performance construct. The R^2 of 17.8% can be considered acceptable given that the success of a company depends on multiple factors and not only on its market-driving behavior. The only empirical indication about the relationship between market-driving behavior and company performance to date found a similar level of R^2.[574] The Q^2 of 55.1% is positive. Therefore predictive relevance is given for this structural model.

The partial model for market-driven behavior displays significance for all three paths between the first-order constructs and the "Market Driven Behavior" construct as well as for the relationship between market-driven behavior and the subjective success construct. The "Intelligence generation" construct provides the strongest contribution to market-driven behavior. Also the relationships between the three dimensions of market-driven behavior – i.e. from intelligence generation to intelligence dissemination and from intelligence dissemination to responsiveness – were confirmed. The R^2 is slightly higher than for the market-driving behavior model at 22.9%. The Q^2 of 54.8% suggests acceptable predictive relevance of the model. These are particularly satisfying results as they duplicate results of prior studies on market orientation in emerging firms which used the same operationalization for market-driven behavior and company performance.[575,576]

In the integrated model all path coefficients are significant. Because market-driving and market-driven behavior are integrated in the same model their relative impact can

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574 Hills et al. find a path coefficient of 0.44 (compared to 0.42 in the current study) between market-driving behavior and performance for their sample of established companies; see Hills et al. (forthcoming), p. 35; however, it has to be noted that their measures for market-driving behavior and performance are not identical (although partly overlapping) with the ones used in this study (see discussion in Chapter 4). Nevertheless, the similarity in results is an interesting indication.

575 Claas (2006) found an R^2 of 22% and a Q^2 of 49% in her overall model for the relationship between market-driven behavior and performance. She also found intelligence generation to have the strongest impact followed by responsiveness and intelligence dissemination. The magnitude of the path coefficients was different though because she did not aggregate the three market-driven behavior constructs to a second-order construct. Finally her results likewise showed an about equal strength of the relationship between intelligence generation and intelligence dissemination and between intelligence dissemination and responsiveness; see Claas (2006), pp. 199ff.

576 Kessell (2006) presents results in a similar order of magnitude; see Kessell (2006), pp.158ff.

be assessed by comparing the respective path coefficients. The "Market Driven Behavior" construct has a bigger influence on performance than does the "Market Driving Behavior" construct. The strongest influence on market-driving behavior is exerted by the "Employee-driving behavior" construct while intelligence generation maintains the strongest impact on market-driven behavior. The R^2 for the integrated structural model is 24.5% and the Q^2 is 54.9%. An acceptable model fit and predictive relevance are thus confirmed also for this model.

In both the partial model for market-driving behavior and the integrated model the signs for the six dimensions of market-driving behavior are equal. Customer-driving behavior, competitor-driving behavior, channel-driving behavior, multiplier-driving behavior and employee-driving behavior have a positive impact on market-driving behavior. Regulator-driving behavior has a negative influence on market-driving behavior. Market-driving behavior itself has a positive influence on company performance which confirms H1.

5.3.6 Moderators of market oriented behaviors

As discussed in Chapters 2 & 3 the relationships between market-driving behavior or market-driven behavior respectively and company performance is likely contingent on a variety of environmental conditions. These different environmental moderators which have been theoretically deduced are tested in the form of group comparisons of the structural model. The moderating variables were used to split the sample into groups and the structural model was recalculated individually for each of these groups. For each moderator two different configurations of the structural model will be discussed: a simple model for market-driving behavior only which allows to evaluate the absolute effect of market-driving behavior on firm performance and a combined model for market-driving behavior and market-driven behavior which permits assessing the relative influence of market-driving behavior vis-à-vis market-driven behavior on performance.

To determine the influence of the company development phase on market-driving behavior the sample was split into a group of companies in an early phase of their development and a group of companies in a late phase of their development. The early phase included companies in their concept, foundation and growth phases while the

late phase included companies in their consolidation and maturity phases.[577] The exact split of the sample has been provided in Chapter 5.2.

To investigate the influence of the industry development stage the sample was split into two groups which represent companies operating in industries that are in their early stages of development and those that are at later stages of development. Industries in their introduction or growth stages were added to the early industry development stage while industries in the consolidation or maturity stages form the late development stage.[578] Again, see Chapter 5.2 for the exact split of the sample.

To evaluate the impact of market entry timing the sample was split into two groups with regard to the order of entry of the respective companies. Pioneers and early followers – the ones entering the market before a dominant design has emerged – make up the group of companies with an early order of entry. The group of companies with a late order of entry consists of late followers who entered the market after the emergence of a dominant design.[579]

To assess the influence of the remaining five moderators the sample was split into a group of low and high technology turbulence, market turbulence, competitive intensity, regulation intensity and degree of innovation respectively.[580]

Following is a brief overview of the results per moderator for the simple and the combined model.[581]

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[577] The construct detailing the five company development phases was taken from Claas (2006) who derived it from scales developed by Kazanjian (1988), p. 279 and Galbraith (1982), p. 74.

[578] The construct describing the four different industry stages was adapted from Anderson and Zeithaml (1984), pp. 6ff and Zimmerman and Callaway (2001), p. 4.

[579] The construct describing the three different order of entry types (pioneer, early follower and late follower) was derived from Anderson and Tushman (1990), pp. 606ff.

[580] The constructs used to measure technology turbulence, market turbulence and competitive intensity were taken from Jaworski and Kohli (1993), pp. 68f; they had also been used and validated in the context of emerging firms by Claas (2006); the construct for regulation intensity was derived from Koedijk and Kremers (1996), pp. 448ff; the construct for degree of innovation was adapted from Gatignon et al. (2002), p. 1112 and Salomo (2003), pp. 12ff.

[581] The more detailed results for each model are shown in Figures 26-41 in Appendix 8.3.1.

5.3.6.1 Absolute influence of market-driving behavior on firm performance

The absolute influence of market-driving behavior on company performance in the group comparisons was evaluated by comparing the respective path coefficients in the structural model. Because these path coefficients are taken from two separate models (one for each of the two groups in the group comparison) it is required to assess the significance of the difference indicated by those path coefficients.

The significance is determined with the help of t-values which are calculated as

$$t = \frac{Path_{sample\_1} - Path_{sample\_2}}{\left[\sqrt{\frac{(m-1)^2}{(m+n-2)} * S.E._{sample\_1}^2 + \frac{(n-1)^2}{(m+n-2)} * S.E._{sample\_2}^2}\right] * \left[\sqrt{\frac{1}{m} + \frac{1}{n}}\right]},$$

where *Path* stands for the path coefficients, *m* and *n* for the sample sizes of the two groups to be compared and *S.E.* for the standard error.[582]

Figure 16 shows the hypothesis test for all eight moderators in the simple structural model. The path coefficients are shown as bars. The corresponding hypothesis and the results of the hypothesis test are shown above the bar.

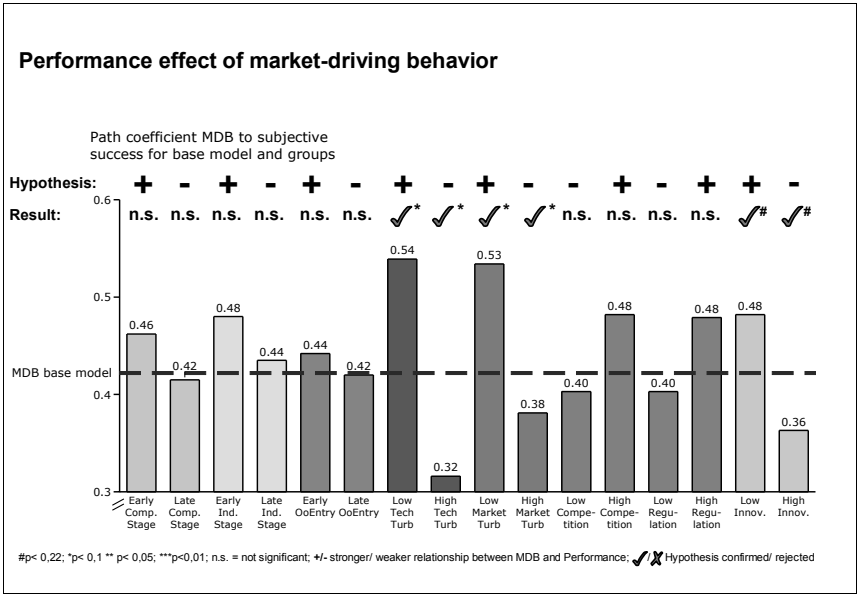

Figure 16: Simple structural model: Performance impact of MDB

582 See Chin (2000), Question 1.

In the early company phase, the early industry stage and for companies that have an early order of market entry market-driving behavior has a stronger influence on company performance than the respective late stages as is indicated by the higher path coefficients. H2a, H3a and H4a cannot be confirmed, however, because the differences are not significant.

In environments with low technology turbulence and low market turbulence market-driving behavior equally has a bigger impact on firm performance than in environments with high technology or market turbulence. This confirms H5a and H6a.

The performance impact of market-driving behavior is also greater in highly competitive environments and in highly regulated environments compared to environments with low competitive or regulation intensity but these differences are again not significant. Hence H7a and H8a are not confirmed.

H9a is confirmed because market-driving behavior has a bigger influence on company performance for the companies that possess a low degree of innovation rather than for radically innovative companies. A summary of all hypotheses will be given at the beginning of Chapter 6.

5.3.6.2 Relative influence of market-driving behavior vis-à-vis market-driven behavior on firm performance

The evaluation of the relative influence of market-driving behavior vis-à-vis market-driven behavior on company performance in the group comparisons was done by subtracting the path coefficient for market-driven behavior from the path coefficient for market-driving behavior and comparing the resulting values. A higher value thus denotes a relatively greater influence of market-driving behavior and a lower value indicates a greater influence of market-driven behavior. As the two path coefficients that are used originate from the combined structural model their values can be directly compared and no further significance test is necessary. Again the results of the hypothesis tests are added. The comparison and hypothesis test results are displayed in Figure 17.

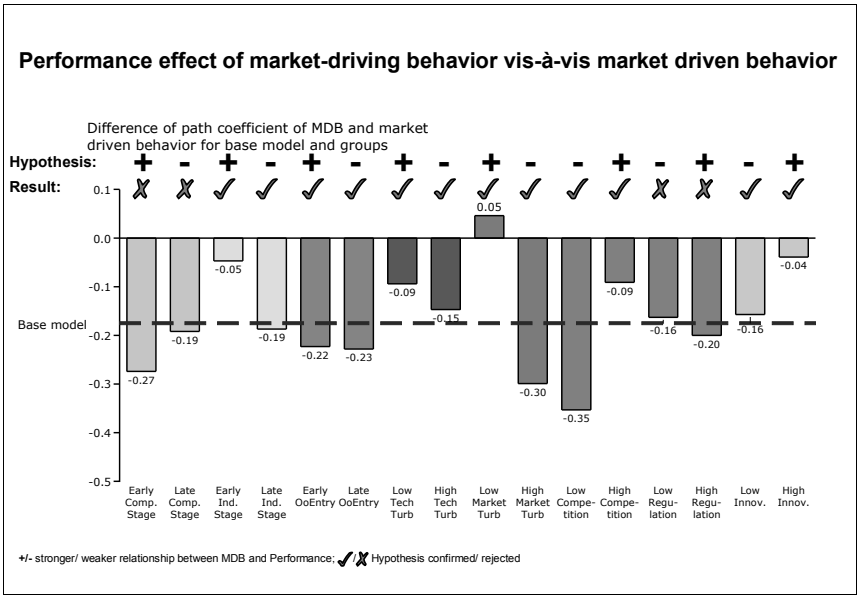

Figure 17: Combined structural model: Performance impact of market-driving and market-driven behavior

Market-driving behavior has a relatively greater impact than market-driven behavior in the late company phase, the early industry stage and for an early order of (market) entry. These results confirm H3b and H4b but H2b is rejected.

In an environment of low technology turbulence market-driving behavior is relatively more influential than market-driven behavior. And it has a substantially greater relative influence in environments of low market turbulence. This confirms H5b and H6b.

In environments with high competitive intensity market-driving behavior also has a significantly stronger relative impact on performance than market-driven behavior which confirms H7b. H8b is rejected because market-driving behavior has a slightly stronger relative impact on performance in environments with low regulation intensity.

H9b is accepted because in the group of companies with a high degree of innovation market-driving behavior exerts a relatively more pronounced performance influence than market-driven behavior.

Even though 6 out of 8 hypotheses for the relative perspective are confirmed it is somewhat disappointing that for all groups except low market turbulence market-driven behavior has a bigger influence than market-driving behavior on company performance in absolute terms. Reasons for this result will be further discussed in the next chapter.

6. Discussion

This chapter will deliver a discussion of the empirical study presented in Chapter 5. The discussion will include possible interpretations of the results (Chapter 6.1), draw conclusions about the effects of market-driving behavior, explain implications for practitioners as well as researchers (Chapters 6.2 and 6.3), highlight limitations of the presented study and provide guidelines for future research on the subject (Chapter 6.4).

To recapitulate the main findings from the last chapter the results for all hypotheses are again summarized in Table 34.

No.	Hypothesis Description	Expected Sign	Resulting Sign	Confirmed/ Rejected
H1	MaDri → Performance	+	+	Confirmed
H2a	Early/Late Company Phase (MaDri abs. → Perf.)	+/–	+/–	Rejected (n.s.)
H3a	Early/Late Industry Stage (MaDri abs. → Perf.)	+/–	+/–	Rejected (n.s.)
H4a	Early/Late Order of Entry (MaDri abs. → Perf.)	+/–	+/–	Rejected (n.s.)
H5a	Low/High Tech Turbulence (MaDri abs. → Perf.)	+/–	+/–	Confirmed
H6a	Low/High Market Turbulence (MaDri abs. → Perf.)	+/–	+/–	Confirmed
H7a	Low/High Competitive Int. (MaDri abs. → Perf.)	–/+	–/+	Rejected (n.s.)
H8a	Low/High Regulation Int. (MaDri abs. → Perf.)	–/+	–/+	Rejected (n.s.)
H9a	Low/High Degree of Innov. (MaDri abs. → Perf.)	+/–	+/–	Confirmed
H2b	Early/Late Company Phase (MaDri rel. → Perf.)	+/–	–/+	Rejected
H3b	Early/Late Industry Stage (MaDri rel. → Perf.)	+/–	+/–	Confirmed
H4b	Early/Late Order of Entry (MaDri rel. → Perf.)	+/–	+/–	Confirmed
H5b	Low/High Tech Turbulence (MaDri rel. → Perf.)	+/–	+/–	Confirmed
H6b	Low/High Market Turbulence (MaDri rel. → Perf.)	+/–	+/–	Confirmed
H7b	Low/High Competitive Int. (MaDri rel. → Perf.)	–/+	–/+	Confirmed
H8b	Low/High Regulation Int. (MaDri rel. → Perf.)	–/+	+/–	Rejected
H9b	Low/High Degree of Innov. (MaDri rel. → Perf.)	–/+	–/+	Confirmed

Table 34: Results of hypotheses tests

6.1 Interpretation of Results

The interpretation of the results will encompass three steps: first, the market-driving behavior construct will be discussed. Then, the relationship between this construct and firm performance will be evaluated. Finally, the impact of moderators on this relationship will be explained.

6.1.1 The market-driving behavior construct and its dimensions

When doing a general assessment of the market-driving behavior construct – as has been done in the Chapter 5 – a good overall quality of the construct can be affirmed. The constructs for all six dimensions are robust with regard to the reliability and validity criteria. It is especially comforting that the two newly introduced dimensions multiplier-driving behavior and employee-driving behavior perform so well in the quality assessment.[583] It can therefore be assumed that these are two vital dimensions of the overall market-driving behavior concept which have been overlooked in previous research. The regulator-driving behavior construct displays the weakest credentials of all six dimensions of market-driving behavior although it still meets the required test thresholds.[584] But it ends up as a two-item construct which is less than ideal. Therefore the conclusions drawn on the basis of this construct should be viewed with some caution and future research to validate these particular findings appears desirable.

Of the six dimensions employee-driving behavior has the greatest impact on market-driving behavior. This could be explained by the fact that employees are the crucial link between the company and the market and it is them who implement any type of market-driving strategy. In that function the employees might actually influence the other dimensions of market-driving behavior – however, the path coefficients in a moderated model were not particularly high. Furthermore, as this research only marks the beginning of empirical research into market-driving behavior a premature weighting of the six dimensions did not seem appropriate. Future research may clarify this issue.

Following in importance for market-driving behavior are customer-driving, channel-driving and multiplier-driving behavior with about equal influence. That customer-driving behavior is important hardly comes as a surprise as customers have long been considered as *the* key stakeholder in the market. The current study only confirms this notion. The importance of channel-driving and multiplier-driving behavior in this study may be explained by the research object. For emerging firms it is vital to establish and possibly control distribution channels and because they lack the

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583 See Chapter 5.3.4.1.
584 See Chapter 5.3.4.1.

resources possessed by larger companies they require the support of multipliers to build their business.

Competitor-driving behavior has no significant impact while regulator-driving behavior exerts a negative influence on market-driving behavior. Here again, the composition of the sample might provide a valid explanation for these results. As the companies that were surveyed are emerging technology ventures they frequently offer new and innovative products or services. It is therefore not implausible that these companies face less competition and it is more important for them to convince customers of their new offers and to develop adequate distribution structures.

With regard to the negative influence of regulator-driving behavior a possible interpretation could be that for emerging firms an engagement in regulator-driving behavior is too much a strain on resources and thus detracts attention from the other dimensions and thereby lowers the overall level of market-driving behavior. The relationship between resource investment and outcomes could also be additionally worsened by the fact that a lot of benefits extracted from regulator-driving behavior are collective (i.e. industry-wide) rather than individual (i.e. for a single company).[585] It can also not be ruled out that the negative relationship can be attributed to the regulator-driving behavior construct. Its weaknesses have been discussed above. Further research will be necessary to clarify this point.

6.1.2 Performance implications of market-driving behavior

As has been shown in Chapter 5.3.5 market-driving behavior does have a significant positive influence on the performance of emerging technology firms. In the separate structural model (Configuration I) market-driving behavior explains almost as much variation in firm performance as market-driven behavior.

However, in the integrated structural model (Configuration II) market-driving behavior's influence is significantly lower than that of market-driven behavior. The higher influence of market-driven behavior can have one of several causes.

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[585] See Hillman et al. (1999), p. 70.

It is possible that market-driven behavior really is the superior strategy for emerging technology firms. This is, however, not unambiguously supported by the literature on market-driving behavior as has been discussed in Chapter 2.

Another explanation could be that the sample contains more market-driven than market-driving firms and therefore market-driven behavior explains a greater part of the variation in company performance. However, when looking at the descriptive statistics this does not seem to be the case as the full spectrum from very low to very high market-driving behavior is represented.

It is also conceivable that the specification of the two constructs accounts for some of the difference in performance impact. Market-driven behavior is a formative second-order construct that is formed by three formative first-order constructs. This formative specification prohibits the elimination of indicators and a higher number of indicators automatically accounts for more of the variation in company performance. Market-driving behavior on the other hand is a formative second-order construct formed by reflective first-order constructs. Because some of these reflective indicators were eliminated in the process of validating the first-order constructs explanatory power was lost. The reflective specification therefore already inherently leads to a weaker relationship between market-driving behavior and performance.

Finally, the measurement of market-driving behavior and market-driven behavior can be the cause for the weaker relationship. As has been described in the theoretical part a market orientation consists of the three steps intelligence generation, intelligence dissemination and responsiveness. An alternative approach to measure market-driving behavior could therefore integrate the market-driving behavior construct in lieu of or alongside the responsiveness construct and thus amplify the domain of the construct which should lead to higher explanatory power and a stronger influence vis-à-vis market-driven behavior. This route was not followed initially as the intention was to build on an existing construct and to further develop it before going this next – rather explorative – step. However, considering the theoretical backing described in Chapter 2 and the results obtained so far market-driving behavior might be better evaluated in this integrated perspective. Therefore the author constructed an extended structural model which integrates the constructs for intelligence generation, intelligence dissemination, market-driving behavior and responsiveness. This model and its estimation results are presented in Figure 18.

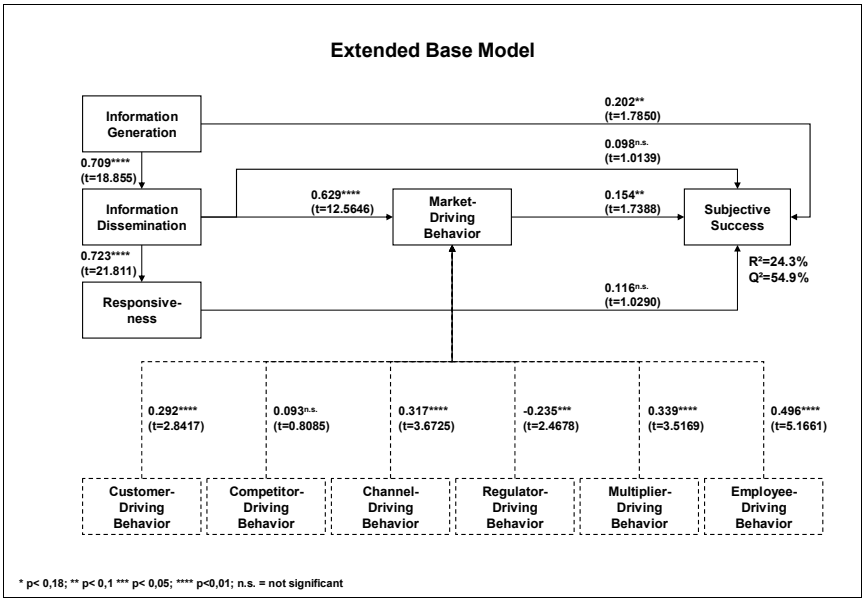

Figure 18: Extented structural model

The results of this extended model contain several interesting insights. The R^2 of this model at 24.3% is nearly identical with the one obtained from the combined structural model of market-driving behavior and market-driven behavior presented earlier. Hence no explanatory power is lost in this new model configuration. The comparison between market-driving behavior and market-driven behavior is now focused on the response step – with market-driving behavior vs. responsiveness standing for a proactive vs. a reactive response respectively. Here it can be seen that market-driving behavior has a stronger positive performance impact than market-driven behavior (responsiveness) in the base model as is indicated by the higher path coefficient. This means that for the sample of emerging firms employed in this empirical study market-driving behavior is overall more beneficial than market-driven behavior.

Another very encouraging result is that the path coefficient from information dissemination to market-driving behavior is positive and highly significant. This supports the conclusion drawn in the theoretical discussion that market-driving behavior represents a different type of response in the larger context of market oriented behavior. Information generation and dissemination are consequently important prerequisites also for market-driving behavior. The type of information

generated and disseminated might, however, be different for market-driving and market-driven behavior.

Furthermore these results gain additional support when comparing them to earlier studies on market orientation in emerging firms. Claas (2006) e.g. found relationships in a similar order of magnitude for some of the path coefficients in the structural model. The comparison also reveals that additional explanatory power is gained in those cases where market-driving behavior has a more positive performance impact than market-driven behavior.[586]

The obtained results suggest that the extended structural model adds an interesting perspective about market orientation even though the question about the type of information needed for a market-driving behavior as opposed to a market-driven behavior cannot be answered here.

It is also interesting to look at the R^2 for the group comparison models according to the new logic from the extended structural model.[587] By comparing these coefficients of determination one can get a first indication about the effectiveness of market oriented behaviors in different environments. A high R^2 shows that market oriented behaviors – in the form of market-driven or market-driving behavior – contribute significantly to the success of an emerging firm in the particular environment whereas a low R^2 indicates that other factors which are not included in the model are important drivers of firm success. Figure 19 summarizes the results from this analysis.

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[586] A comparison between the results of Claas and the results of this study – where applicable – is provided in Figure 42 in the Appendix; see Claas (2006), pp. 199ff; it can be seen that the results of Claas more closely resemble the results obtained here for the companies in their late company development phase where responsiveness is a stronger driver of firm success than market-driving behavior. For companies in their early company development phase where market-driving behavior has the stronger influence on performance the extended model presented here explains a greater share of the variance than the structural model by Claas.

[587] See Figures 43 – 50 in the Appendix for the detailed statistics for each individual model.

