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FEATURE ARTICLES

A RESOURCE-BASED PERSPECTIVE ON BUSINESS STRATEGIES OF NEWLY FOUNDED SUBSIDIARIES: THE CASE OF GERMAN PENSIONS FONDS

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ABSTRACT

Diversification by firms into unfamiliar areas of business is achieved either by acquisition of an existing business in the destination industry or a greenfield start-up. This article focuses on the business strategy of greenfield start-ups. We theorize and find that firms entering a market by establishing a new subsidiary rely solely on their own preexisting internal resources, making it favorable to align the business strategy of the start-up with the firm's value-generating competencies. Our empirical results, which are based on a sample of German *Pensionsfonds* and their parent companies, are consistent with the view that the business strategy choice of a newly founded subsidiary is substantially directed by the internal resources and competencies of the parent firm.

INTRODUCTION

Decisions of established firms to enter new areas of business have far-reaching implications. In entering a new industry, managers put at risk their firms' assets that could be profitably invested in alternative and potentially less risky projects. Furthermore, the success or failure of a new business venture can shape a firm's operations for multiple years and impact its future profitability and growth opportunities. Recognizing the importance of market entry decisions, researchers have extensively examined the motivation driving market entry (see, e.g., Montgomery and Hariharan, 1991; Silverman, 1999; King and Tucci, 2002; Folta and O'Brien, 2004). A second broad strand of literature analyzes the timing of the market entry, focusing specifically on early mover and late mover advantages (see, e.g., Lieberman and Montgomery, 1988, 1998; Makadok, 1998;

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Dowell and Swaminathan, 2006; Lavie et al., 2007). A third body of literature examines *how* firms enter a new market once the decision to enter the market has been made.

Diversification by firms into unfamiliar areas of business is typically achieved by the internal development of a new business from ground up, by the acquisition of an existing business in the destination industry, or by a combination of these two basic approaches. The choice of one of these entry modes creates radically different options for firms seeking diversification (see, e.g., Simmonds, 1990; Busija et al., 1997). Thus, researchers have examined the determinants of entry mode choices (see, e.g., Chatterjee, 1990; Brouthers and Brouthers, 2000), as well as the effects of entry mode choices on subsequent firm performance (see, e.g., Shaver, 1998; Brouthers et al., 2003). However, this narrow focus on entry mode choices either defined as the choice between acquisition or greenfield start-up as in Shaver (1998) or defined as the choice between a wholly owned subsidiary and a joint venture as in Brouthers et al. (2003) neglects many facets of *how* companies enter new product markets.

This article attempts to extend the narrow focus of the entry model literature by examining the business strategy choice of newly founded subsidiaries for the first time. In particular, theoretical considerations are articulated and then empirically tested to examine how a theoretically predetermined set of preentry parent firm attributes may systematically influence the choice of a business strategy for the newly founded subsidiary. The arguments presented here are centered around the resource-based view of the firm. The resource-based view is in the core of strategic management theory and has been used as a theoretical basis in numerous entry mode studies. To our knowledge, however, the existing literature does not utilize the resource-based view to explain business strategy choices of newly founded subsidiaries.

The new German market for *Pensionsfonds*' products provides an ideal natural experiment to test our theoretical concepts. The market for *Pensionsfonds*' products is a young market; it started on January 1, 2002 when the *Altersvermögensgesetz* went into force, establishing the *Pensionsfonds* as an additional form of organization providing company pension plans. All firms interested in entering this new market have to establish a new subsidiary specialized to operate in this new market: a *Pensionsfonds*. Thus, the entry mode is fixed for all entrants. Acquisitions of established firms are not possible; the only possible entry mode is greenfield start-up. In addition, all *Pensionsfonds* operating in this new market were licensed in 2002. In the following years, no additional *Pensionsfonds* have been licensed. Thus, all *Pensionsfonds* have about the same age. Furthermore, all *Pensionsfonds* were established by other firms and are, hence, subsidiaries.

Using the market for *Pensionsfonds*' products as a test case allows us to analyze *how* companies enter new product markets in more detail while holding the entry mode constant.¹ The focus of our research is on factors influencing the business strategy choice

¹ It is standard in management research to focus on one specific industry when looking for answers to general management questions. For example, Greve (2000) focuses on banks operating in Tokyo to analyze market niche entry decisions, Pettus (2001) focuses on the trucking industry to "develop a resource-based perspective for predicting the sequencing of a firm's resources that best provides for firm growth" (p. 878), and Gimeno (2004) focuses on the airline industry to examine the contingent effect of competitive embeddedness on alliance formation.

of newly founded subsidiaries. To our knowledge, neither the insurance literature nor the general management literature has addressed this topic, yet. Providing empirical evidence that the business strategy choice of a newly founded subsidiary is influenced by the parent company's resources, as predicted by the resource-based view, is what we see as the main contribution of our article.