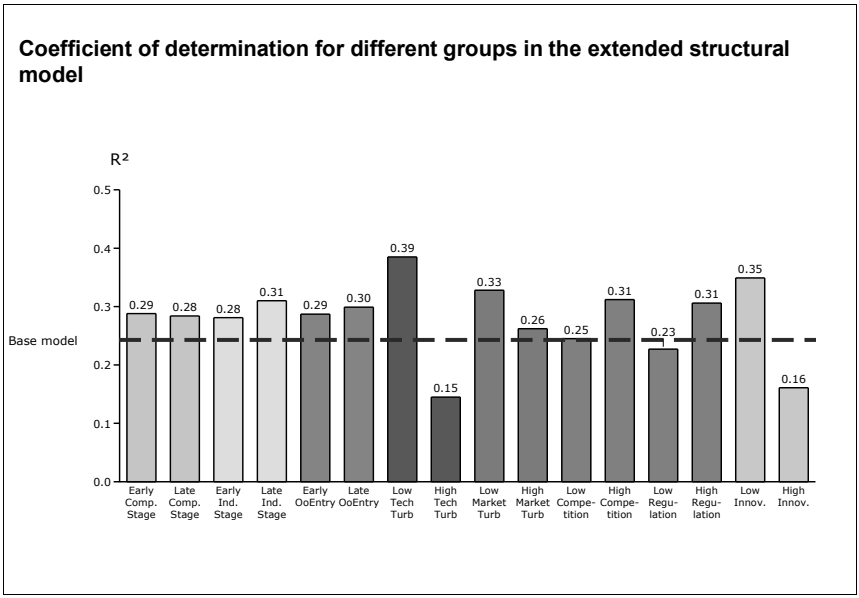

Figure 19: Extended structural model: R² for different groups

Results show that a market orientation is generally an important performance driver with particularly high R² values in environments with low technology turbulence, a low degree of product/ service innovation or low market turbulence. In contrast market orientation plays a less vital role if the environment is characterized by high technology turbulence or if the company introduces radical innovations.

Partially different results from the ones presented in Chapter 5 are also generated when using the extended structural model for the group comparisons regarding the effectiveness of market-driven vs. market-driving behavior. In analogy to Chapter 5.3.6.2 this is done by subtracting the path coefficient between responsiveness and Subjective Success from the path coefficient between market-driving behavior and Subjective Success and comparing the resulting values.[588] This follows the logic that the two market oriented behaviors mainly differ in the response step of the market orientation process.[589] Figure 20 shows the results.

[588] See Figures 43 – 50 in the Appendix for the detailed statistics for each individual model.
[589] See Figure 5 in Chapter 2.5.1.

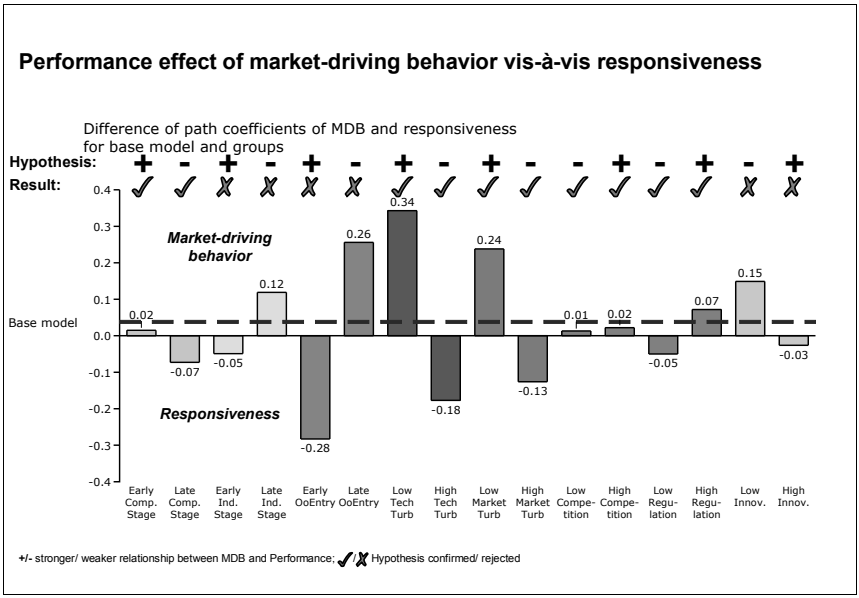

Figure 20: Extended structural model: Performance impact of market-driving behavior vs. responsiveness

As can be seen above market-driving behavior has a greater influence on firm success for companies in the early development phase, in the late industry development stage and with a late order of market entry. Contrary to the findings from Chapter 5 this confirms H2b but H3b and H4b are rejected.

Market-driving behavior is also more beneficial than responsiveness in environments of low technology turbulence and low market turbulence. These results duplicate the findings from Chapter 5 and confirm H5b and H6b.

H7b and H8b are also confirmed because market-driving behavior has a relatively greater positive influence on firm performance for firms in highly competitive and highly regulated environments. The prior model produced the same outcome for competitive intensity but the opposite finding for regulation intensity.

Finally, market-driving behavior is more beneficial than responsiveness for firms with a low degree of innovation in their products or services. In contrast to the results from the previous chapter H9b is thus rejected.

The extended model also supports the conclusion which had been derived in the theoretical part that market-driving behavior and market-driven behavior are complementary. For all group comparisons except competitive intensity there is a clear pattern where for one group market-driving behavior and for the other responsiveness (i.e. market-driven behavior) has the stronger positive influence on firm performance.

Another interesting observation is that for all group comparisons market-driving behavior has a stronger performance impact than market-driven behavior in those groups where market orientation has higher success relevance. This can be seen by comparing the results from Figures 19 and 20. R^2 is higher for the early company phase, late industry stage, late order of entry, low technology turbulence, low market turbulence, high competitive intensity, high regulation intensity and low degree of innovation groups (see Figure 19). Those are the same groups where market-driving behavior has a stronger influence on firm performance than market-driven behavior (see Figure 20).

Because the extended structural model is valid from a theoretical perspective and produces strong empirical results it will subsequently be used alongside the simple structural model (base model) for market-driving behavior to evaluate the impact of moderators on the market-driving behavior – company performance relationship. Where the two models produce differing results a theoretical discussion will be conducted to determine which model will be used as the primary point of reference. Each moderator will be discussed individually in the following section.

6.1.3 Consideration of environment

Further insight on the effects of market-driving behavior on firm performance can be gained when investigating this relationship under different environmental conditions. This has been done in the group comparisons presented in Chapters 5.3.6 & 6.1.2 whose more detailed results can be found in Appendix 8.3.1.

When interpreting the hitherto presented results there are two very different perspectives that should be distinguished. **Perspective I** is a view on the relationship between market-driving behavior and firm performance on a stand-alone basis. This answers the question whether market-driving behavior will work better in environment A or environment B. This absolute perspective, however, does not take possible

alternative behaviors into account. The interpretations under Perspective I draw on the results of configuration 1 of the base model which included separate structural models for market-driving behavior and market-driven behavior.

Perspective II evaluates the relationship of market-driving behavior on company performance relative to the competing concept of market-driven behavior. This view allows answering the question if market-driving behavior or market-driven behavior is the dominant (i.e. preferable because associated with a better performance outcome) strategy in a given environmental state. Perspective II discussions draw on the results of configuration 2 of the base model (which was an integrated structural model for market-driving behavior and market-driven behavior) and the extended structural model. Table 35 summarizes the choice of structural model for the two perspectives discussed within this chapter:

Choice of structural model for results interpretation		Perspective I (absolute)	Perspective II (relative)
Base model	Configuration 1 (market-driving and market driven behavior separate)	X	
	Configuration 2 (market-driving and market driven behavior integrated)		X
Extended model (market-driving and market driven behavior integrated)			X

Table 35: Choice of structural model for results interpretation

These two perspectives will subsequently be discussed for each of the moderators.

6.1.3.1 Company development phase

In the absolute perspective (Perspective I) the greater positive performance impact of market-driving behavior in the early phase of a company's development is not significant. Hence no conclusions can be drawn from this perspective.

From a relative point of view (Perspective II) the base model suggests that market-driving behavior has a stronger influence on company performance in the late company stage while the results of the extended model show that market-driving behavior is more beneficial in the early company development phase. As these results contradict each other and no clear judgment can be made as to which model is more

correct[590] than the other (see Chapter 6.1.2 for discussion) a theoretical discussion seems appropriate to resolve whether to finally confirm or reject the original hypothesis (H2b).

In an early development phase the company is still more flexible and the employees more entrepreneurially minded which favors the sometimes unconventional behaviors that are underlying market-driving behavior. As has been established in earlier chapters a key benefit of market-driving behavior is its ability to generate legitimacy for the company in the marketplace (i.e. with key stakeholder groups). The incremental effect of this legitimacy creation is obviously greater at the beginning of the process (i.e. in the early days of the company). These considerations together with the discussion that market-driving behavior and market-driven behavior are complements can be taken as a starting point to discuss a market orientation cycle (MOC) that an emerging company goes through during the course of its development.

In the concept and foundation phases the typical start-up company is usually resource poor and needs to resort to "bootstrapping"[591] types of behavior to acquire the resources it needs for survival. Starr & MacMillan argue that entrepreneurs in this situation frequently conduct "social transactions" in order to "secure resources at a lower cost than rational economic exchange would permit"[592]. They do this by using social assets such as obligation, trust, gratitude, liking or friendship. As the exact resources needed to successfully establish the new venture are unknown to the entrepreneur he assembles resources according to a trial-and-error logic.[593] Because emerging companies in this early development phase are still very resource-poor they have only limited means to implement market-driving behavior.

Once an emerging firm has assembled a critical level of resources it can enter the growth phase of its development. Now it possesses enough resources to implement market-driving behavior. On the other hand it still maintains a relatively high level of flexibility with regard to its business model because it does not yet have legacy structures such as well-established distributor relationships or dedicated resources in

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590 The author of this study has a preference for the extended structural model but acknowledges that further research is needed to determine with some certainty that one model is superior to the other.

591 Dew et al. define bootstrapping as "the use of family and friends for resources in place of factor markets"; see Dew et al. (2004), p. 675.

592 Starr and MacMillan (1990), p. 90.

593 See Starr and MacMillan (1990), p. 81.

R&D or production.[594] Therefore market-driving behavior can yield the most benefits in this situation by changing the market and/or behavior of its key entities in a direction that increases the fit with the resource endowment of the firm.[595] This explains why in the early company development phase market-driving behavior has a greater influence on company performance than market driven behavior.

As the company matures (i.e. moves from its growth phase into the consolidation phase) it should shift its focus to market-driven behavior. Its products are now well-established in the market and a significant customer base exists. Partnerships have been entered into as have distribution agreements. Functional departments with specialized teams are in place. The key to success at this point is to keep and satisfy the existing customers. Development activities are geared towards achieving incremental improvements in the product which existing customers value. Market-driven behavior is the best approach to face these challenges. This is also confirmed empirically as market-driven behavior has a bigger performance impact for companies in the late phases of their development.

Subsequent to this third phase in the market orientation cycle is either a decline phase – if the company does not succeed in overcoming organizational inertia[596] – or the restart of the next cycle with a new product or service offering (see Figure 21).

[594] See Christensen and Bower (1996), p. 215.
[595] See Carrillat et al. (2004), p. 8.
[596] See Hannan and Freeman (1984); Hill and Rothaermel (2003), pp. 259ff.

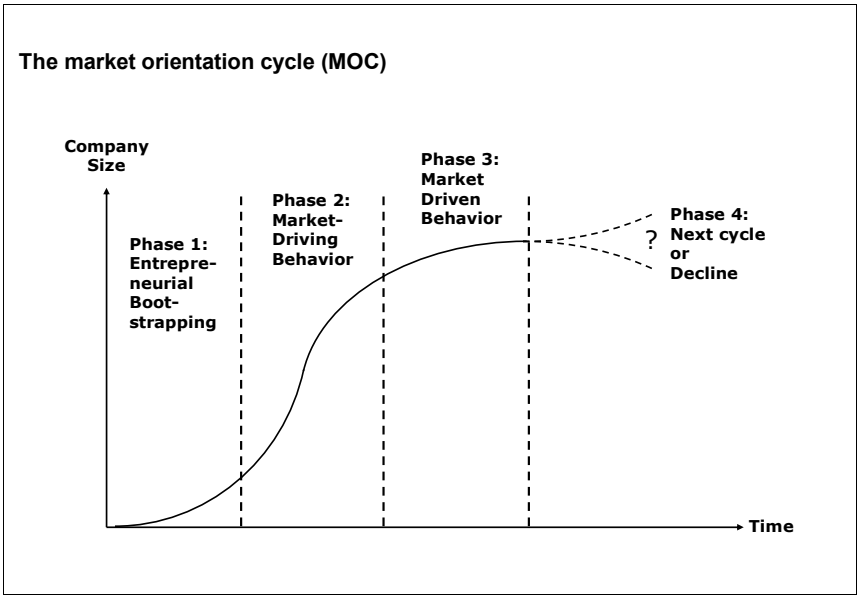

Figure 21: The market orientation cycle

The aggregation of the foundation and growth phases into the early company development phase therefore joins phases which require different market oriented behaviors. This might be the reason why in the simple structural models the mean differences between the two groups were not significantly different and also the differences between groups for the extended structural model were only moderate while the base model even showed a result opposite to the hypothesis.

In summary, H2a is rejected while no unanimous verdict on H2b can be made even though the theoretical discussion suggests that market-driving behavior is likely more beneficial in the earlier part of the company life cycle and market-driven behavior has a stronger positive impact on performance in the later part of the life cycle. The implications for future research projects will be discussed in Chapter 6.4.

6.1.3.2 Industry development stage

The absolute market-driving behavior – performance relationship is not significantly stronger in the early development stage of an industry than in the late industry stage (Perspective I). Therefore this result will not be interpreted.

Market-driving behavior in the relative perspective (Perspective II) is more beneficial in the early industry development stages in the base model but has a stronger impact on performance in the late stages of industry development when looking at the results of the extended structural model.
From a theoretical perspective one could argue as follows: market-driving behavior in the introduction and growth stages of industry development allows the focal firm to achieve a first-mover advantage. Entrenched competitors do not yet exist at this point and entry barriers to the industry are low. The market-driver can enhance the legitimacy of the industry and of its own business model at the same time by utilizing channel-driving, multiplier-driving and customer-driving strategies.
A more detailed understanding of the moderating effect of industry development stage can be derived by taking a closer look at the influence that the industry development stage has on technology turbulence, market turbulence, competitive intensity and regulation intensity. It can be assumed that these four moderators follow a certain pattern depending on the development stage of the industry.

At the dawn of a new industry technology turbulence is medium because only a limited set of players engages in the development of this industry's technology. Market turbulence is also medium because customers are just starting to develop their perceptions about the industry's products and services. Competitive intensity is low because of the limited amount of players in the market as is regulation intensity because in this nascent stage regulation is practically inexistent.

Technology turbulence starkly increases as the industry enters into its growth stage. Subsequently market turbulence and competitive intensity also increase because the different technological options make customers rethink their preferences and lead to a competition for setting the standard. Initial regulation is passed and thus regulation intensity increases.

Eventually a dominant design is developed for the industry which experiences further growth and then evolves into its consolidation stage. Market turbulence decreases as the dominant design becomes the market standard. At the same time technological turbulence decreases as the further development centers around the dominant design. As market growth slows competition intensifies further because growth for the individual company increasingly has to be generated by stealing market share from

others rather than following the general market growth. Regulation intensity also increases further and reaches its high as the industry matures.

In the end the industry enters maturity and eventually goes into decline. Competitive intensity is fierce – especially if barriers to exit exist – and only declines gradually as the first players exit the market. The remaining players increasingly treat the business as a cash cow and do not any longer invest substantially in further technological development. Therefore technology turbulence is very low at that point. Customer preferences are also stable and market turbulence is low. Regulation is now fully developed resulting in high regulation intensity.

Combining the hypotheses about the effect of market-driving behavior with the hypothetical coherence between industry development stage and the other four moderators allows deriving the following relationships.

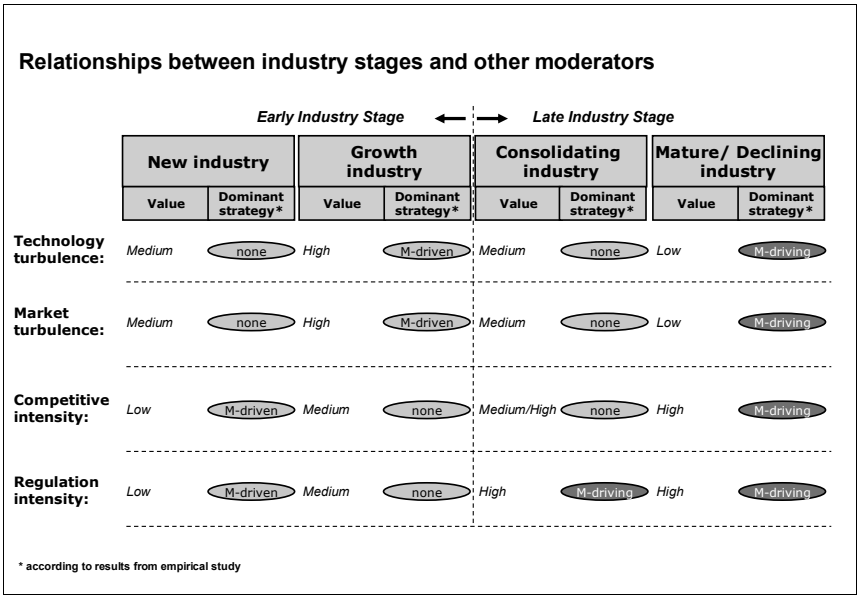

Figure 22: Relationship between industry stages and other moderators

The graphic shows that in the early industry stage market-driven behavior is the dominant strategy while in the late industry stage market-driving behavior dominates. It is also apparent, however, that the dominant strategy will likely be different for each

of the underlying four stages of industry development. This could explain why base model and extended model produced different results and should be an interesting topic for further investigation in future research with larger samples that permit a more fine-grained group comparison.

In summary, H3a is rejected while no unanimous verdict on H3b can be made even though the author believes that the initial hypothesis has been wrong and that market-driving behavior indeed has a greater influence on firm success in the late industry development stage as the theoretical argument above suggests.

6.1.3.3 Order of market entry

Market-driving behavior has a greater influence on firm performance for firms that enter early into the market before a dominant design has been established (Perspective I). However, this result is not significant.

Vis-à-vis market-driven behavior (Perspective II) market-driving behavior impacts performance more strongly in the early order of entry group in the base model and in the late order of entry group in the extended model.
To support the outcome of the base model it can be argued that market-driving behavior can influence the very emergence of a dominant design by means of customer-driving, competitor-driving and/or regulator-driving. An argument for the results of the extended model – which counters the original hypothesis – can be made by considering the relationship between industry development stage and order of entry. Order of entry is not an independent variable as it resembles the industry development stage and produces similar results (e.g. the relative importance of the six market-driving behavior dimensions). This is the case because the groups that were formed differentiate the period before a dominant design has been established from the period afterwards. As the dominant design typically emerges during the growth stage of an industry and the questionnaire asked if the dominant design had existed at the point in time when the company entered the market there is a time lag of about 6.4 years (the average age of the companies in the sample) which brings the moment of the emergence of the dominant design closer towards the end of the growth stage. The two groups for order of entry should hence be similar to the ones for the industry development stage. Figure 23 illustrates this reasoning.

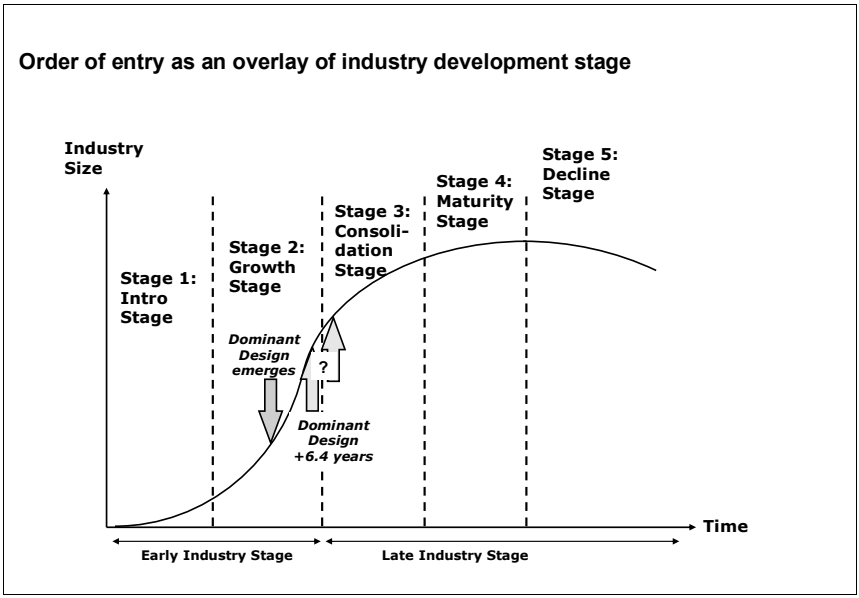

Figure 23: Relationship between order of entry and industry stage

A look at the group sizes suggests that the shifted moment of the emergence of the dominant design actually falls at the beginning of the consolidation stage of the industry as the early order of entry group is slightly larger than the early industry development stage group.[597]

In summary, H4a is rejected while no unanimous verdict on H4b can be made even though – given the conceptual underpinning discussed above – the author considers the results of the extended structural model to be true and the initial hypothesis to be wrong. Market-driving behavior is relatively more beneficial after the emergence of a dominant design because before this emergence technology turbulence and market turbulence are very high which favours market-driven behavior. The results from the extended structural model back this reasoning.

[597] See Chapter 5.2.2 for the detailed breakdown of the sample.

6.1.3.4 Technology turbulence

In environments with low technology turbulence market-driving behavior has a greater influence on company performance than in highly technologically turbulent environments (Perspective I). This is understandable because increasing technology turbulence leads to more frequent and more radical shifts in the technology employed in an industry. These shifts counter any deliberate market-driving efforts that might have tried to move technological preferences of customers, competitors or regulators in a particular direction. An additional explanation for this outcome can be built on the theory of organizational learning[598]. Transferring the concept of organizational learning to the context of market orientation[599] it can be argued that market-driving behavior represents a way of exploratory learning with regards to the company's stakeholder groups. Market-driving behavior enables the company to detect and shape new technological trends and ideas that challenge existing cause–effect relationships.[600] In an environment with otherwise low technological turbulence this provides a means of differentiation vis-à-vis competitors. In environments with high technological turbulence, however, this differentiation potential is not given in the same way. Moreover, exploratory learning seems more risky in these settings, as highly turbulent environments constantly create new technological solutions by definition[601] which could lead to the creation of new markets or cause a shift in consumer preferences. Rather the quick commercialization (i.e. exploitation) of technological solutions is required before they are outdated.[602] Comparing the two facets of organizational learning, exploratory learning and hence market-driving behavior is more appropriate in less turbulent settings which is in line with the empirical results.

In comparison with market-driven behavior (Perspective II) market-driving behavior in both the base model and the extended model has a greater impact in environments of low technology turbulence. This suggests that the results for technology turbulence

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598 The literature about organizational learning differentiates two types of learning: exploitative and explorative learning (see e.g. March (1991)). The difference is that "exploitation refers to learning gained via local search, experimental refinement, and selection and reuse of existing routines. Exploration refers to learning gained through processes of concerted variation, planned experimentation, and play" (Baum et al. (2000), p. 768).

599 See e.g. Jaworski and Kohli (1996).

600 See Atuahene-Gima and Murray (2007).

601 See Debenham and Wilkinson (2006).

602 See Jansen et al. (2006).

are more solid than the ones of previously discussed moderators. The likely explanation once more is that technology turbulence leads to erratic changes. Market-driven behavior allows responding to those changes more readily and is therefore the more beneficial posture. The changes may on the other hand be opposed to the direction in which market-driving activities were designed to compel the market and therefore may have adverse effects on the effectiveness of these.

In summary, H5a and H5b are confirmed and the theoretical discussion substantiates these results. Market-driving behavior – absolutely and compared to market-driven behavior – has a stronger positive influence on performance in environments with low technology turbulence.

6.1.3.5 Market turbulence

The case for market turbulence is very similar to the one for technology turbulence. Market-driving behavior has a bigger influence on performance in environments of low market turbulence (Perspective I), i.e. in environments with more stable customer preferences. This is likely the case because more stable preferences offer the market-driving company the opportunity to gradually shape them through its activities. Again drawing on organizational learning theory[603] and in analogy with technological turbulence one may argue that the differentiation potential generated by exploratory learning (i.e. market-driving behaviour) with regard to customer preferences is stronger in less turbulent markets. With other external impulses absent customers are more likely to change their preferences and behaviours based on the direction they get from the market-driving firm. In highly turbulent markets, however, constantly altering consumer preferences are inherently a part of the market structure, rendering differentiation by such a strategy impossible. High market turbulence means that customer preferences can undergo sudden changes that were not anticipated by the market-driving company and can therefore counteract its market-driving efforts.

Market-driven behavior on the other hand (Perspective II) enables a company to adapt quickly to changes in customer preferences because its emphasis is on discovering and

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[603] The parallel between market orientation and learning orientation is well-documented in the literature and e.g. Slater and Narver (1995) consider that "a market orientation is inherently a learning orientation." (p. 67).

responding promptly to these new preferences.[604] It is therefore better suited to react to foreign-induced change caused by external market turbulence whereas market-driving behavior intends to self-induce change to the market.

In summary, H6a and H6b are confirmed and the theoretical discussion lends credibility to these results. Market-driving behavior – absolutely and compared to market-driven behavior – has a stronger positive performance impact in less turbulent markets.

6.1.3.6 Competitive intensity

In highly competitive environments market-driving behavior has a bigger – but not significant – influence on company success than in environments of low competitive intensity (Perspective I).

Market-driving behavior has a relatively greater impact on firm success in highly competitive environments (Perspective II) in both the base model and the extended model. This is potentially because market-driving behavior can create a competitive advantage. The strength of a well-conceived market-driving strategy lies precisely in that it can push the market in a direction where it better matches its own competencies and the other players have to adapt to this new market reality. In environments with less competitive intensity both the need and the value of market-driving activities are diminished. Where there is a lot of competitive intensity it is more important to stay one step ahead of the competition by proactively shaping competitive interactions. A market-driven strategy which relies on only responding to the moves of other players is an uphill battle and destined to produce inferior results.

In summary, H7a is rejected while H7b is confirmed. A significantly higher positive influence on performance in highly competitive environments could not be proven but market-driving behavior was clearly preferable to market-driven behavior in these environments.

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[604] This reasoning receives some empirical support from a study by Diamantopoulos and Hart (1993) who find a stronger relationship between market-driven behavior and company performance in a highly turbulent market. They also find that the market-orientation – performance relationship is stronger for low market turbulence on a number of indicators that can be interpreted as market-driving activities, e.g. pre-purchase advice (customer-driving) and new product development/ product modification (p. 111).

6.1.3.7 Regulation intensity

Market-driving behavior produces better performance in environments of high regulation intensity (Perspective I). This result, however, does not pass the significance threshold and is thus not further discussed.

In comparison with market-driven behavior (Perspective II), market-driving behavior is relatively more beneficial in environments with low regulation intensity in the base model and in highly regulated environments in the extended model. In support of the results of the base model one may argue that in environments where no or little regulation exists it might be easier for a market-driving company to influence the initial regulation that is introduced at a certain point in the development of an industry. On the other hand the results of the extended model can perhaps be explained by considering the two extremes of the regulation intensity spectrum. If there is no regulation then all resources deployed for regulator-driving activities will be a waste and not cause any change in the company's position or environment. In contrast, if there is a lot of regulation that constrains the activities of the company then successful regulator-driving activities might bring a substantial improvement in the company's position or the environmental conditions it faces. Starting from that end of the spectrum there would be a variety of different regulations that affect the business of the company to varying degrees. If focusing on the issues that most adversely affect the company and sequentially implementing regulator-driving activities – a procedure that appears sensible for most companies – it can be hypothesized that one would see a decreasing marginal utility of market-driving behavior.

In summary, H8a is rejected while no unanimous verdict on H8b can be made even though the theoretical reasoning based on the economic concept of decreasing marginal utility makes a strong point for market-driving behavior being the best strategy in a highly regulated environment. On the other hand, when regulation is just starting to develop (i.e. regulation intensity is low) it is a factor of uncertainty which can best be mitigated by being able to respond flexibly. Market-driven behavior seems most appropriate at that point.

6.1.3.8 Degree of innovation

Market-driving behavior has a stronger positive influence on firm performance for companies with a low degree of innovation (Perspective I). This supports the

hypothesis and is probably due to the fact that less innovative products or services need a more proactive, market-facing approach in order to ensure market success. When there is no competitive advantage through product differentiation there needs to be a differentiation in terms of strategy. Market-driving behavior can help to achieve this differentiation.

The relative perspective (Perspective II) offers mixed results: Market-driving behavior has a relatively stronger influence on firm performance in firms with a high degree of innovation in the base model and in firms with a low degree of innovation in the extended model. The literature clearly lends support to the original hypothesis and thus the outcome of the base model.[605] An explanation for the results from the extended model may be found in the distribution of high and low degree of innovation companies within the sample. If the construct does not discriminate enough between those two groups the resulting findings may be distorted or inconclusive. A glance at the descriptive statistics does not support this notion though.

Another explanation might have to do with the timing of cause and effect. It is possible that the performance effect of market-driving behavior is more immediate for incremental innovations than it is for radical innovations as usually a bigger change is required for the market to accept a radical as opposed to an incremental innovation. The result we see could therefore mean that market-driving behavior has an immediate positive impact on firm performance for firms with incremental innovations. The larger positive impact it should have for firms with radical innovations cannot be observed in the data as the conducted study was a cross section and not a longitudinal study.

Finally, the innovation construct itself might hold the answer if the original hypothesis was right or wrong. Zheng Zhou et al. point out that there are two types of innovations: technology-based and market-based innovations. Technology-based innovations are directed towards customers in existing markets and provide performance improvements relative to existing products. Market-based innovations are directed towards emerging markets and provide a new customer value equation focusing on a different set of attributes rather than improvements on the existing set of attributes.[606]

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[605] See Chapter 3.4.8 for the discussion of the literature.
[606] See Zheng Zhou et al. (2005), p. 43; also see Benner and Tushman (2003).

Breakthrough innovations on the technology dimension have been termed "radical innovations"[607] whereas on the market dimension they are called "disruptive innovations"[608]. Zheng Zhou et al. find that market-driven behavior "has a positive impact on tech-based innovation but a negative impact on market-based innovation"[609]. They also show a positive impact of both technology-based and market-based innovation on a subjective measure of firm performance. From their discussion it can further be concluded that market-driving behavior would most likely have a positive impact on market-based innovation.

Because this study measured the degree of innovation according to the technology-based innovation logic[610] it becomes clear why the results show that market-driven behavior has a greater influence on firm performance for companies with a high degree of innovation. Subsequent studies should therefore try to test the moderating effect of the degree of innovation using a market-based innovation construct.[611] Here the hypothesis formulated in Chapter 3 should hold that market-driving behavior has a greater performance impact for companies that introduce disruptive (as opposed to continuous) innovation. To conclude this discussion Figure 24 gives an overview of the hypothesized relationships between market-oriented behavior, type of innovation and performance.

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607 See Chandy and Tellis (1998).
608 See Christensen (1997).
609 Zheng Zhou et al. (2005), p. 54.
610 The indicators utilized for measuring the degree of innovation in this study at least partly resemble the ones Zheng Zhou et al. present for their technology-based innovation construct; see Appendix 8.3 and Zheng Zhou et al. (2005), p. 57.
611 A starting point could be the newly developed "disruptiveness" construct by Govindarajan & Kopalle; see Govindarajan and Kopalle (2006).

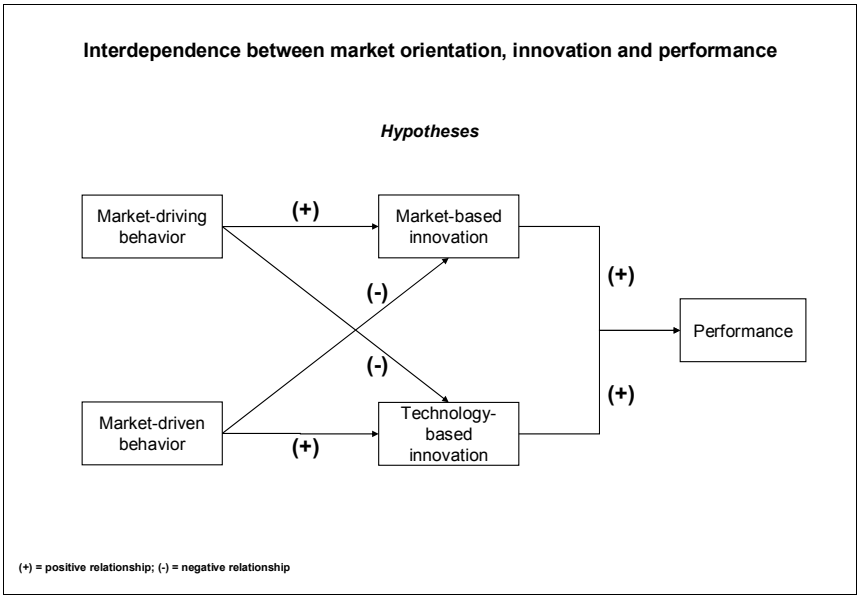

Figure 24: Interdependence between market orientation, innovation and performance

In summary, H9a is confirmed while no unanimous verdict on H9b can be made which is likely driven by the innovation construct used in this study. However, based on the theory review above one may hypothesize that market-driving behavior should have a stronger positive influence on performance for a high degree of market-based innovation and market-driven behavior should have a more positive performance impact for a high degree of technology-based innovation.[612] The hypotheses laid out in Figure 24 also respond to demands in the market orientation literature to include innovation as a mediator between market orientation and company performance.[613]

Implications for entrepreneurs and researchers will be discussed next.

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[612] The second half of this hypothesis has previously been confirmed empirically; see Zheng Zhou et al. (2005), p. 54.

[613] See e.g. Hurley and Hult (1998); Han et al. (1998).

6.2 Implications for entrepreneurs

The interpretation of the results that was given on the previous pages allows formulating a few key implications of this dissertation for entrepreneurs.

Market-driving behavior has been shown to be an important concept for entrepreneurs to understand because it has clear and demonstrable repercussions on company success. Market-driving behavior does contribute positively to company performance.

From a general perspective the results suggest that emerging firms can expect a stronger impact on performance from market-driving behavior than from market-driven behavior. This is certainly true when market-driving behavior is embedded in the broader context of market orientation as has been done in the extended structural model. Another general conclusion is concerned with the importance among the market-driving behavior dimensions. Employee-driving behavior has the strongest influence on market-driving behavior. Entrepreneurs should therefore encourage their employees to behave proactively, provide them with the tools and training to lead customers, let them dedicate some time on self-selected projects and provide proper incentives and rewards for such behavior. Other important dimensions of market-driving behavior are customer-driving behavior, channel-driving behavior and multiplier-driving behavior. These will be described in more detail below. Competitor-driving behavior has no significant influence on market-driving behavior from a general perspective and regulator-driving behavior has a negative impact and should therefore be avoided by emerging firms.

With the scale developed for the empirical study entrepreneurs also have a tool at hand with which they can measure their own company's level of market-driving behavior. As the scale is composed of six dimensions of market-driving behavior there is also the possibility to determine the intensity of different aspects of market-driving behavior. This enables the company to get a better picture of its own strengths and weaknesses. This internal perspective has in a second step to be combined with the external perspective about the company's position in its environment.

Three key dimensions to consider for this external view are: company development phase, industry development stage and degree of innovation. These three are deemed most important because they represent independent environmental variables while the other moderators tested in the empirical study – i.e. order of entry, technology

turbulence, market turbulence, competitive intensity and regulation intensity – are (at least partly) determined by the industry development stage as has been illustrated in Chapters 6.1.3.2 and 6.1.3.3. On the other hand it can be argued that these four constitute purer moderators which in turn reflect upon the overarching moderator of industry development stage.

Once the external position of the company has been established it can be determined whether market-driving or market-driven behavior is the more beneficial choice for the company. In the cases where market-driving behavior seems to be more appropriate conclusions can also be drawn about which dimensions of market-driving behavior to focus on. Subsequently these dimensions will be discussed for the company development phase and the industry development stage. Degree of innovation will be excluded here because the discussion in Chapter 6.1.3.8 has shown that the type of innovation (technology-based vs. market-based) is an important consideration in this context and no empirical evidence about market-based innovation was generated in this study.

In an early company development phase employee-driving behavior, multiplier-driving behavior and customer-driving behavior contribute most positively to market-driving behavior.[614] The company should train, incentivize and reward its employees for market-driving behavior. Customers will need to be persuaded of the superior utility of the firm's products or services in order for them to change their preferences and embrace the new offerings. Finally, multiplier-driving behavior can help to create legitimacy with customers for the new products and ways of distribution. This can e.g. be achieved by supplying content to the media, securing financial support from renowned investors or associating the emerging firm with reputable partner firms or institutions.

In a late industry development stage companies should emphasize employee-driving behavior, channel-driving behavior and customer-driving behavior. This appears sensible because during an industry's consolidation and maturity stages differentiation can predominantly be achieved via a firm's employees because products and services

[614] This is in line with the ideas of Jahawar & McLaughlin who propose that firms in their start-up stage will proactively cater to the needs of stockholders, creditors (i.e. multipliers) and customers and will accommodate the needs of employees and suppliers; see Jawahar and McLaughlin (2001), p. 410.

are becoming more similar in the competitive process after a dominant design has been established. The distribution structures are for the most part developed and the market-driving firm should try to acquire control over them. It will also be vital to develop and introduce innovative products that go beyond what is currently offered in the market.

A short example will illustrate the suggestions provided above. Probably the most successful emerging company of the past 10 years was Google. When Larry Page and Sergey Brin started Google in 1998 they entered the web search industry which was at that time already in its consolidation phase.[615] Initially Google engaged intensively in multiplier-driving, employee-driving and customer-driving activities. After developing a prototype of their technology at Stanford University they secured an initial angel investment by Andy Bechtolsheim (co-founder of Sun Microsystems) in the second half of 1998 and a first round of VC financing by Sequoia Capital and Kleiner Perkins Caufield & Byers in June 1999. They also supplied information to the media and received coverage from important publications like USA TODAY, Le Monde and PC Magazine. They scaled their staff to over 50 employees by the end of 1999. The workspace in their office was designed to maximize interaction (e.g. no cubicles) and employees were given all kinds of perks in order to create a productive work atmosphere. The two founders held weekly meetings with all employees where they discussed the strategic direction of the firm and encouraged employees to develop new, innovative products and features. In the second half of 1999 they convinced AOL/Netscape to use Google technology for their web search service. This deal brought a leap forward in traffic levels for Google and significantly increased its legitimacy and visibility. Deals with Yahoo, NetEase (China) and BIGLOBE (Japan) followed in June/July 2000. Later that year the new product Google Toolbar was introduced which enabled web search without prior visit of the Google website. Channel-driving activities were added during the first half of 2001 when a series of innovations and partnerships brought Google products to mobile phone users. The company reached profitability in late 2001.[616]

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[615] Excite had already been founded in 1993, Yahoo, Lycos, Infoseek and Webcrawler in 1994, Altavista in 1995, Hotbot (powered by Inktomi) in 1996, Ask Jeeves in 1997; Webcrawler was bought first by AOL in 1995 and then by Exite in 1996/97; Disney took a large stake in Infoseek in 1998; Hotbot was sold to Lycos in the same year; AOL launched AOL NetFind (powered by Excite) in 1997; MSN Search was introduced in 1998; for a more complete history see www.searchenginehistory.com or www.searchenginewatch.com.

[616] The history of Google is taken from www.google.com/corporate/history.html

Summing up, Google was a company in its early development phase in an industry in its late development stage. The results from this study suggest that market-driving behavior should have been the strategic posture of choice for Google and should have had a positive impact on firm performance. The anecdotal evidence of the example supports these finding.

Some implications for researchers will be presented next.

6.3 Implications for researchers

The results presented in this investigation have several important ramifications for researchers.

An important overall implication is the relativization of a long-held dogma in marketing theory. For a long time it has been taken for granted that companies have to "listen to their customers" and "satisfy customer needs" no matter what.[617] This thesis in contrast has argued and empirically shown that firms have possibilities to proactively shape customers' and other stakeholders' preferences and actions. And it has shown that there are circumstances where this market-driving behavior leads to superior performance for the respective companies.

Furthermore, the relatively new concept of market-driving behavior has been better described than in previous works both expanding it and backing it up with an extensive review of the relevant literature.[618] It was also adapted to the context of emerging firms. The first objective of this thesis was therefore achieved. Two interesting new dimensions – multiplier-driving behavior and employee-driving behavior – have been argued and empirically shown to be part of the market-driving behavior concept for emerging firms. They probably also deserve attention in the context of established firms.

Additionally, it has been shown that market-driving behavior – though materially different from the classical understanding of market orientation – can be subsumed under a broader definition of market orientation which differentiates the two currents

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[617] See e.g. Drucker (1954); Day (1990); Day (1999).

[618] See e.g. Jaworski et al. (2000); Kumar et al. (2000); Zeithaml and Zeithaml (1984); Hamel (1996); Jaworski and Kohli (1996); Hills and Sarin (2003); Carrillat et al. (2004); Hills and Bartkus (2007).

market-driving behavior and market-driven behavior. It was also suggested that market-driving behavior and market-driven behavior are complements rather than substitutes.[619] These are important steps to unify the findings previously made in this field and to ensure a consistent theoretical frame for future research in this area. The second research objective could thus be achieved.

Besides, the measurement of market-driving behavior has been refined based on a previously developed scale.[620] The new measurement scale was particularly designed in the context of emerging firms. Its dimensions and many of its indicators, however, might also possess validity in the context of established companies. Whereas there surely remains some work to be done to further improve the measurement scale the author of this dissertation believes that this study contributes an important step in this direction. The third objective of this thesis was consequently achieved.

Moreover, market-driving behavior has been shown to have a significant performance impact in emerging firms. Hence the conceptual reasoning as presented by Kumar et al. (2000) and Jaworski et al. (2000) about positive performance implications can be substantiated by empirical evidence for emerging firms for the first time. This was the fourth objective of this thesis. Because a lot of research in entrepreneurship focuses on the success factors of new ventures[621] the importance of the market-driving behavior concept in this context is immediately apparent and should be appreciated in future research. It could be shown that market-driving behavior even had a greater impact on the performance of emerging firms than market-driven behavior when embedding both in a common market orientation framework. Although not explicitly tested in the empirical study the positive performance impact should also exist in established firms.

Finally, different environmental moderators whose effect has previously been discussed for market-driven behavior[622] could also be shown to influence the relationship between market-driving behavior and performance. It was established that one has to take into consideration timing and environmental conditions when

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619 While e.g. Jaworski et al. (2000) consider market-driven behavior and market-driving behavior as two complimentary approaches to market orientation, Hills and Sarin (2003) and others see market-driving as an alternative paradigm to market-driven behavior.

620 See Hills et al. (2005); Hills and Bartkus (2007).

621 See e.g. Cooper and Bruno (1977); Hofer and Sandberg (1987); Fischer and Reuber (1995); Chrisman et al. (1998); Gruber (2004).

622 See e.g. Jaworski and Kohli (1993); Slater and Narver (1994); McKee et al. (1989).

determining which of the two market-oriented behaviors is more beneficial. This was the fifth objective of this thesis. The clearest and most significant results regarding the moderators investigated in this dissertation were obtained for technology turbulence and market turbulence. Common sense in Entrepreneurship research is that young start-ups should enter dynamic environments as there are more opportunities to differentiate from established companies which usually have more resources and experiences.[623] The results from this study, however, suggest that high-tech start-ups can increase their performance by being market-driving even in relatively stable environments (i.e. environments with low technology and market turbulence).

The final research objective was to point out limitations of the research presented in this thesis and suggest priorities for further research. This will be done in the next section. Figure 25 summarizes the achievements with regard to the research objectives formulated in Chapter 1.

#	Research Objective *(Research Question)*	Achieved
1	**Describe MDB in emerging firms** *(What is market-driving behavior in emerging firms?)*	✓
2	**Structure the different currents of market orientation** *(What is the relationship between market orientation, market-driving behavior and market driven behavior?)*	✓
3	**Develop a measurement scale for MDB in emerging firms** *(How can market-driving behavior be measured?)*	✓
4	**Investigate performance impact of MDB** *(What are the consequences of market-driving behavior?)*	✓
5	**Evaluate moderators of MDB** *(How is the relationship between market-driving behavior and firm performance moderated by the environment?)*	✓
6	**Discuss limitations and charter course for further research** *(What are the limitations of this study? Which routes for future research can be suggested?)*	**Chapter 6.4**

Figure 25: Achievement of research objectives

[623] See Cooper et al. (1986); Aldrich and Auster (1986); Stinchcombe (1965).

6.4 Limitations of analysis and suggestions for further research

Apart from the limitations of the measurement scale described and evaluated in Chapter 5 there is a number of limitations for the current study that should be considered when interpreting the results and that can be translated into suggestions for future research.

First and foremost caution should be used when generalizing the findings of the empirical study. Because both the measurement scale was optimized for and the sample consisted of emerging technology firms in Germany it is possible that the results obtained only hold true in this context. It has, however, been noted – at least theoretically – that the same or similar results are also to be expected in the context of established companies and in other countries. Future research should be directed to validate the findings presented here in other contexts.

Secondly, there are limitations that arise from the methodology employed in the empirical study. As PLS analysis is used to detect the relationships between constructs only linear relationships can be identified. Therefore potential non-linear relationships between the six dimensions of market-driving behavior, the market-driving behavior construct, and performance could have gone unnoticed. Also, certain relationships that were found to be not significant in this study might in reality be non-linear relationships. Other research setups in the future should be able to uncover these non-linear relationships in case they exist.

A third limitation has to do with the way the relationship between market-driving behavior and firm performance has been investigated. Objective of the empirical study was to establish that there is a performance effect of market-driving behavior. No more detailed analysis was conducted to determine which of the six dimensions of market-driving behavior is responsible for this performance effect. This will be an interesting question to be answered by future research endeavors.

A related topic is the examination of the influence of different environmental moderators on this relationship. A first step already has been taken in this thesis by investigating the influence of eight moderators. Future research should take up this effort and expand in three directions:

One, a more detailed analysis of the moderators utilized in this study should foster a more thorough understanding of the inner workings of the market-driving behavior – performance relationship. The sample size of the empirical study only permitted to form two groups for company development phase and industry development stage. But as all stages introduced in the theoretical part differ significantly they should ideally be individually investigated. Also the degree of innovation moderator could be detailed further by distinguishing market-based and technology-based innovations as was described in Chapter 6.1.3.8.

Two, a combination of the utilized moderators would likely lead to additional insight with particular significance for practitioners. As companies do not face environmental moderators individually but rather operate in a context where they occupy a position along multiple dimensions (e.g. a company in its growth stage in a mature industry with a radical innovation) the simultaneous analysis of these moderators would allow deriving generic strategies for each potential strategic position. This could yield especially valuable results for entrepreneurs who seek advice on how to best face their environments. The results obtained in this thesis already were noteworthy and suggest that more fine-grained investigations of these moderators would likely generate exciting and worthwhile conclusions.

Three, additional moderators should be tested in order to find out whether they have a significant influence on market-driving behavior. Particularly moderators that might affect one of the dimensions of market-driving behavior could be meaningful. In this thesis only three of the six market-driving behavior dimensions (customer-driving, competitor-driving and regulator-driving) were matched with moderators (market turbulence, competitive intensity and regulation intensity). Other relevant moderators could be identified for channel-driving behavior (e.g. direct vs. indirect distribution system), multiplier-driving behavior (e.g. setup of communication function) and employee-driving behavior (e.g. employee compensation scheme).

An interesting related topic is the investigation of antecedents and consequences of market-driving behavior. The antecedents of market-driving behavior were not in the scope of this dissertation. It will, however, be extremely interesting to research them in order to provide practitioners with advice about the prerequisites for implementing market-driving behavior. It should be equally intriguing to better understand the consequences of market-driving behavior. This thesis focused on the performance

implications and gave some hints as to the consequences of market-driving behavior on competitive advantage. Other possible consequences to consider could be found for each important stakeholder group like customers (e.g. customer satisfaction or customer loyalty), competitors (market share, industry concentration) or employees (e.g. employee satisfaction or team spirit).

Finally, limitations arise from the study setup as a cross-sectional study. This research design does not allow discovering cause-effect relationships that occur with a time lag. It would therefore be desirable to fill this gap in future studies by conducting longitudinal observations of the relationship between market-driving behavior and firm success.

7. Summary

This doctoral dissertation discusses market-driving behavior – i.e. the behavior of a company that is directed to fundamentally change the structure of the market and/or behavior of market stakeholders – in emerging firms.

Prior research on the topic of market-driving behavior has predominantly been of a theoretical nature and was focused on established companies. Empirical studies to date have been case-based due to the lack of a measurement scale.

The theoretical discussion of this thesis discusses market-driving behavior in the context of market orientation. It is argued that market orientation effectively encompasses two different currents – market-driving behavior and market-driven behavior – which differ mainly in the responsiveness step of the market orientation process.

Building on an earlier intent to develop a measurement scale for market-driving behavior a scale for measuring market-driving behavior in emerging firms is proposed that consists of six dimensions: customer-driving behavior, competitor-driving behavior, channel-driving behavior, regulator-driving behavior, multiplier-driving behavior and employee-driving behavior.

The empirical study of this dissertation uses data from a sample of 224 emerging technology firms in Germany. A structural equation model is tested using the PLS methodology. In this model the relationship between market-driving behavior (and for comparison purposes market-driven behavior) and company success is investigated. Several environmental moderators are introduced to gain additional insight.

Results indicate that market-driving behavior has a significant positive influence on firm success. In order of their impact employee-driving behavior, customer-driving behavior, channel-driving behavior and multiplier-driving behavior were found to be the principal drivers of market-driving behavior in emerging firms. Competitor-driving behavior did not have a significant impact. Regulator-driving behavior produced a negative impact. Company development phase, industry development stage and degree of innovation are identified as key moderators of the market-driving behavior – performance relationship and the strongest moderation is found for technology

turbulence and market turbulence. The measurement scale is found to possess good reliability and validity.

Implications arise for both practitioners (i.e. entrepreneurs) and researchers. Entrepreneurs should assess their position for the aforementioned environmental variables in order to decide which market oriented behavior will be most beneficial for them. In case they want to implement a market-driving strategy they can also derive which actions in terms of the six market-driving behavior dimensions should receive their attention.

Researchers should benefit from the theoretical and empirical findings in this study in various ways. The concept of market-driving behavior has been elaborated in more detail than was previously available leading to two new aspects – multiplier-driving behavior and employee-driving behavior – being included in the domain of the construct. The comparison with market-driven behavior has further generated interesting insights into the (complementary) relationship of the two currents of market orientation. The idea of a market orientation cycle was introduced. The measurement scale which was a refinement of an earlier developed instrument should prove useful for future empirical research. The results and subsequent discussion presented herein also offer numerous opportunities for future research that elaborates on the different aspects. One particularly interesting topic is the antecedents of market-driving behavior. By understanding them it will be possible to develop recommendations on how to foster market-driving behavior in a particular organization.

The seeds are there – careful future research should enable a rich harvest.

8. Appendix

Appendix 8.1 contains the cover letter sent out as invitation to participate in the empirical study. The questionnaire that was utilized in this study is shown in Appendix 8.2. Appendix 8.3 is the statistical appendix.

8.1 Cover letter

The survey was distributed via e-mail. The text of the initial invitation to participate as well as the two reminders that were sent out two weeks and four weeks after the initial invitation are shown below.

8.1.1 Initial Invitation

[Anrede] [Titel] [Nachname],

Die RWTH Aachen (Rheinisch-Westfälische Technische Hochschule Aachen) führt im Moment ein Forschungsprojekt zum Thema "Unternehmerische Marktorientierung und Marktentwicklung" durch.

Die Ergebnisse dieser Studie werden uns ermöglichen, Aussagen darüber zu treffen, in welchem Umfeld Unternehmen mit einem pro-aktiveren bzw. reaktiveren Verhalten gegenüber ihren wichtigsten Stakeholdern (Kunden, Wettbewerbern, Regulatoren, Mitarbeitern, etc.) erfolgreicher sind. Klare strategische Empfehlungen für individuelle Unternehmen werden sich daraus ergeben.

Ihr Unternehmen wurde in einem aufwändigen Verfahren aus einer Ausgangsbasis von über 500.000 Unternehmen als für unsere Untersuchung passend identifiziert.

Deshalb würden wir uns sehr freuen, wenn Sie sich an unserer Studie beteiligen würden. Die Befragung nimmt ca. 20 min. Ihrer Zeit in Anspruch und erfolgt über das Internet (es besteht auch eine Möglichkeit den Fragebogen als Papierversion zu bearbeiten, sollten Sie dies bevorzugen). Alle Angaben werden selbstverständlich streng anonym behandelt und eine Auswertung der Ergebnisse erfolgt nur in aggregierter Form, die keinerlei Rückschlüsse auf einzelne Unternehmen, Personen oder Vorhaben zulässt.

Im Falle Ihrer Teilnahme bekommen Sie einige Wochen nach Ende der Studie die Ergebnisse der Untersuchung zur Verfügung gestellt. Da sich das Forschungsprojekt auf ein sehr neues Gebiet der Entrepreneurship (Unternehmertum) Forschung konzentriert, sind spannende Ergebnisse zu erwarten.

Um teilzunehmen, gehen Sie bitte auf folgenden Link:
http://www.win.rwth-aachen.de/survey//index.php?sid=26

und geben dort Ihr persönliches Schlüsselwort:
[Token] ein.

Eine Vorabansicht des Fragebogens ist auf der Website verfügbar. Sollten Sie weitere Fragen haben, steht Ihnen Herr Dipl.-Kfm. Jesko-Philipp Neuenburg unter neuenburg@win.rwth-aachen.de oder Tel. 0163-7123-595 gerne (auch ausserhalb der üblichen Bürozeiten) zur Verfügung.

Vielen Dank im Voraus für ihre Unterstützung!

Mit freundlichen Grüßen,
Jesko-Philipp Neuenburg

Doktorand
RWTH Aachen
Lehrstuhl WIN (Wirtschaftswissenschaften für Ingenieure und Naturwissenschaftler)
Templergraben 64
52056 Aachen

8.1.2 Reminder I

[Anrede] [Titel] [Nachname],

bisher haben wir von Ihnen noch keine Teilnahme an unserer Studie zum Thema "Unternehmerische Marktorientierung und Marktentwicklung" registriert.

Die renomiertesten Wirtschaftshochschulen weltweit betrachten neuerdings das Spannungsverhältnis zwischen "Marktorientierung" und "Marktentwicklung" als einen Schlüsselfaktor, um zu erklären, wie SAP sich trotz eines übermächtigen Konkurrenten Microsoft zum zweitgrößten Softwareunternehmen weltweit emporarbeiten konnte, wie IKEA aus bescheidenen Anfängen zum weltgrößten Möbelimperium aufsteigen konnte oder wie Google innerhalb von nur 8 Jahren über 100 Mrd. US-$ an Wert (auf Basis des momentanen Börsenwertes) schaffen konnte.

Unser Forschungsvorhaben ist das erste seiner Art in Deutschland und stellt bei einigen Aspekten der Marktentwicklung eine weltweite Pionierarbeit dar. Bitte unterstützen Sie uns durch Ihre Teilnahme, damit wir eine ausreichend große Stichprobe zur Verfügung haben, um aussagekräftige Ergebnisse zu erhalten.

Zur Befragung gelangen Sie, indem Sie auf folgenden Link gehen:
http://www.win.rwth-aachen.de/survey//index.php?sid=26

und dort Ihr persönliches Schlüsselwort:

[Token] eingeben.

Bei weiteren Fragen, stehe ich Ihnen gerne unter neuenburg@win.rwth-aachen.de oder Tel. 0163-7123-595 zur Verfügung.

Vielen Dank für ihre Unterstützung!

Mit freundlichen Grüßen,
Jesko-Philipp Neuenburg

Doktorand
RWTH Aachen
Lehrstuhl WIN (Wirtschaftswissenschaften für Ingenieure und Naturwissenschaftler)
Templergraben 64
52056 Aachen

8.1.3 Reminder II

[Anrede] [Titel] [Nachname],

ich hoffe, Sie haben schöne Pfingstfeiertage verbracht. Gerne wollte ich Sie nochmal auf unsere Studie zum Thema "Unternehmerische Marktorientierung und Marktentwicklung" hinweisen.

Um eine ausreichende Stichprobe für meine Doktorarbeit zur Verfügung zu haben, fehlen mir leider noch die letzten 100 Teilnehmer. Ohne diese kann keine aussagekräfte Auswertung erfolgen. Um mein Promotionsvorhaben also erfolgreich zum Abschluss zu bringen, bitte ich Sie nochmals inständig um Ihre Teilnahme!

Da ich gerne Ende der Woche mit der Auswertung der Daten beginnen würde, wäre es fantastisch wenn Sie bis Freitag, 9.6.2006, 18h (Anpfiff des Eröffnungsspiels der Fussball-WM) die Zeit zur Beantwortung finden würden.

Anbei nochmal der Link zur Befragung:
http://www.win.rwth-aachen.de/survey//index.php?sid=26

und Ihr persönliches Schlüsselwort**:** [Token]

Bei weiteren Fragen, stehe ich Ihnen gerne unter neuenburg@win.rwth-aachen.de oder Tel. 0163-7123-595 zur Verfügung.

Herzlichen Dank für ihre Unterstützung!

Mit freundlichen Grüßen,
Jesko-Philipp Neuenburg

Doktorand
RWTH Aachen
Lehrstuhl WIN (Wirtschaftswissenschaften für Ingenieure und Naturwissenschaftler)
Templergraben 64
52056 Aachen

8.2 Survey instrument

The following is the questionnaire used for the empirical study.

Bitte senden Sie diesen Fragenbogen

per Fax an die Nummer 0241-80-92371

oder

per Post an:

RWTH Aachen
Lehrstuhl WIN (Wirtschaftswissenschaften für Ingenieure und Naturwissenschaftler)
Dipl.-Kfm. Jesko-Philipp Neuenburg
Templergraben 64

52056 Aachen

Fragebogen „Unternehmerische Marktorientierung und Marktentwicklung“

- Empirische Untersuchung an der RWTH Aachen -

Erläuterungen

- Diese Untersuchung befasst sich mit der **Marktorientierung und Marktentwicklung von Unternehmen und Unternehmern**. Dahinter verbirgt sich die **Ausrichtung und das Verhalten** eines Unternehmens **gegenüber seinen heutigen und zukünftigen Kunden und Wettbewerbern sowie weiteren wichtigen Stakeholdergruppen** (z.B. Vertriebskanälen, Regulatoren, Multiplikatoren und Mitarbeitern).
- Die **Ergebnisse dieser Studie** werden uns ermöglichen, Aussagen darüber zu treffen, **in welchem Umfeld** Unternehmen mit einer **pro-aktiveren bzw. reaktiveren Orientierung** gegenüber ihren wichtigsten Stakeholdern **erfolgreicher** sind.
- Wir sichern Ihnen ausdrücklich eine **strikt vertrauliche Behandlung** sowie **anonymisierte Auswertung** Ihrer Angaben zu. Rückschlüsse auf einzelne Unternehmen, Personen oder Vorhaben können nicht gezogen werden.
- **Aus methodischen Gründen** enthält der Fragebogen **teilweise ähnliche Fragen**. Wir bitten Sie hierfür um Ihr Verständnis.
- Bitte beantworten Sie alle Fragen. Eine **ungefähre Angabe** ist für uns **wertvoller als ein unvollständiger Fragebogen**.
- Unsere Vortester haben bestätigt, dass das Ausfüllen dieses Fragebogens **ca. 20 Minuten** beansprucht.
- Für Rückfragen steht Ihnen **Dipl.-Kfm. Jesko-Philipp Neuenburg** unter **neuenburg@win.rwth-aachen.de** sowie **Tel. +49-163-7123-595** gerne zur Verfügung

Vielen Dank für Ihre Unterstützung!

Teil 1: Marktorientierung

Kunden-Orientierung	Trifft gar nicht zu						Trifft voll zu
Wir führen regelmäßig neue Produkte/ Dienstleistungen ein, die unsere Kunden dazu bringen sollen, ihre Präferenzen zu ändern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir warten nicht immer erst auf Kunden-Feedback, um Wege zu finden, wie wir unseren Kundenservice verbessern können	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir versuchen Kunden dazu zu bringen, den Wert, den sie bestimmten Produkt-/ Serviceeigenschaften beimessen, zu überdenken	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir führen regelmäßig innovative Produkte/ Dienstleistungen ein, die gegenüber dem Wettbewerb einen überlegenen Nutzen bieten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir entwickeln oft Produkte/ Dienstleistungen, die eher latente als ausdrückliche Bedürfnisse adressieren (z.B. hatten Kunden vor Einführung des Mobilfunks ein latentes Bedürfnis, auch unterwegs zu telefonieren. Sie konnten dieses allerdings nicht ausdrücken, da es zu stark von bestehenden Vorstellungen über Telefonie abwich)	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir führen regelmäßig Kampagnen/ Programme zur Kundenaufklärung durch	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Wettbewerbs-Orientierung	Trifft gar nicht zu						Trifft voll zu
Unser Unternehmen übernimmt die Initiative, um Erschwernisse (z.B. beim Markteintritt, Zugang zu Vertriebskanälen, etc.) für unsere Wettbewerber zu schaffen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen führt regelmäßig Praktiken aus anderen Industrien ein, die auch die Arbeitsweise unserer Wettbewerber verändern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die Initiativen unseres Unternehmens lauten oft neue Runden von Wettbewerbsaktivitäten (z.B. Preisanpassungen, Marketing-Kampagnen, Neuprodukteinführungen) ein	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen versucht, die Anzahl der Wettbewerber im Markt zu verändern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen wirkt oft auf Wettbewerber ein, um unsere Produkte/ Dienstleistungen als Standards zu etablieren	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Vertriebskanal-/Wertschöpfungsketten-Orientierung	Trifft gar nicht zu						Trifft voll zu
Wir haben neue Vertriebskanäle für unseren Markt entwickelt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir versuchen unsere Vertriebspartner dazu zu bringen, dass sie andere Verantwortlichkeiten akzeptieren als sie bisher gehabt haben	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir haben ständig andere Industrien im Blick, um „best practices" im Bereich Vertrieb abzuleiten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen versucht pro-aktiv in signifikantem Umfang Kontrolle über seine Vertriebskanäle zu erlangen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir ermutigen regelmäßig unsere Zulieferer, sich neuen Herausforderungen (z.B. „Just-in-time" Lieferung, anderer Anteil an der Wertschöpfung, etc.) zu stellen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Regulatoren-Orientierung (z.B. gegenüber Regulierungsbehörden, Standardisierungsgremien, Parlament, Regierung, etc.)	*Trifft gar nicht zu*						*Trifft voll zu*
Unser Unternehmen versucht Regulatoren argumentativ zu überzeugen, damit diese für uns vorteilhafte Rahmenbedingungen entwickeln	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir versuchen häufig, Veränderungen in den inhaltlichen Positionen von Industriegruppierungen (z.B. Verbänden, Firmenallianzen) herbeizuführen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen hat regelmäßig Kontakt mit politischen Institutionen oder Regulierungsstellen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen partizipiert aktiv in Standardisierungsgremien oder politischen Ausschüssen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir wenden signifikante Resourcen für „Lobbying" auf	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Multiplikatoren-Orientierung	*Trifft gar nicht zu*						*Trifft voll zu*
Wir kommunizieren pro-aktiv mit Multiplikatoren (z.B. Medien, Investoren, Partnerunternehmen oder Bildungsinstitutionen), um Unterstützung und Akzeptanz für unser Unternehmen aufzubauen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir unterhalten dauerhaft Beziehungen zu Schlüsselmedien und versorgen diese mit Inhalten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir suchen häufig Kontakt zu Analysten und der Finanzgemeinde (z.B. Banken, Risikokapitalgeber, etc.)	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir interagieren systematisch mit Bildungsinstitutionen, um den gegenseitigen Wissenstransfer zu fördern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wenn es um das Schmieden von neuen Partnerschaften oder Koalitionen geht, sind wir üblicherweise unter den treibenden Kräften	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Mitarbeiter-Orientierung	*Trifft gar nicht zu*						*Trifft voll zu*
Wir ermutigen unsere Mitarbeiter, eher ein pro-aktives als ein reaktives Verhalten an den Tag zu legen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir drängen unsere Mitarbeiter regelmäßig dazu, innovative Ideen zu entwickeln, die unser Geschäft radikal verändern könnten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unsere Mitarbeiter dürfen einen Teil ihrer Arbeitszeit mit selbst gewählten Projekten verbringen, um eigene Ideen voranzutreiben	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir versuchen, unsere Mitarbeiter in die Lage zu versetzen, gegenüber unseren Kunden eine Führungsrolle zu übernehmen (z.B. diese von neuen Produkten od. Prozessen zu überzeugen, neue Arten der Zusammenarbeit zu gestalten, etc.)	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen belohnt die Anstrengungen von Mitarbeitern, die Risiken eingehen und neue Opportunitäten entwickeln	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Informationsaufnahme	*Trifft gar nicht zu*						*Trifft voll zu*
Wir führen in unserem Unternehmen sehr viel Marktforschung "in-house" (eigenständig) durch	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir bemerken Veränderungen in den Produktpräferenzen unserer Kunden relativ spät	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir sprechen oft mit denjenigen, die die Käufe unserer Endverbraucher beeinflussen können (z. B. Einzel- oder Großhändler) oder befragen diese	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir sammeln Brancheninformationen durch informelle Mittel (z. B. Geschäftsessen mit Freunden aus der Branche, Gespräche mit Handelspartnern)	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir sammeln Informationen darüber, worin unser Wettbewerbsvorteil liegt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir treffen mindestens ein Mal im Jahr unsere Kunden, um herauszufinden, welche Produkte oder Dienstleistungen sie in Zukunft benötigen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Informationsverteilung	Trifft gar nicht zu						Trifft voll zu
Für das Sammeln von Markt- und Kundeninformationen fühlt sich in unserem Unternehmen niemand verantwortlich	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
In unserem Unternehmen sind regelmäßig Unterlagen (z. B. Berichte) im Umlauf, in denen Informationen über unsere Kunden bereitgestellt werden	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir haben in unserem Unternehmen einen Marketingplan entwickelt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir halten mindestens einmal im Quartal Besprechungen zwischen den Bereichen ab, um Markttrends und -entwicklungen zu erortern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wenn ein Bereich etwas Wichtiges über Konkurrenten herausfindet, wird er die anderen Bereiche sofort informieren	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Viele unserer informellen (Flur-) Gespräche im Unternehmen betreffen die Taktiken oder Strategien unserer Konkurrenten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die Aktivitäten der verschiedenen Bereiche in unserem Unternehmen sind gut koordiniert	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Reaktion auf Information	Trifft gar nicht zu						Trifft voll zu
In unserem Unternehmen haben Analyse und Verständnis unterschiedlicher Marktsegmente zu neuen Produktentwicklungen geführt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Selbst, wenn wir einen großartigen Marketingplan entwickelt hätten, wären wir wahrscheinlich nicht in der Lage, ihn zeitnah durchzuführen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir versuchen zügig auszutesten, in welche Märkte und zu welchen Kunden unser Produkt am besten passt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wenn wir feststellen, dass Kunden mit der Qualität unseres Angebots unzufrieden sind, nehmen wir unverzüglich korrektive Maßnahmen vor	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unsere Geschäftspläne werden eher durch neue Technologien als durch Marktforschung gesteuert	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir benötigen in der Regel zu lange für die Entscheidung, wie wir auf Preisänderungen unserer Konkurrenten reagieren sollen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die Grundsätze der Marktsegmentierung haben zu neuen Produktentwicklungen in unserem Unternehmen geführt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir reagieren schnell auf bedeutende Änderungen bei den Preisstrukturen unserer Konkurrenten	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Generelle Ausrichtung	Trifft gar nicht zu						Trifft voll zu
Unser Unternehmen orientiert sich vornehmlich reaktiv an den im Markt vorhandenen Bedürfnissen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unser Unternehmen versucht pro-aktiv, den Markt und seine wesentlichen Stakeholder (z.B. Kunden, Wettbewerber, Vertriebskanäle, Multiplikatoren) zu beeinflussen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Teil 2: Unternehmensentwicklung und Umfeldfaktoren

Wir sind zufrieden mit...	Trifft gar nicht zu						Trifft voll zu
...der Entwicklung unseres Unternehmens im Vergleich zu anderen Unternehmen der Branche	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
...unserem Wachstum im Vergleich zum wichtigsten Wettbewerber	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
...unserem prognostizierten Betriebsergebnis für die nächsten Jahre	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
...unserem Produkterfolg relativ zum Wettbewerb	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
...der Anzahl der gewonnenen Neukunden im Vergleich zu unserem wichtigsten Wettbewerber	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
...dem Ausmaß der Bindung der Kunden an unser Unternehmen im Vergleich zur Branche	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Technologisches Umfeld	Trifft gar nicht zu						Trifft voll zu
Die Technologie in unserer Branche ändert sich schnell	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die technologische Veränderung eröffnet unserer Industrie große Chancen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Eine große Zahl neuer Produktideen in unserer Branche wurde durch technologische Fortschritte möglich gemacht	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Technologische Entwicklungen in unserer Branche sind zu vernachlässigen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Marktumfeld	Trifft gar nicht zu						Trifft voll zu
In unserer Branche ändern sich die Produktpräferenzen unserer Kunden spürbar	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unsere Kunden sehen sich ständig nach neuen Produkten und Dienstleistungen um	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir stellen fest, dass Kunden, die sich früher nicht für unsere Produkte und Dienstleistungen interessiert haben. nun bei uns kaufen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Neue Kunden haben tendenziell andere produktbezogene Präferenzen als unsere existierenden Kunden	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Viele unserer früheren Kunden werden auch heute noch von uns bedient	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Wettbewerbsumfeld	Trifft gar nicht zu						Trifft voll zu
Der Wettbewerb in unserer Branche ist intensiv	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Alles, was ein Wettbewerber in unserer Branche anbieten kann, können die anderen leicht imitieren	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Preiswettbewerb ist ein Kennzeichen unserer Branche	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Wir hören fast jeden Tag von einer neuen Entwicklung im Wettbewerb	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unsere Wettbewerber sind relativ schwach	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Regulatorisches Umfeld	Trifft gar nicht zu						Trifft voll zu
Die Regulierungsdichte (Anzahl der Vorschriften, Ausmaß der Beeinträchtigung durch diese, etc.) in unserer Branche ist hoch	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die bestehende Arbeitsmarktregulierung (Arbeitszeiten, Kündigungsschutz, Mindestlöhne, etc.) ist sehr ausgeprägt	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die bestehende Regulierung in unserer Branche erleichtert neue Unternehmensgründungen	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die bestehende Regulierung in unserer Branche fördert den Wettbewerb	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Unternehmen der öffentlichen Hand zählen zu unseren Wettbewerbern	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7
Die bestehende Regulierung fördert den internationalen Handel	□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7

Teil 3: Informationen zum Unternehmen und zur Industrie

Ein **Unternehmen** durchläuft während seiner Entwicklung verschiedene Phasen. Bitte wählen Sie aus den folgenden Phasen diejenige aus, die tendenziell am ehesten auf Ihr Unternehmen zutrifft. **Bitte wählen Sie nur eine Phase aus.**

- ☐ **Konzeptionsphase:**
  Der Schwerpunkt der Aktivitäten in unserem Unternehmen liegt auf Produktentwicklung und Produktdesign sowie der Marktentwicklung.
- ☐ **Markteintrittsphase:**
  Unser Unternehmen hat ein/e erfolgreiche/s Produkt/Dienstleistung, für welche/s am Markt eine Nachfrage besteht. Wir können bereits Aufträge und einigen Umsatz vorweisen. Wir sind in der Lage, unser Angebot herzustellen und zu verkaufen, aber unser Unternehmen muss noch fest am Markt etabliert werden.
- ☐ **Wachstumsphase:**
  Unser Unternehmen ist durch hohe Wachstumsraten bezogen auf den Umsatz geprägt. Das Hauptaugenmerk liegt in unserem Unternehmen auf der Frage, wie unser/e Produkt/Dienstleistung in größerer Menge erstellt, verkauft und vertrieben werden kann.
- ☐ **Konsolidierungsphase:**
  Wir wachsen weiterhin, aber unsere Wachstumsraten nähern sich langsam dem Marktniveau an. Wir beschäftigen uns insbesondere mit der Frage, wie wir unser Geschäft profitabel gestalten und ausbauen können.
- ☐ **Reifephase:**
  Der Schwerpunkt unserer Aktivitäten liegt auf der Diversifizierung unseres Geschäfts. Wir entwickeln weitere Produkt- oder Dienstleistungsgenerationen oder völlig neue Produkte/Dienstleistungen und beschäftigen uns mit der Penetration neuer geographischer Märkte.

Eine **Industrie** durchläuft während ihrer Entwicklung verschiedene Phasen. Bitte wählen Sie aus den folgenden Phasen diejenige aus, die tendenziell am ehesten auf Ihre Industrie zutrifft. **Bitte wählen Sie nur eine Phase aus.**

- ☐ **Entstehungsphase:**
  Unsere Industrie ist sehr neu und verfügt noch nicht über gut ausgebildete Strukturen und Wettbewerber. Den Kunden muss die Legitimität von Unternehmen in unserer Industrie erst noch erläutert werden. Es existieren bisher nur wenige Spieler in unserer Industrie. Regulierung für unsere Industrie ist noch nicht entwickelt und Standards sind noch nicht definiert. Die technologische Entwicklung verläuft sehr dynamisch und diskontinuierlich.
- ☐ **Wachstumsphase:**
  Unsere Industrie wächst sehr dynamisch. Es werden zunehmend neue Kunden für unsere Industrie gewonnen. Eine Vielzahl neuer Wettbewerber treten in den Markt ein. Die Technologie wechselt immer noch sehr schnell. Erste Regulierungen und Standards haben sich herausgebildet.
- ☐ **Konsolidierungsphase:**
  Unsere Industrie wächst weiterhin, aber die Wachstumsraten nähern sich langsam dem Marktdurchschnitt an. Klare Kundenpräferenzen haben sich inzwischen herausgebildet und verändern sich nur noch langsam. Unter den Wettbewerbern kommt es zur Konsolidierung. Es gibt fest etablierte Standards und dominante Produktdesigns. Eine umfangreiche Regulierung für unsere Industrie besteht.
- ☐ **Reifephase:**
  Unsere Industrie wächst nicht mehr oder schrumpft. Kundenpräferenzen und Technologie sind weitgehend statisch und verändern sich nur noch sehr langsam. Es herrscht ein sehr harter Verdrängungswettbewerb. Eine umfangreiche Regulierung für die Industrie besteht.

Der **Markteintritt** eines Unternehmens kann zu verschiedenen Zeitpunkten während der Entwicklung eines dominanten Designs (*hierunter versteht man den grundsätzlichen Aufbau eines Produkts oder Prozesses, der den akzeptierten Standard im Markt darstellt - das dominante Design besitzt die wesentlichen Eigenschaften, gegen die alle anderen/ folgenden Designs verglichen werden*) erfolgen. Bitte wählen Sie aus den folgenden Optionen diejenige aus, die tendenziell am ehesten auf den Markteintritt Ihres Unternehmens zutrifft. **Bitte wählen Sie nur eine Option aus.**

□ **Pionier:**
Unser Unternehmen war das erste in einer neuen Industrie. Wir haben sozusagen die neue Industrie erst ins Leben gerufen.

□ **Früher Folger (vor Ausbildung eines dominanten Designs):**
Unser Unternehmen ist nach dem Pionier in den Markt eingetreten. Als wir in den Markt eingetreten sind, hatte sich noch kein dominantes Produkt- oder Technologiedesign für die Produkte in unserer Industrie herausgebildet. Mehrere, verschiedene Designs konkurrierten darum, den Standard zu setzen

□ **Später Folger (nach Ausbildung eines dominanten Designs):**
Unser Unternehmen ist recht spät in den Markt eingetreten, in dem es zu der Zeit schon eine signifikante Anzahl an Wettbewerbern gab. Als wir in den Markt eingetreten sind, hatte sich bereits ein dominantes Produkt- oder Technologiedesign für die Produkte in unserer Industrie herausgebildet. Ein de-facto Standard existierte.

Innovationsgrad (bezogen auf Hauptprodukt/ -dienstleitung des Unternehmens)	*Trifft gar nicht zu*						*Trifft voll zu*
Unsere Innovation stellt eine geringe Verbesserung gegenüber bestehenden Technologien od. Prozessen dar	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Unsere Innovation ermöglicht eine sprunghafte Leistungssteigerung	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Existierende Technologien od. Prozesse werden durch unsere Innovation verdrängt	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Unsere Innovation bietet dem Kunden einzigartige Vorteile gegenüber Konkurrenzprodukten	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Unsere Innovation verlangt von den Kunden umfangreiche Einstellungs- und Verhaltensänderungen	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Für die Durchsetzung unserer Innovation am Markt musste eine neue Infrastruktur (wie z.B. Wasserstofftankstellen für den Wasserstoffbetrieb von Autos) geschaffen werden	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Für die Durchsetzung unserer Innovation am Markt mussten regulatorische Rahmenbedingungen (z.B. durch staatl. Stellen oder Verbände) erheblich angepasst/ geschaffen werden	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*
Wertschöpfungsstufen werden durch unsere Innovation überflüssig oder ändern sich stark	□ *1*	□ *2*	□ *3*	□ *4*	□ *5*	□ *6*	□ *7*

Bitte machen Sie folgende Angaben zu Ihrem Unternehmen

Ihr Unternehmen wurde gegründet im (MM.JJJJ):

Der Markteintritt Ihres Unternehmens erfolgte im (MM.JJJJ):

Anzahl Mitarbeiter (feste Mitarbeiter, Auszubildende)	□ *<4*	□ *<10*	□ *<20*	□ *<50*	□ *<100*	□ *<250*	□ *≥250*
Umsatz im letzten Geschäftsjahr (in Mio EUR)	□ *<0,25*	□ *<1*	□ *<5*	□ *<10*	□ *<25*	□ *<50*	□ *>50*

Bitte machen Sie folgende Angaben zu Ihrem Unternehmen

Ihr Unternehmen ist in folgender Branche tätig:	□ IT/ Software/ Internet □ Telekommunikation □ Biotechnologie/ Medizintechnik □ Nanotechnologie □ Elektroindustrie □ Maschinenbau □ Automobilindustrie □ Konsumgüter □ Chemie/ Pharma □ Transport/ Logistik □ Energie/ Rohstoffe □ Handel □ Bau/ Immobilien □ Financial Services (Banken, Versicherungen o.ä.) □ Professional Services (Beratung, Wirtschaftsprüfung o.ä.) □ Sonstige _____

Die Gründung Ihrer Gesellschaft erfolgte …	□ von den Gründern selbständig □ durch die Muttergesellschaft
Bei der Gründung Ihrer Gesellschaft handelte es sich um eine …	□ Neugründung □ Übernahme oder Umgründung
Ihre Position in Ihrem Unternehmen ist	□ Geschäftsführung □ Leitende Position □ Mitarbeiter

Angaben zum Unternehmenserfolg

Das Umsatzwachstum im Vergleich zum Vorjahr beträgt	□ <0%	□ <10%	□ <25%	□ <50%	□ <75%	□ <100%	□ ≥100%
Das Mitarbeiterwachstum im Vergleich zum Vorjahr beträgt	□ <0%	□ <10%	□ <25%	□ <50%	□ <75%	□ <100%	□ ≥100%
Das durchschnittliche Umsatzwachstum pro Jahr seit Markteintritt beträgt	□ <0%	□ <10%	□ <25%	□ <50%	□ <75%	□ <100%	□ ≥100%
Das durchschnittliche Mitarbeiterwachstum pro Jahr seit Markteintritt beträgt	□ <0%	□ <10%	□ <25%	□ <50%	□ <75%	□ <100%	□ ≥100%
Das Ergebnis vor Steuern im letzten Geschäftsjahr in % des Umsatzes beträgt	□ <0%	□ <5%	□ <10%	□ <15%	□ <20%	□ <30%	□ ≥30%
Das durchschnittliche Ergebnis vor Steuern in % des Umsatzes seit Markteintritt beträgt	□ <0%	□ <5%	□ <10%	□ <15%	□ <20%	□ <30%	□ ≥30%

VIELEN DANK FÜR IHRE TEILNAHME!

Bitte geben Sie Ihren Namen und Ihre E-mail Adresse an, falls Sie die Ergebnisse der Studie erhalten möchten

Name:
E-mail Adresse:

Waren Sie grundsätzlich bereit, an weiteren Untersuchungen dieser Art teilzunehmen?	□ Ja □ Nein

8.3 Statistical appendix

8.3.1 Results of structural model per moderator

Following are the results of the structural model for each of the eight moderators that were included in the empirical study. For each moderator a simple structural model including only market-driving behavior and a combined structural model including market-driving and market-driven behavior were calculated.

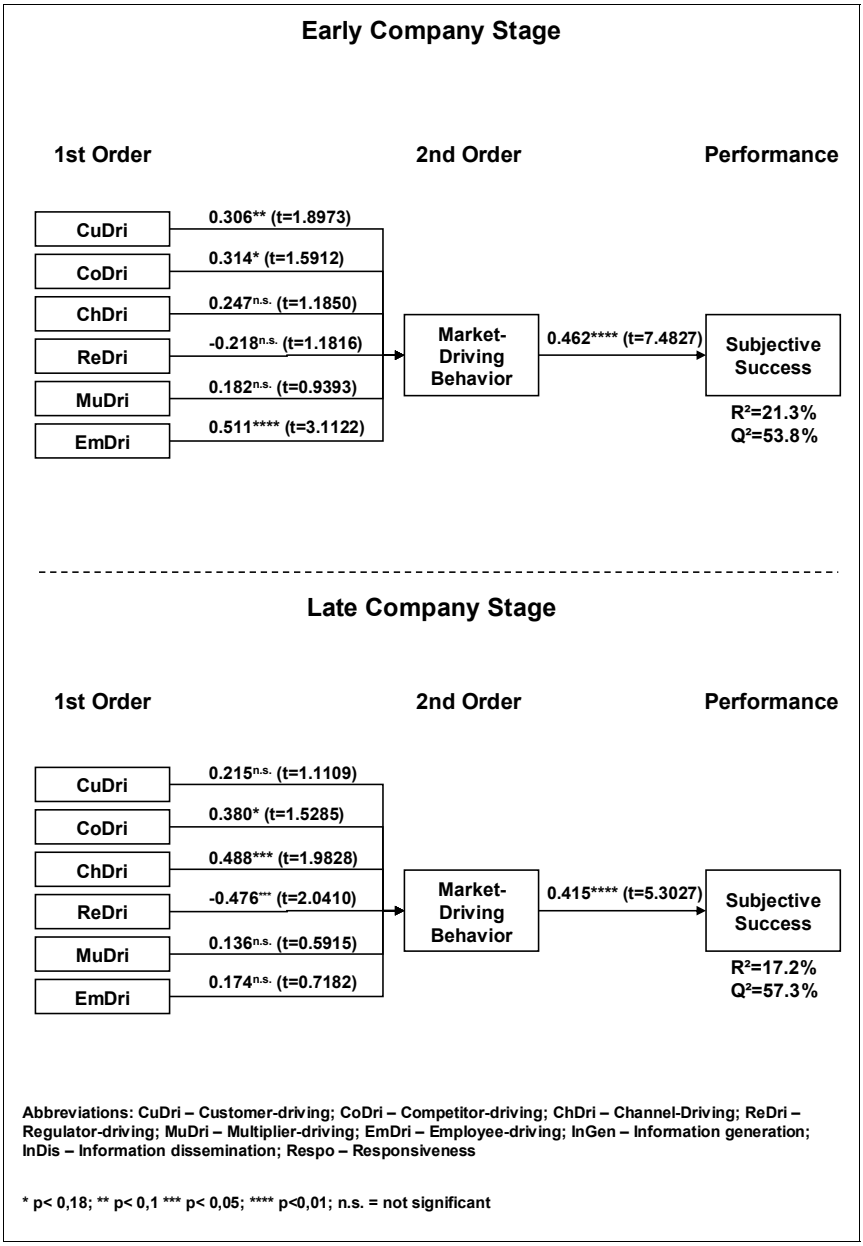

Figure 26: Simple structural model: Company development phase

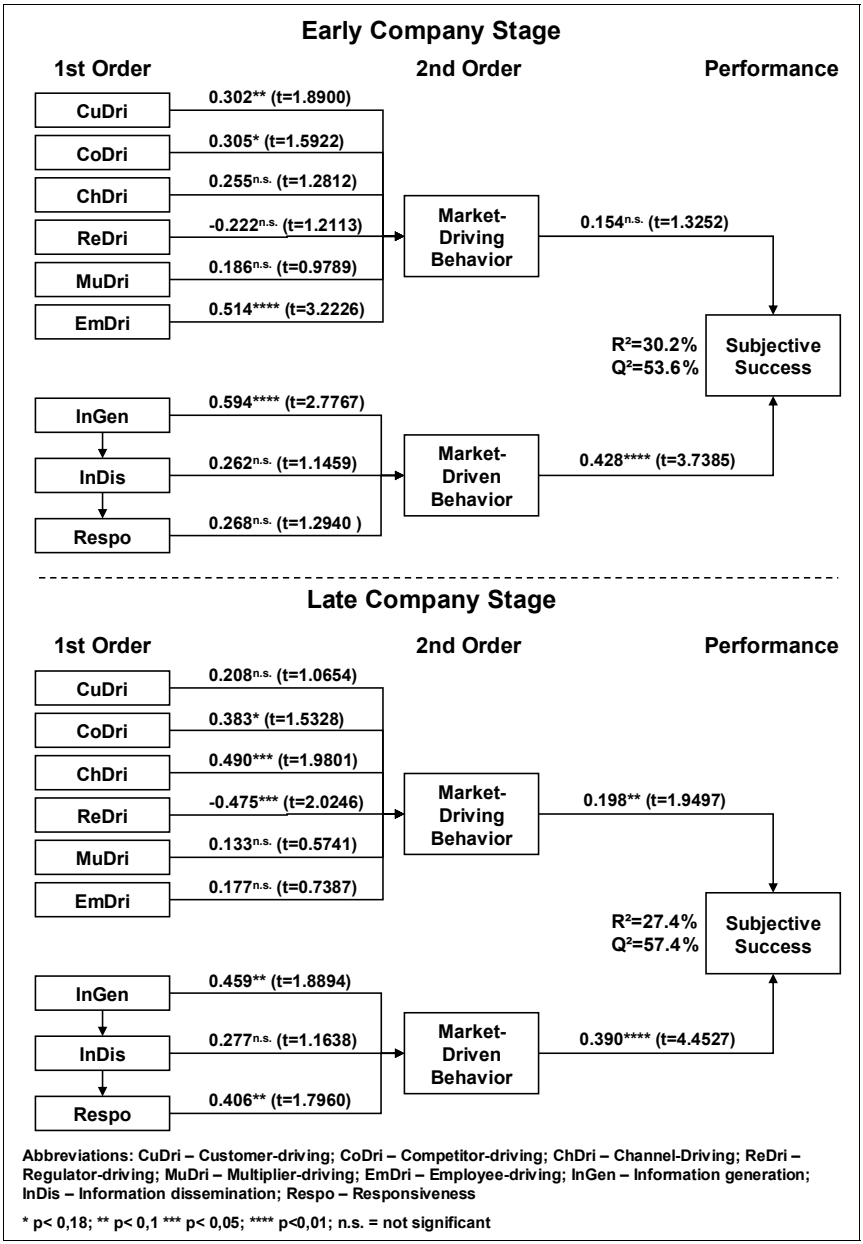

Figure 27: Combined structural model: Company development phase

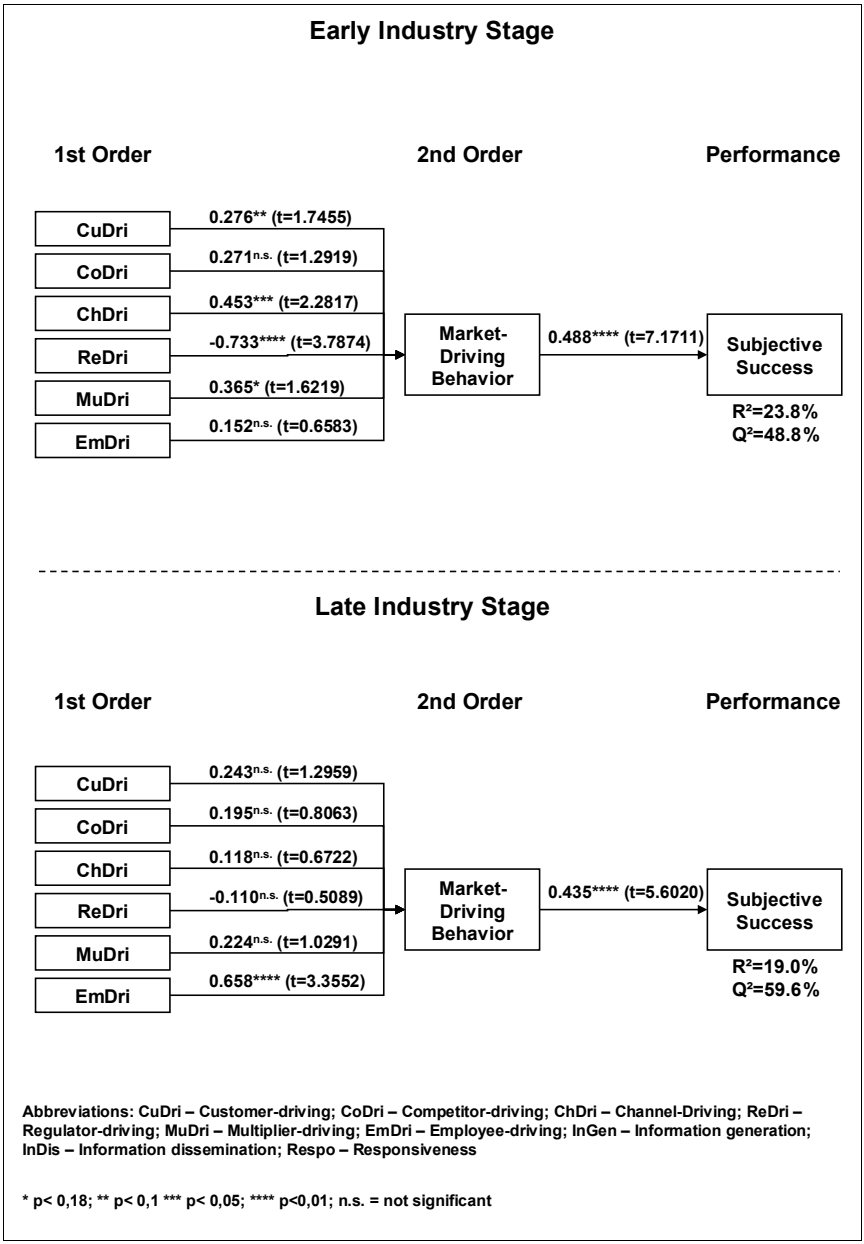

Figure 28: Simple structural model: Industry development stage

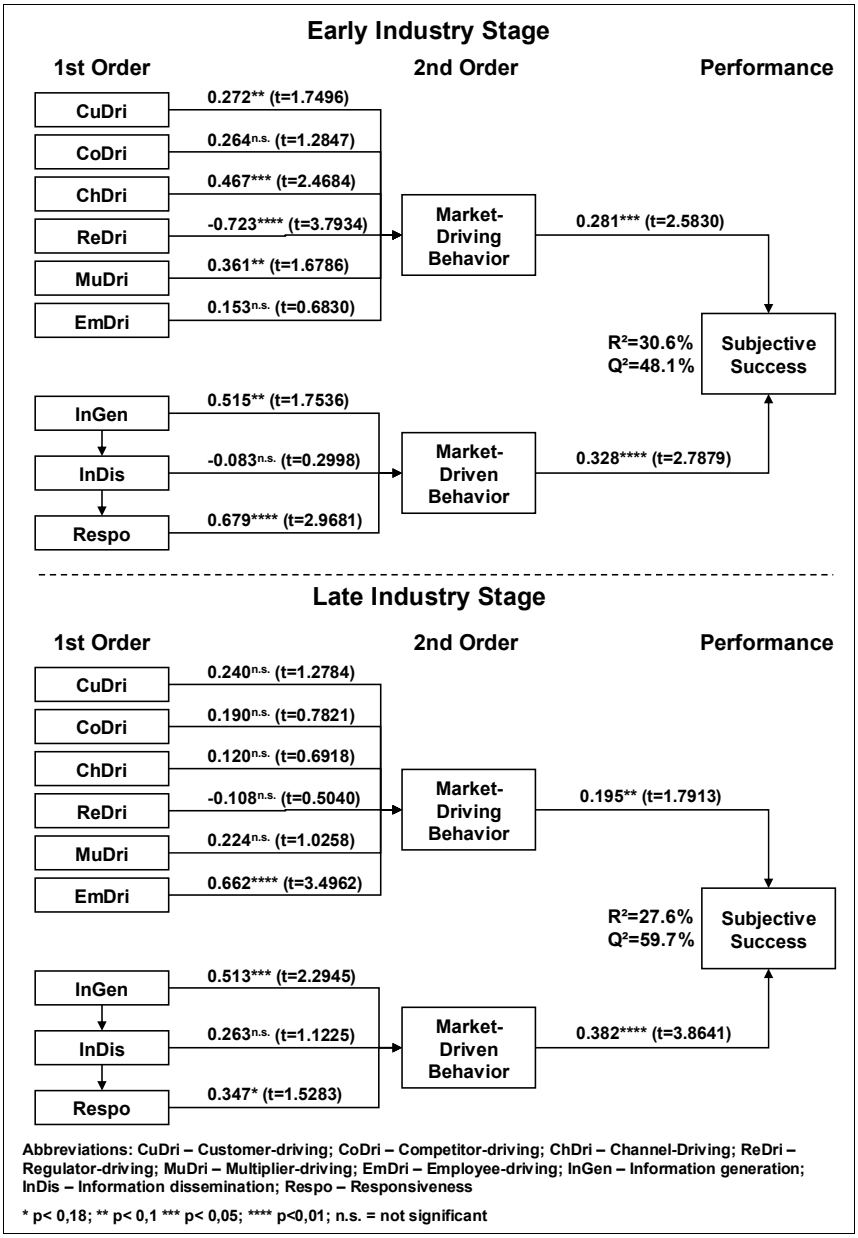

Figure 29: Combined structural model: Industry development stage

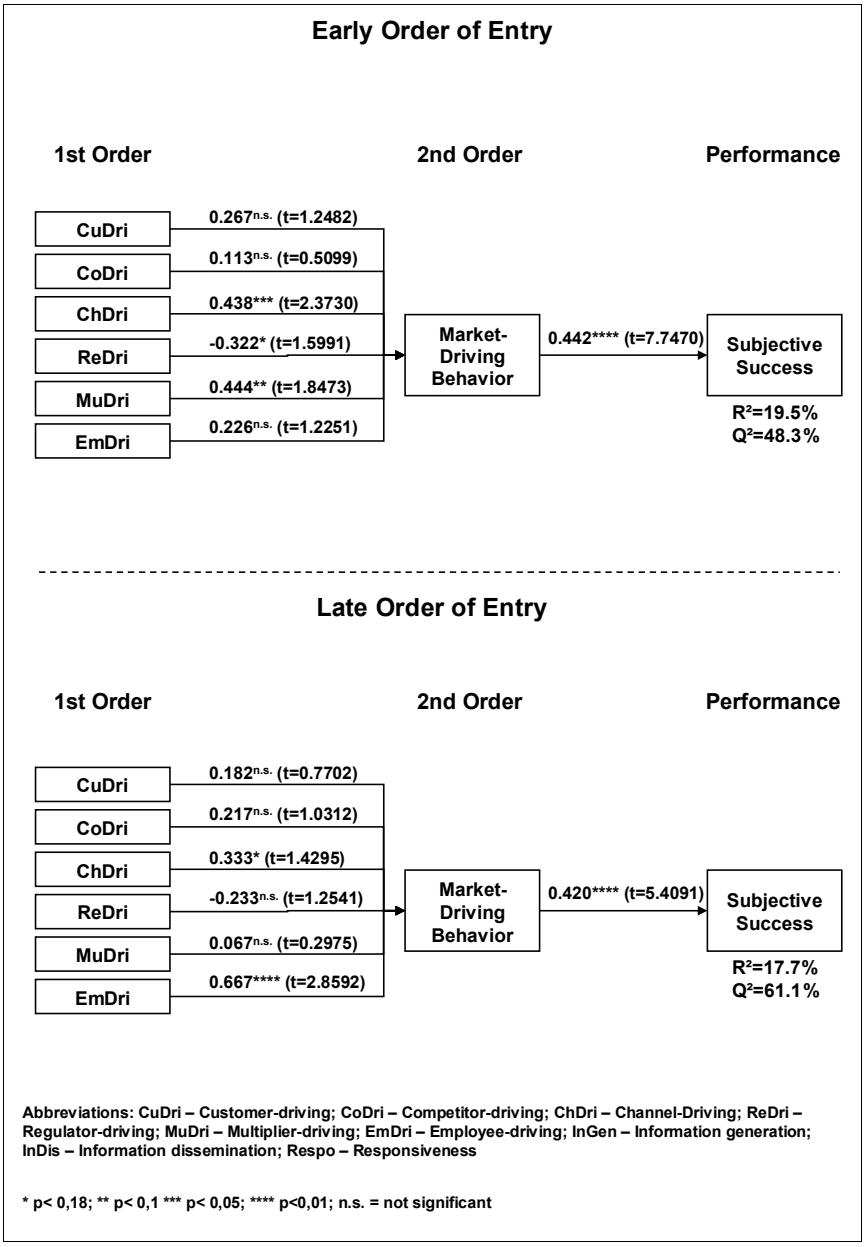

Figure 30: Simple structural model: Order of market entry

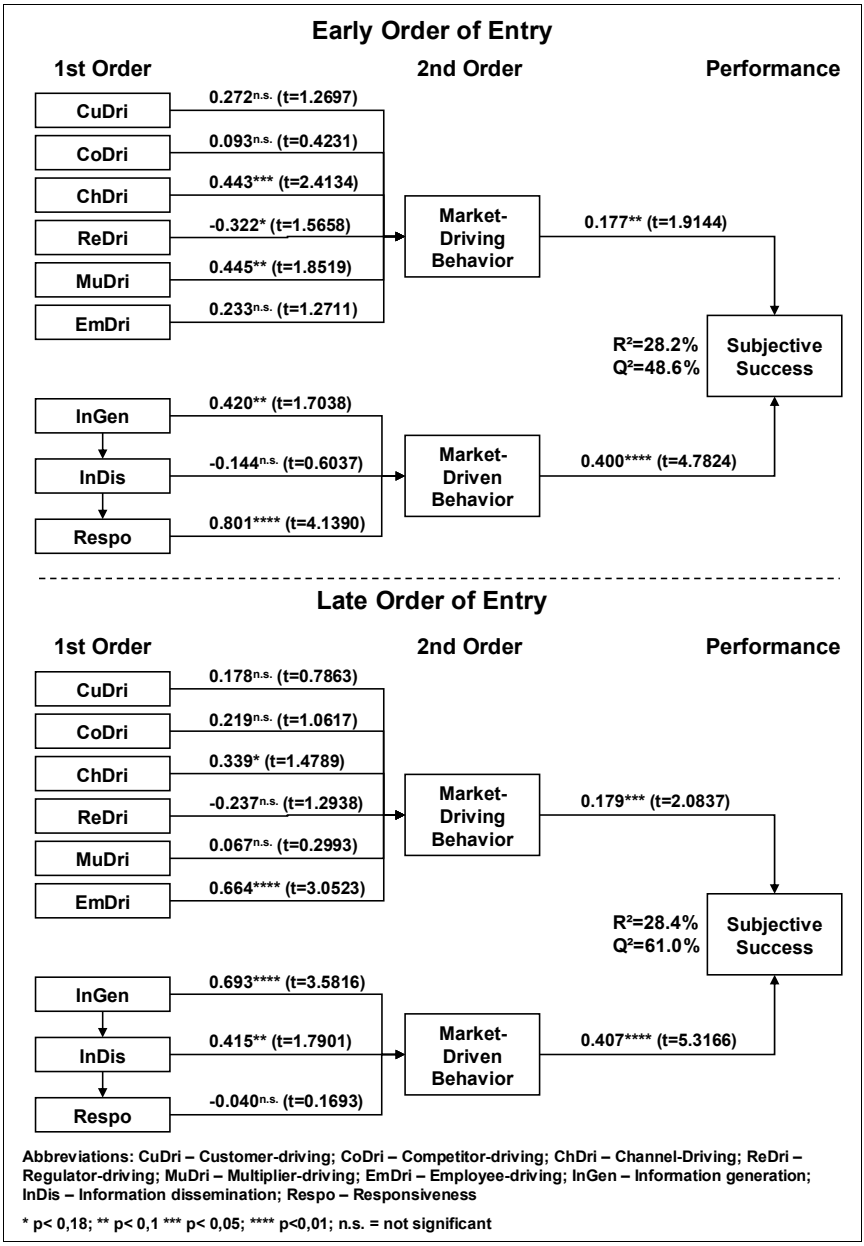

Figure 31: Combined structural model: Order of market entry

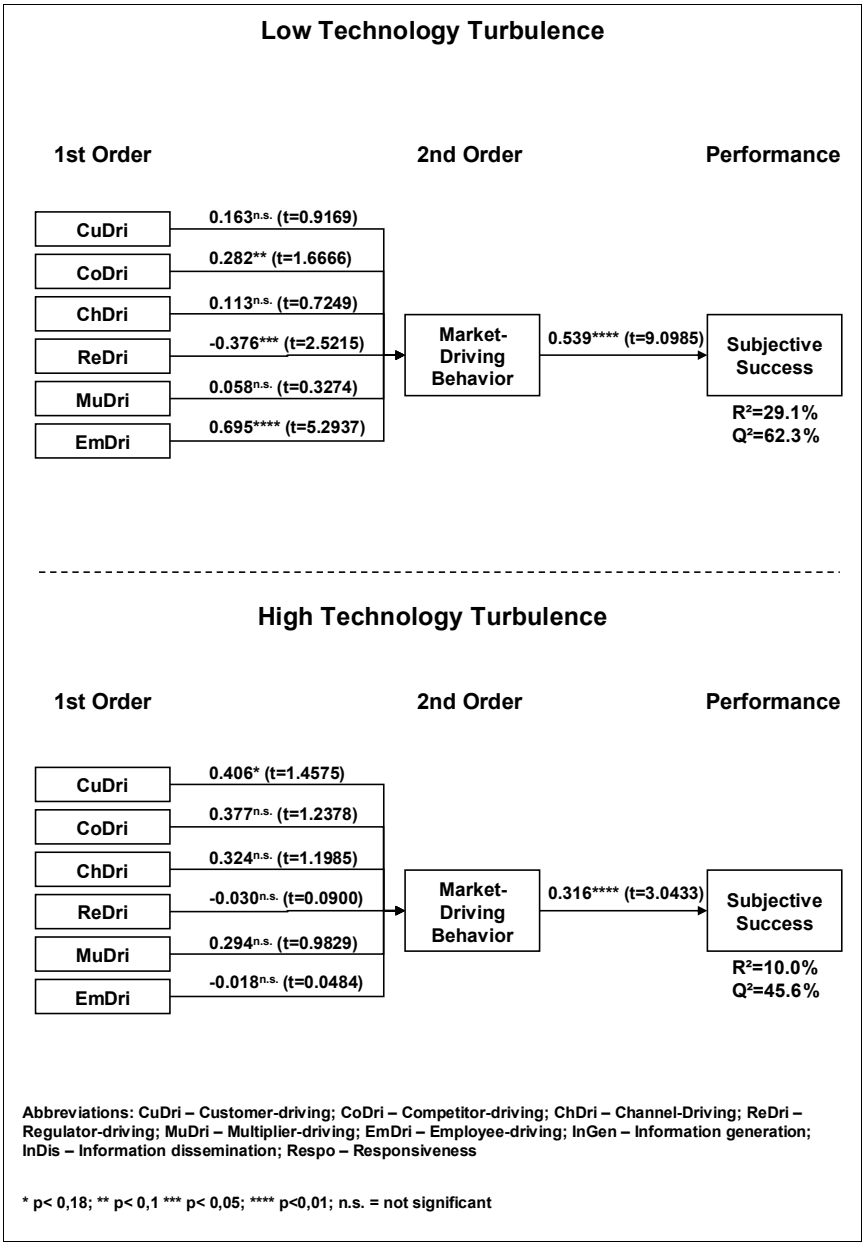

Figure 32: Simple structural model: Technology turbulence

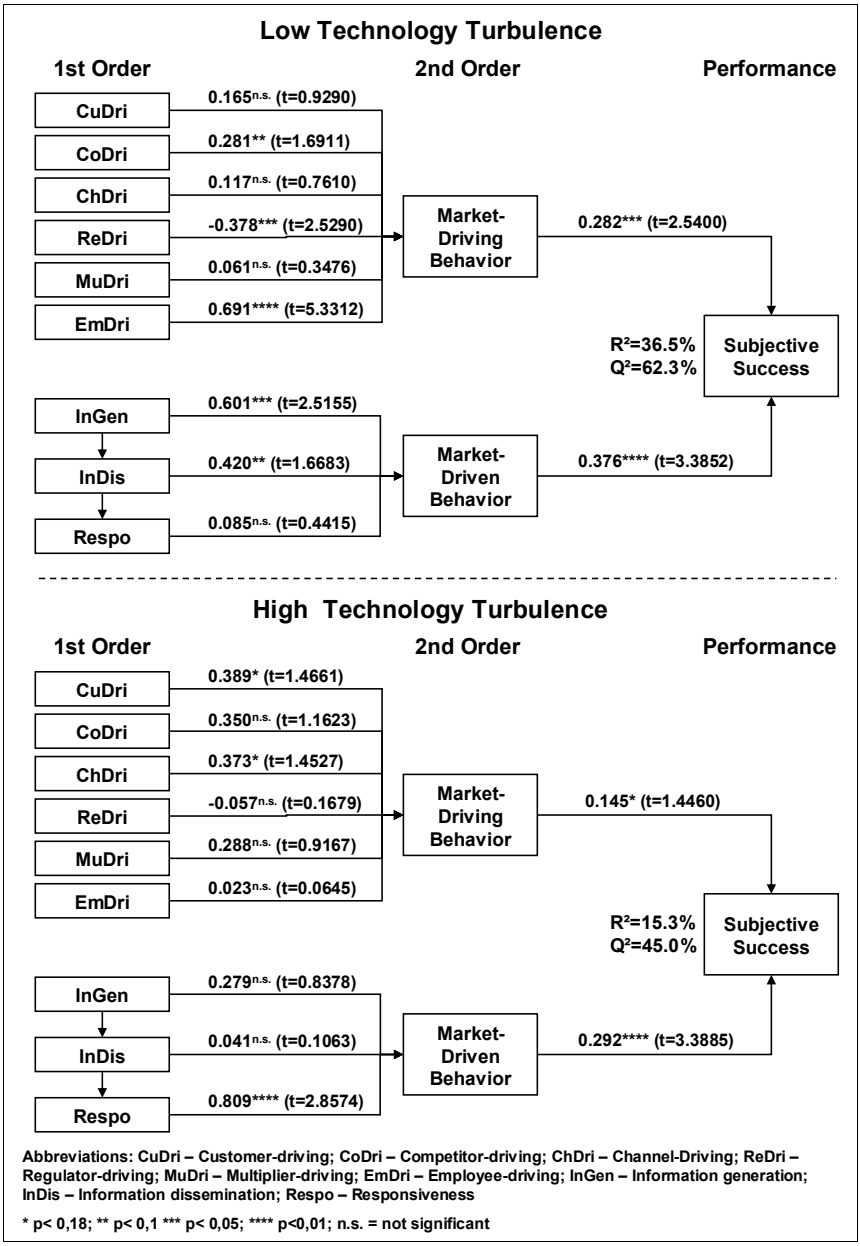

Figure 33: Combined structural model: Technology turbulence

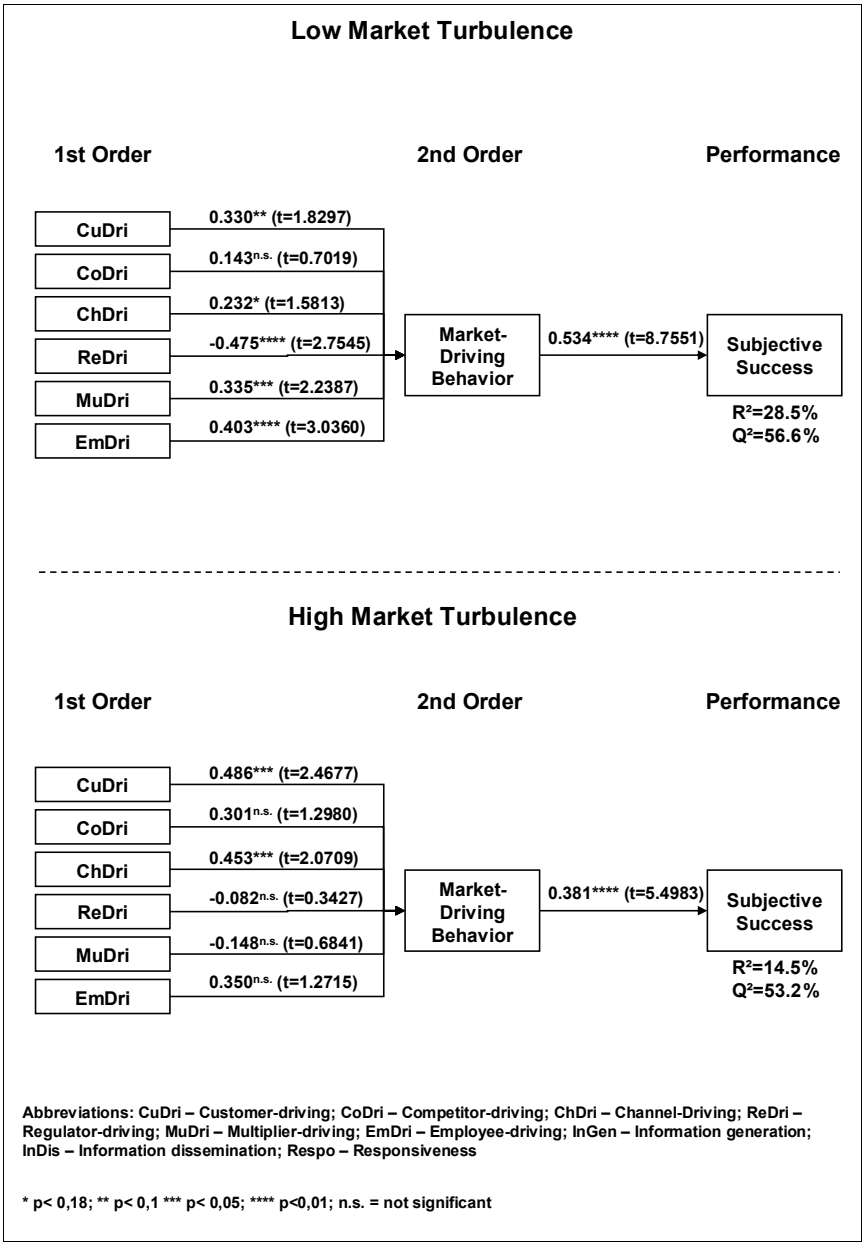

Figure 34: Simple structural model: Market turbulence

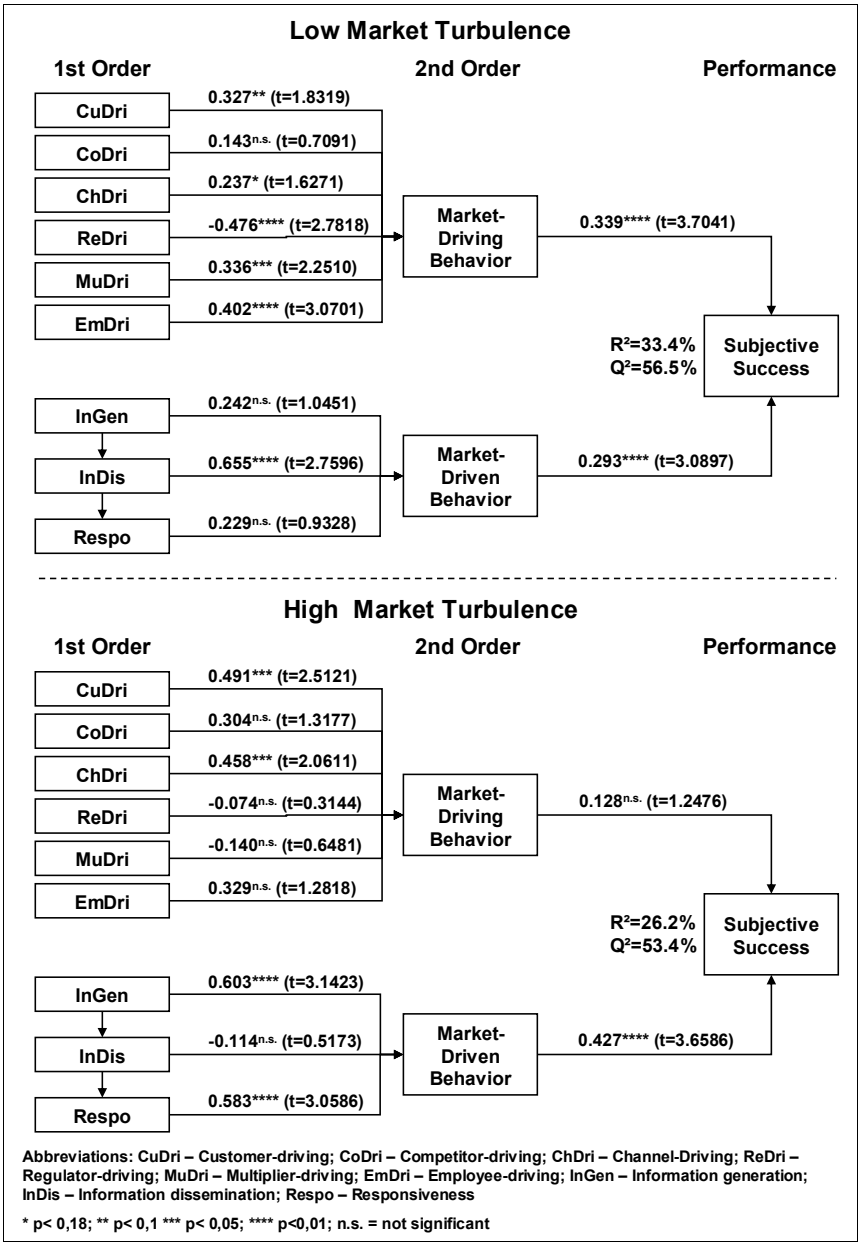

Figure 35: Combined structural model: Market turbulence

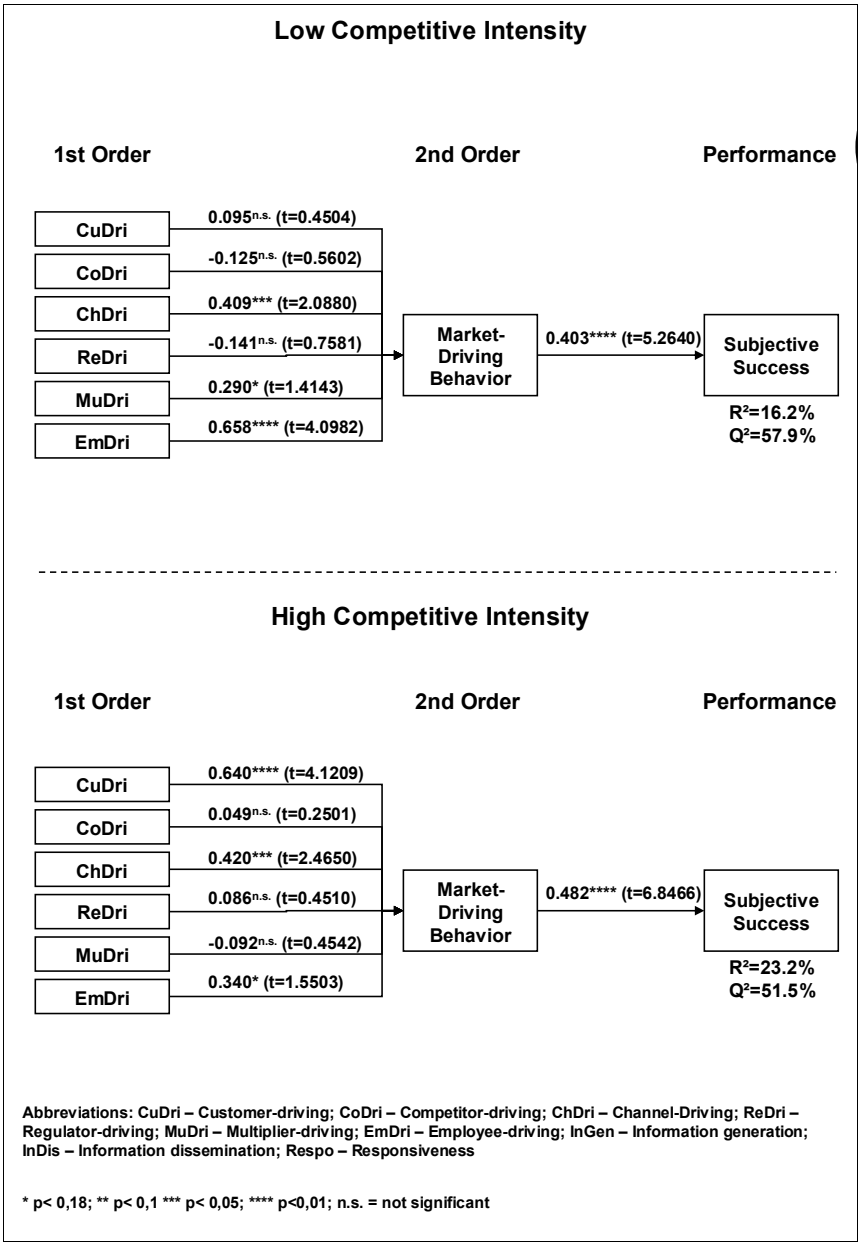

Figure 36: Simple structural model: Competitive intensity

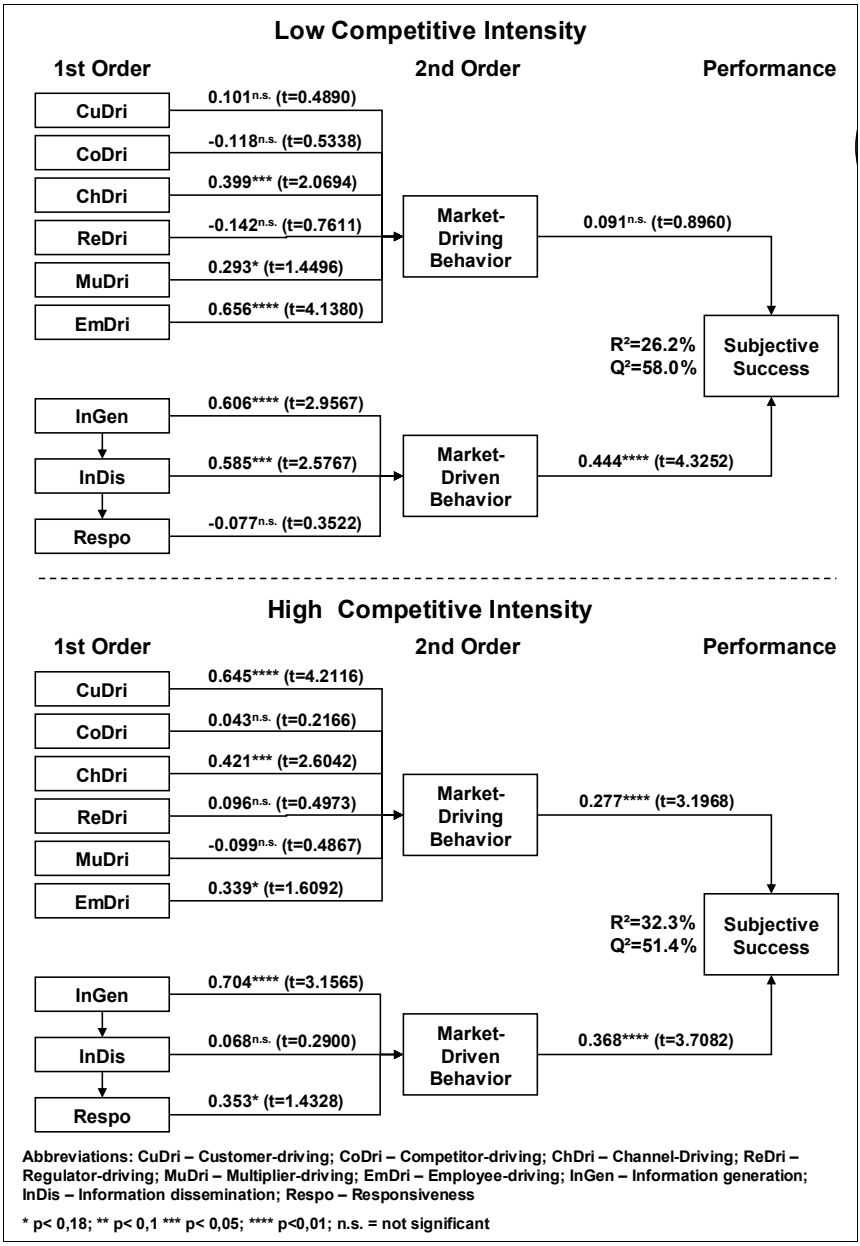

Figure 37: Combined structural model: Competitive intensity

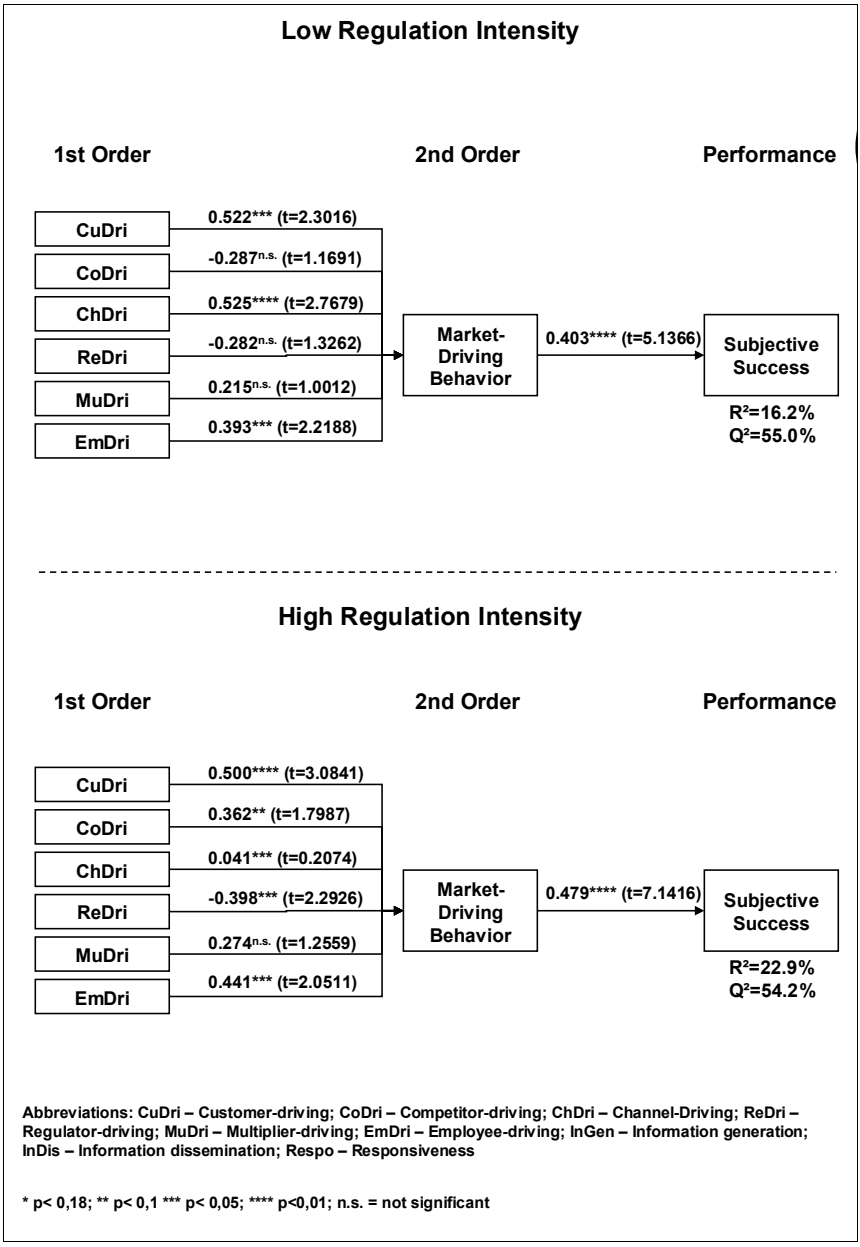

Figure 38: Simple structural model: Regulation intensity

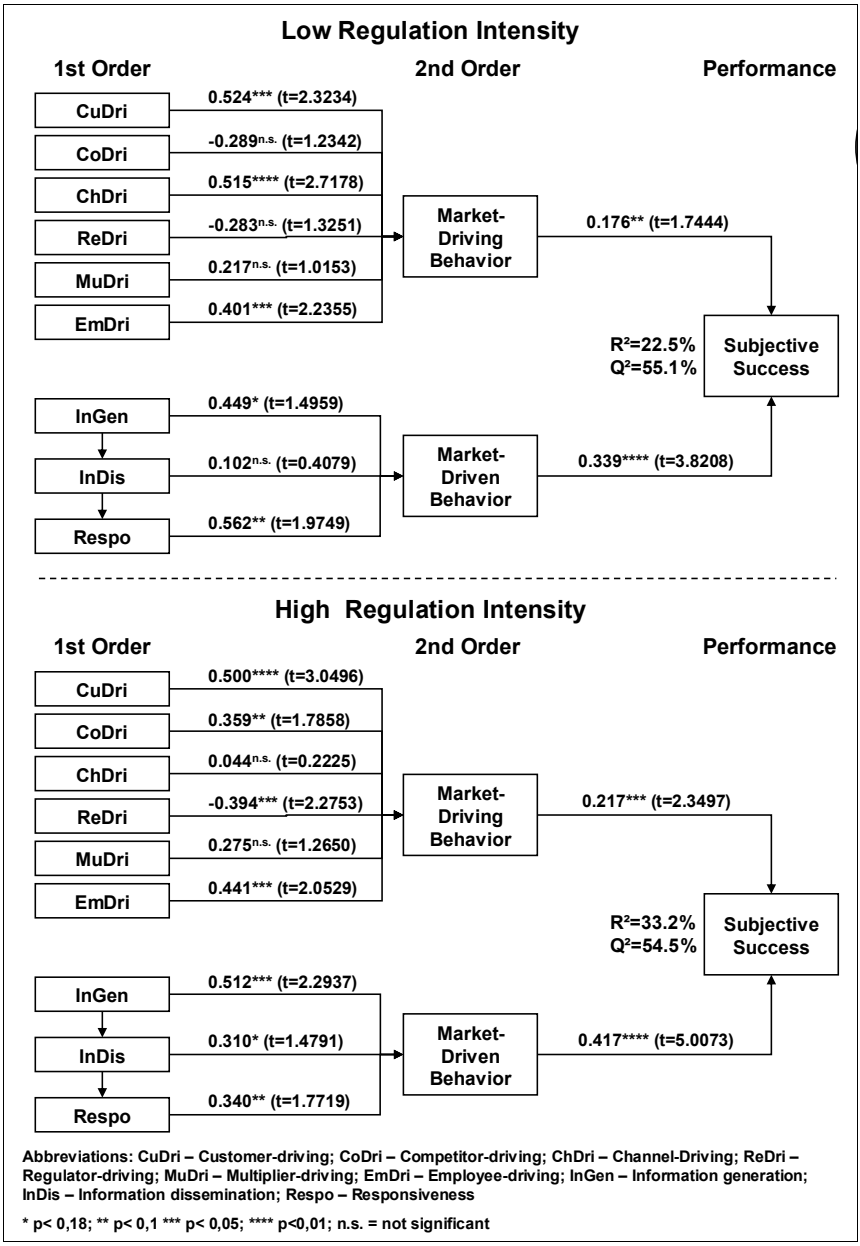

Figure 39: Combined structural model: Regulation intensity

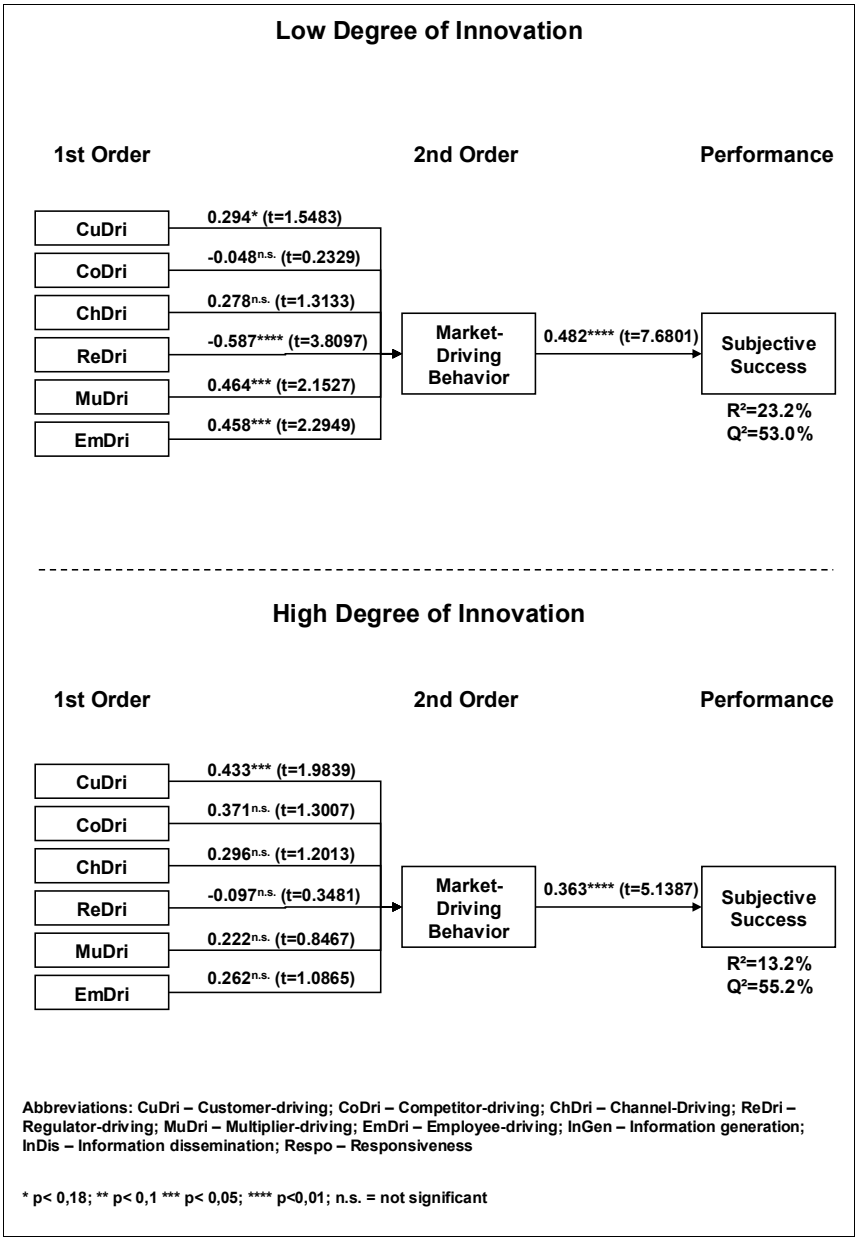

Figure 40: Simple structural model: Degree of Innovation

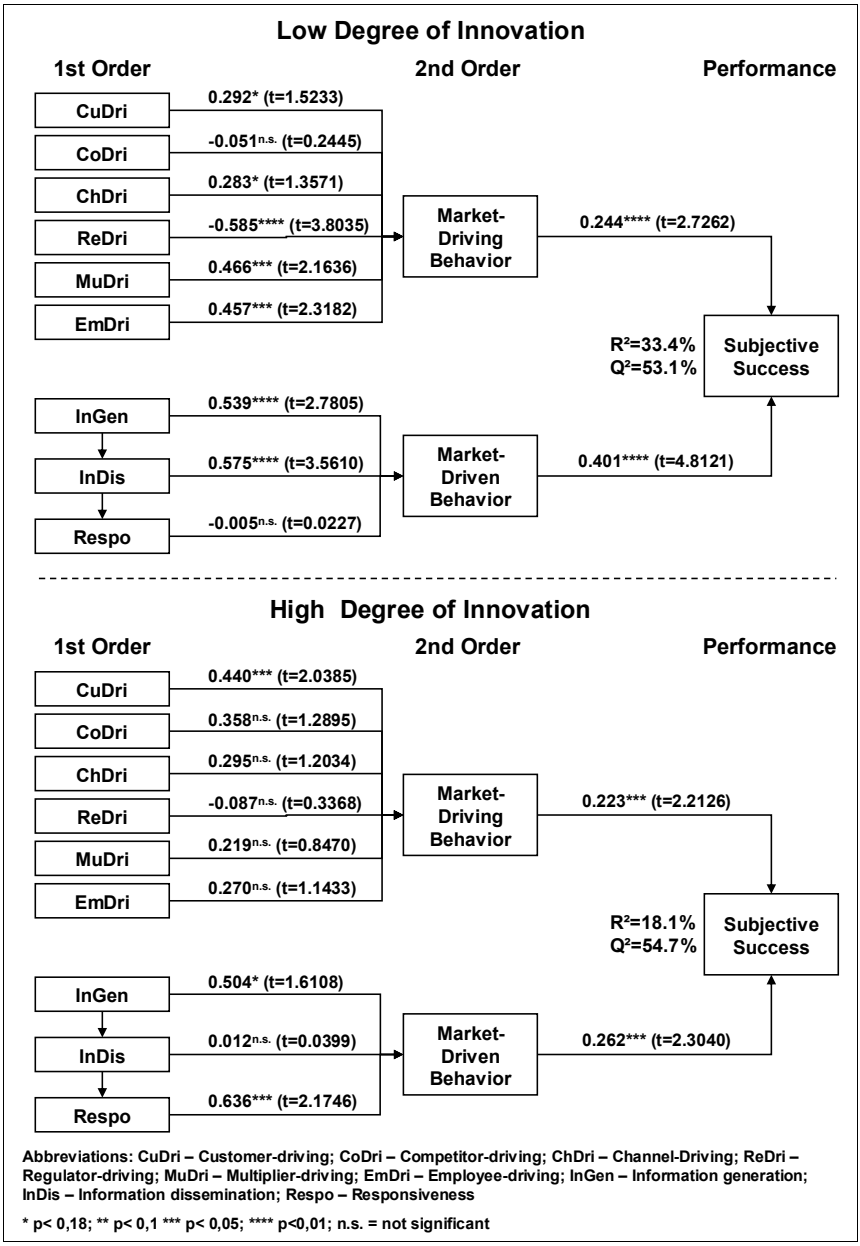

Figure 41: Combined structural model: Degree of Innovation

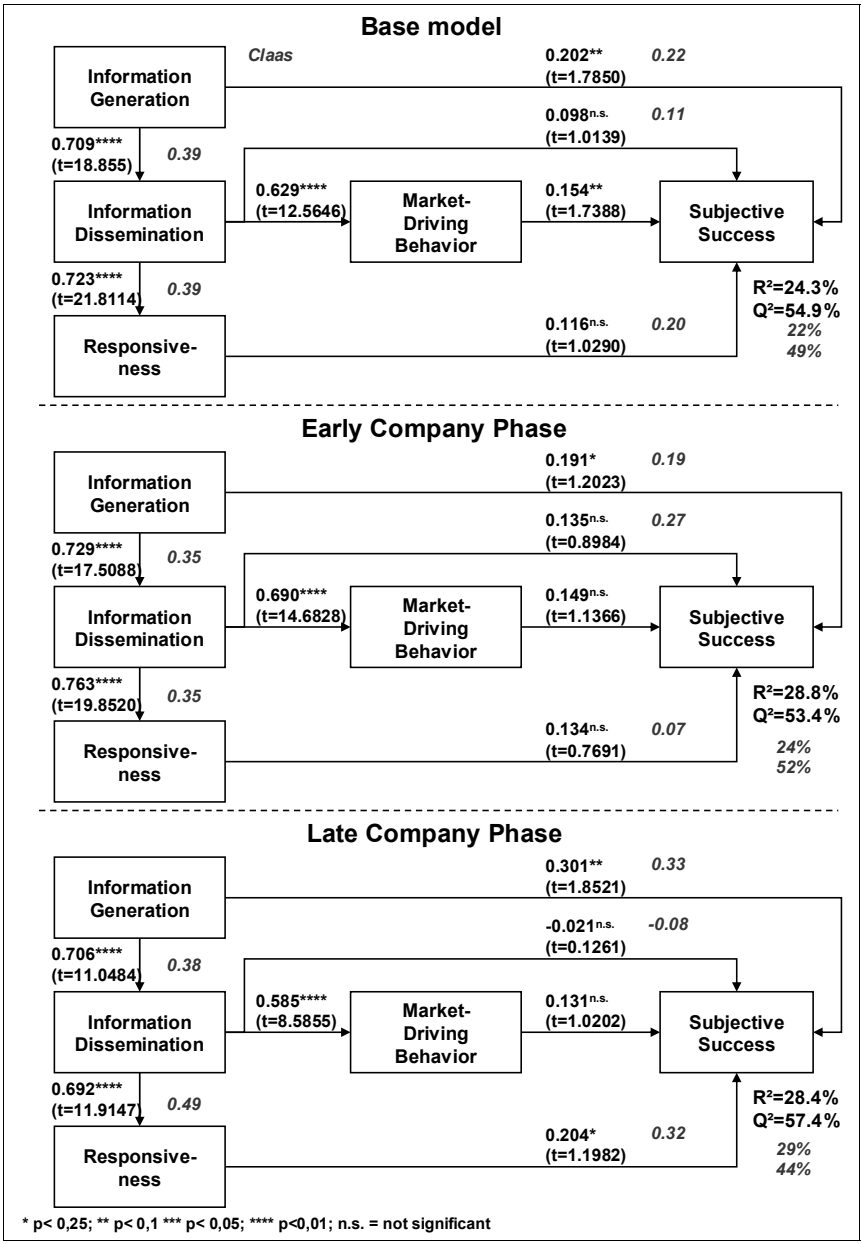

Figure 42: Comparison of results: Base model and company development phase

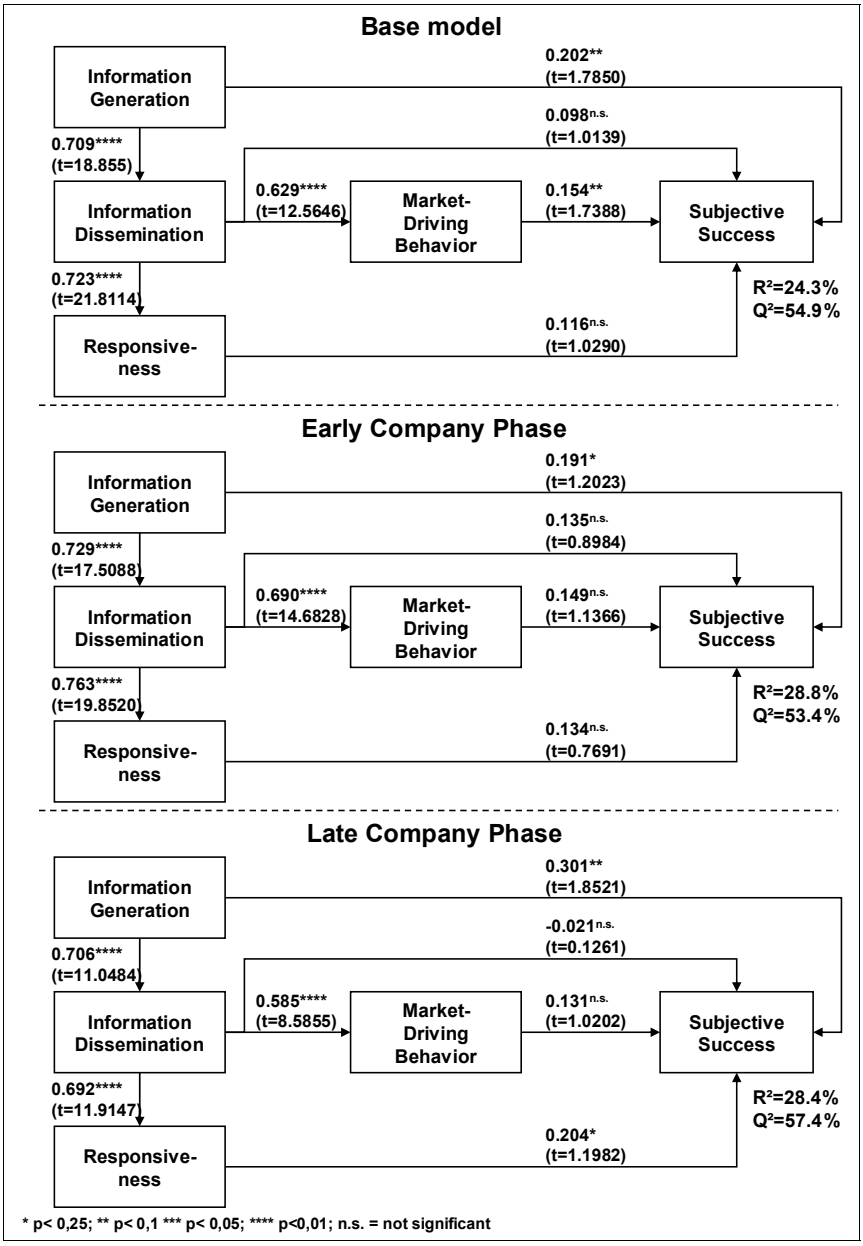

Figure 43: Extended structural model: Company development phase

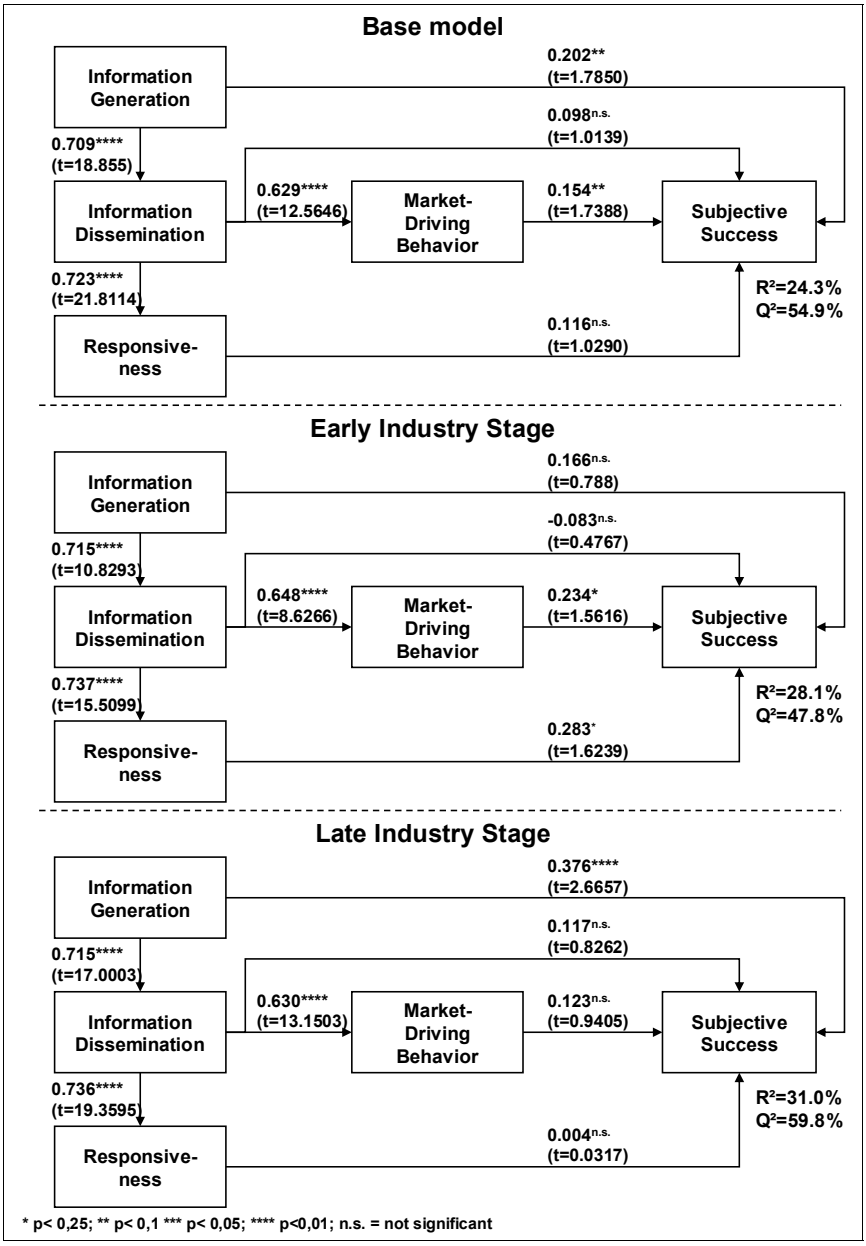

Figure 44: Extended structural model: Industry development stage

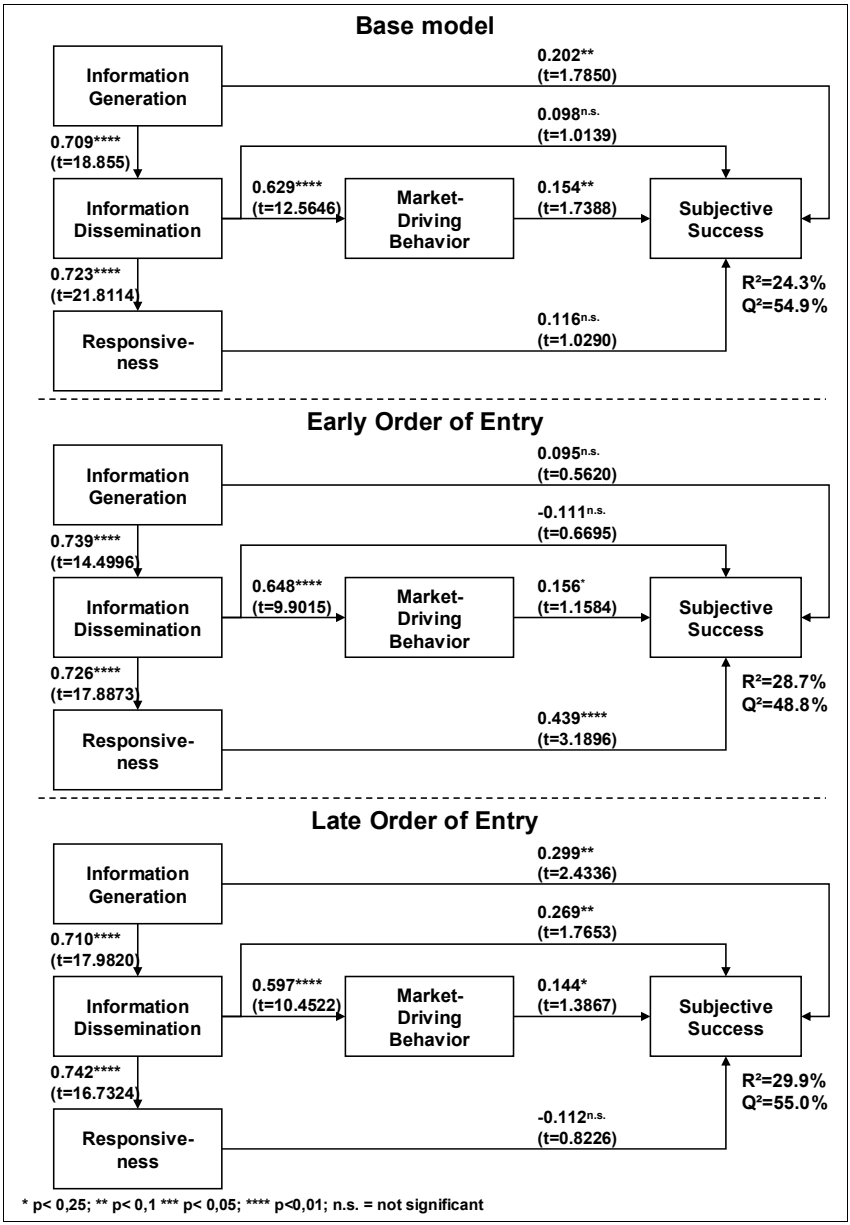

Figure 45: Extended structural model: Order of market entry

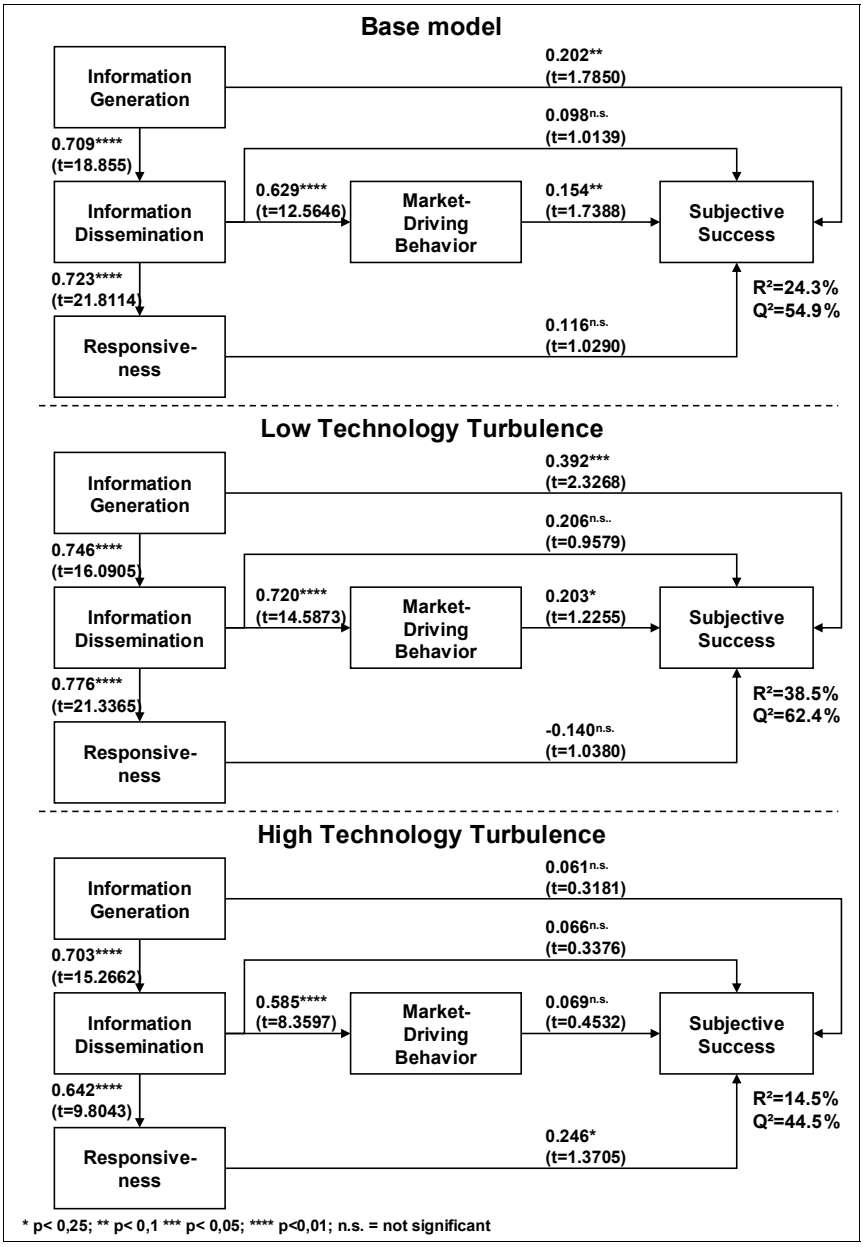

Figure 46: Extended structural model: Technology Turbulence

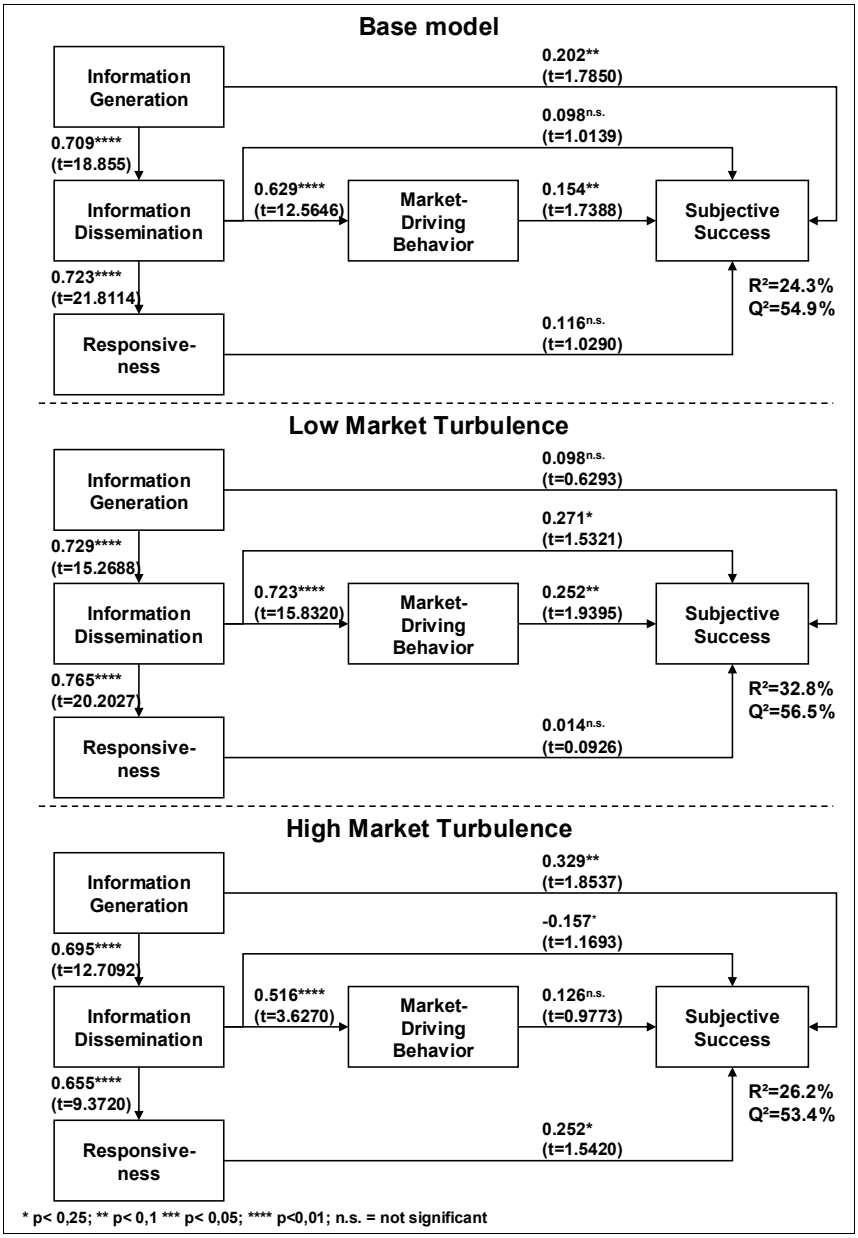

Figure 47: Extended structural model: Market Turbulence

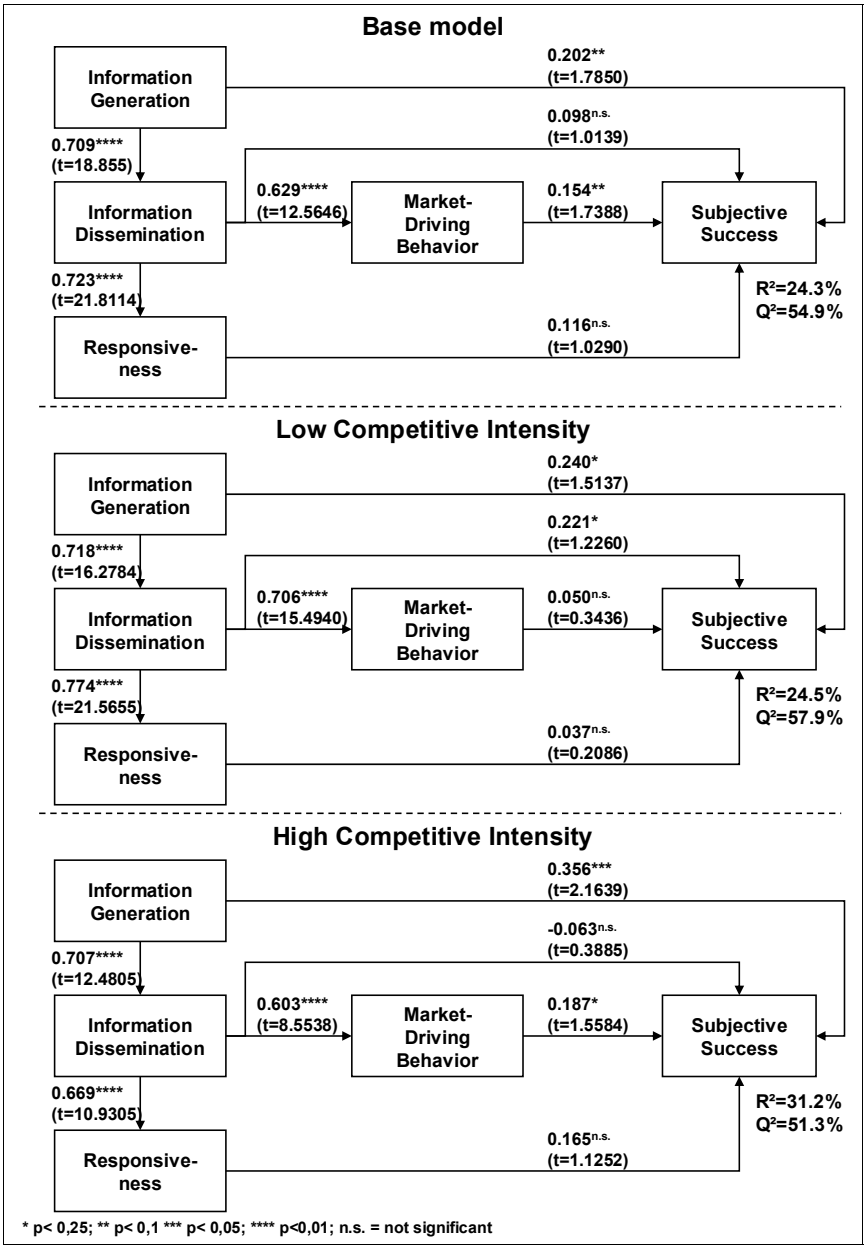

Figure 48: Extended structural model: Competitive Intensity

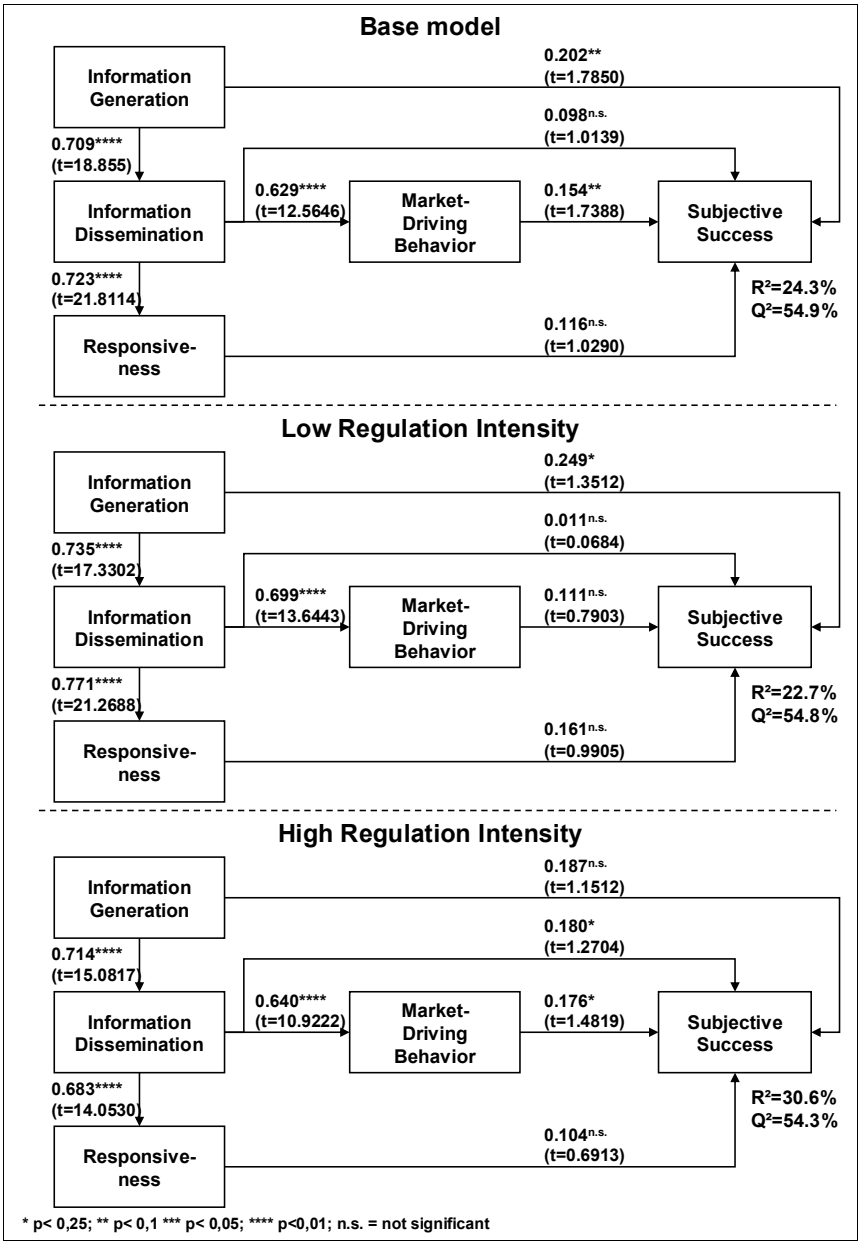

Figure 49: Extended structural model: Regulation Intensity

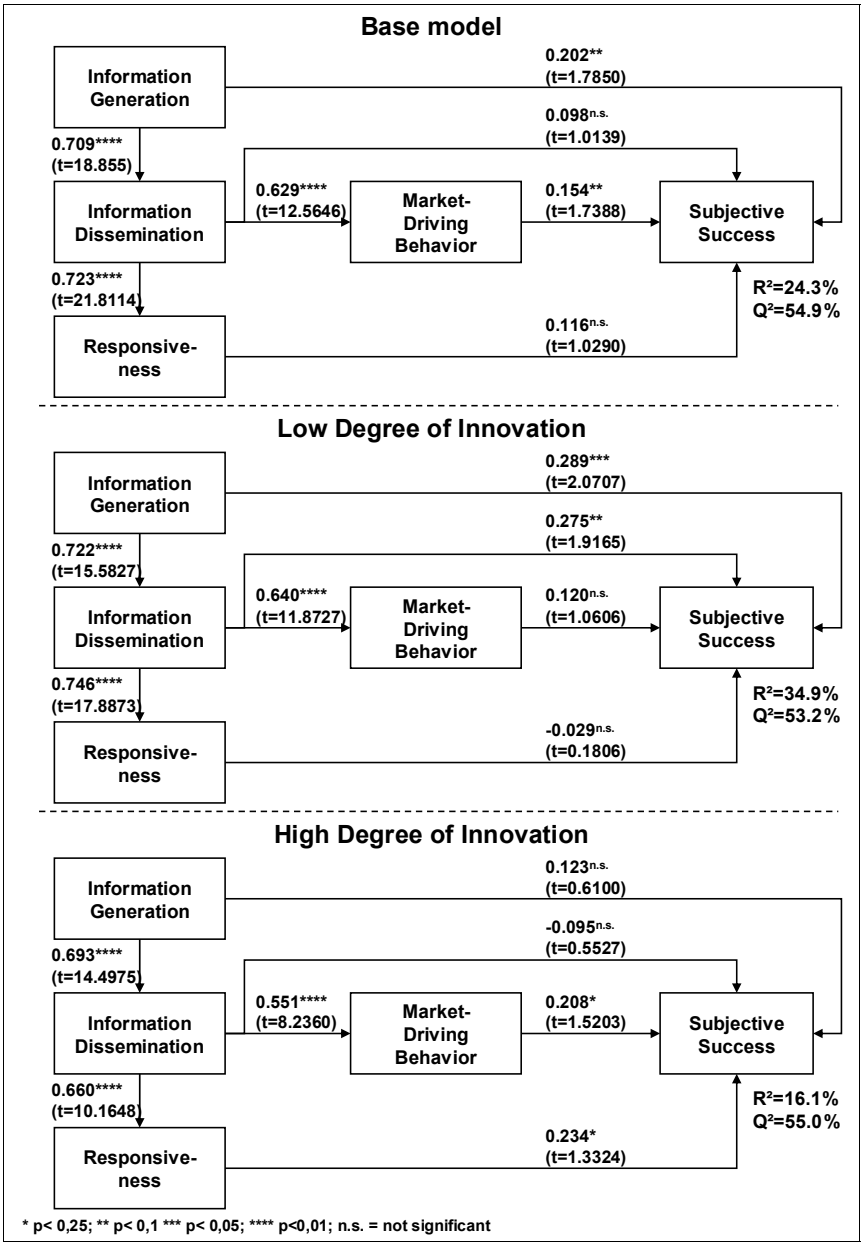

Figure 50: Extended structural model: Degree of Innovation

8.3.2 Reliability and validity for moderator constructs

Technology Turbulence			
Specification:	Reflective	Cronbachs Alpha:	0,892
Composite Reliability:	0,923	AVE:	0,750
Indicator	**Question**	**Loading**	**T-Value**
TeT01	1. Die Technologie in unserer Branche ändert sich schnell	0,886	22,0488
TeT02	2. Die technologische Veränderung eröffnet unserer Industrie große Chancen	0,913	19,3081
TeT03	3. Eine große Zahl neuer Produktideen in unserer Branche wurde durch technologische Fortschritte möglich gemacht	0,897	8,6858
TeT04	4. Technologische Entwicklungen in unserer Branche sind zu vernachlässigen (R)	0,758	6,0308

Table 36: Evaluation of construct "Technology Turbulence"

Market Turbulence			
Specification:	Reflective	Cronbachs Alpha:	0,675
Composite Reliability:	0,861	AVE:	0,756
Indicator	**Question**	**Loading**	**T-Value**
MaT01	1. In unserer Branche ändern sich die Produktpräferenzen unserer Kunden spürbar	0,893	22,5285
MaT02	2. Unsere Kunden sehen sich ständig nach neuen Produkten und Dienstleistungen um	0,845	16,2877
MaT03	3. Wir stellen fest, dass Kunden, die sich früher nicht für unsere Produkte und Dienstleistungen interessiert haben, nun bei uns kaufen	eliminated	
MaT04	4. Neue Kunden haben tendenziell andere produktbezogene Präferenzen als unsere existierenden Kunden	eliminated	
MaT05	5. Viele unserer früheren Kunden werden auch heute noch von uns bedient (R)	eliminated	

Table 37: Evaluation of construct "Market Turbulence"

Competitive Intensity			
Spezifikation:	reflektiv	Cronbachs Alpha:	0,518
Composite Reliability:	0,801	AVE:	0,671
Indicator	**Question**	**Loading**	**T-Value**
COM01	1. Der Wettbewerb in unserer Branche ist intensiv	0,733	3,824
COM02	2. Alles, was ein Wettbewerber in unserer Branche anbieten kann, können die anderen leicht imitieren	eliminated	
COM03	3. Preiswettbewerb ist ein Kennzeichen unserer Branche	eliminated	
COM04	4. Wir hören fast jeden Tag von einer neuen Entwicklung im Wettbewerb	0,897	5,5047
COM05	5. Unsere Wettbewerber sind relativ schwach (R)	eliminated	

Table 38: Evaluation of construct "Competitive Intensity"

Regulation Intensity			
Specification:	Reflective	Cronbachs Alpha:	0,701
Composite Reliability:	0,860	AVE:	0,756
Indicator	**Question**	**Loading**	**T-Value**
REG01	1. Die Regulierungsdichte (Anzahl der Vorschriften, Ausmaß der Beeinträchtigung durch diese, etc.) in unserer Branche ist hoch	0,946	2,586
REG02	2. Die bestehende Arbeitsmarktregulierung (Arbeitszeiten, Kündigungsschutz, Mindestlöhne, etc.) ist sehr ausgeprägt	0,785	3,418
REG03	3. Die bestehende Regulierung in unserer Branche erleichtert neue Unternehmensgründungen	eliminated	
REG04	4. Die bestehende Regulierung in unserer Branche fördert den Wettbewerb	eliminated	
REG05	5. Unternehmen der öffentlichen Hand zählen zu unseren Wettbewerbern	eliminated	
REG06	6. Die bestehende Regulierung fördert den internationalen Handel	eliminated	

Table 39: Evaluation of construct "Regulation Intensity"

Degree of Innovation			
Specification:	Reflective	Cronbachs Alpha:	0,816
Composite Reliability:	0,888	AVE:	0,727
Indicator	**Question**	**Loading**	**T-Value**
INO01	1. Unsere Innovation stellt eine geringe Verbesserung gegenüber bestehenden Technologien od. Prozessen dar (R)	eliminated	
INO02	2. Unsere Innovation ermöglicht eine sprunghafte Leistungssteigerung	0,900	58,5383
INO03	3. Existierende Technologien od. Prozesse werden durch unsere Innovation verdrängt	0,767	12,1894
INO04	4. Unsere Innovation bietet dem Kunden einzigartige Vorteile gegenüber Konkurrenzprodukten	0,884	44,3870
INO05	5. Unsere Innovation verlangt von den Kunden umfangreiche Einstellungs- und Verhaltensänderungen	eliminated	
INO06	6. Für die Durchsetzung unserer Innovation am Markt musste eine neue Infrastruktur (wie z.B. Wasserstofftankstellen für den Wasserstoffbetrieb von Autos) geschaffen werden	eliminated	
INO07	7. Für die Durchsetzung unserer Innovation am Markt mussten regulatorische Rahmenbedingungen (z.B. durch staatl. Stellen oder Verbände) erheblich angepasst/ geschaffen werden	eliminated	
INO08	8. Wertschöpfungsstufen werden durch unsere Innovation überflüssig oder ändern sich stark	eliminated	

Table 40: Evaluation of construct "Degree of Innovation"

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