Our research not only extends the entry mode literature, it also contributes to the insurance specific literature on corporate diversification. There are numerous studies on the relationship between product diversification and firm performance in the insurance industry (see, e.g., King, 1975; Fiegenbaum and Thomas, 1990; Hoyt and Trieschmann, 1991; Thombs and Hoyt, 1994; Berger et al., 2000; Meador et al., 2000; Cummins and Nini, 2002; Cummins et al., 2003; Liebenberg and Sommer, 2008; Elango et al., 2008) as well as on the factors influencing an insurance company's decision to enter a new product market or foreign country (see, e.g., Schroath and Korth, 1989; Zimmerman, 1999; Cole et al., 2007; Cole et al., 2008; McShane and Cox, 2009). However, previous research on the insurance industry does not examine *how* insurance companies enter a new market. Thus, our article broadens this strand of literature by focusing on the modalities of market entry.

The remainder of this article is organized as follows. The next section provides the conceptual background and explains the development of the hypothesis. The data and methodology are discussed in the third section of the article including a detailed description of the measures used in the empirical analysis. The "Results" section presents the empirical findings, and the final section concludes.

CONCEPTUAL BACKGROUND AND HYPOTHESIS

Every firm can be thought of as a bundle of resources and capabilities. Resources include all assets, firm attributes, organizational processes, information, and knowledge controlled by a firm that enable it to design and implement strategies effectively and efficiently (Barney, 1991). Capabilities refer to a combination of resources that creates higher-order competencies (Madhok, 1997). For example, knowledge about investment instruments, quantitative models, and access to trading platforms can be viewed as independent resources. Combined with organizational processes and established routines, such resources could create a capability (say, "investment competence").

The resource-based view builds on the internal competencies of a firm (Wernerfelt, 1984; Dierickx and Cool, 1989; Prahalad and Hamel, 1990); a firm's resources, capabilities, and competencies, and management's abilities to handle these assets to generate superior performance create competitive advantage (Grant, 1991). The efficient utilization of a firm's resources and capabilities as well as their effective and efficient development are the main drivers of competitive advantage (March, 1991). Thus, when a firm enters into new markets and activities where it lacks the requisite level of knowledge, and when this knowledge cannot be developed within an acceptable time frame or cost, then acquisitions are useful vehicles to enhance the knowledge base. Whenever a firm enters into new markets or activities where the firm already possesses the required knowledge and routines, establishing a new subsidiary would be the preferred entry mode since it allows the firm to exploit its in-house resources and capabilities (Madhok, 1997; Erramilli et al., 2002). However, a firm can only exploit its resources and capabilities if the subsidiary chooses a business strategy that utilizes these capabilities. Hence, there

is a strong incentive for the firm to use its control to ensure that the subsidiary aligns its business strategy choice with the parent firm's capabilities.² In sum, the resource-based view suggests the following:

Proposition: Newly founded subsidiaries choose a business strategy that utilizes the parent firm's resources and capabilities.

We develop a testable hypothesis to study the proposition that the business strategy choice of a subsidiary may depend on its parent firm's competencies in the context of German *Pensionsfonds*. The German *Pensionsfonds* industry has five characteristics that make it ideal to test the proposed concept.

First, *Pensionsfonds* did not exist in Germany before January 1, 2002 when the *Altersvermögensgesetz* went into effect, establishing the *Pensionsfonds* as an additional form of organization providing company pension plans. Therefore, the *Altersvermögensgesetz* essentially created a new market: the market for *Pensionsfonds*' products. Second, only *Pensionsfonds*, which are corporations specifically established to provide the types of pension plans described in the Regulatory Law, are allowed to operate in this market. Thus, if a firm was interested in entering this new market in 2002 it had to enter the market by founding a *Pensionsfonds* and internally developing the new subsidiary's business from ground up. The acquisition of an established *Pensionsfonds* was not a possible entry mode.

Third, all *Pensionsfonds* licensed by the German insurance authority (BAFin) so far were established by other firms and, hence, are newly founded subsidiaries. Most of the parent firms are from the financial services sector offering a variety of other investment products or retirement plans for companies and individuals.³ Fourth, all *Pensionsfonds* operating in this new market were licensed in 2002; in the following years no additional *Pensionsfonds* has been licensed. Therefore, all *Pensionsfonds* are about the same age.

Fifth, compared to the other organizational forms providing company pension plans in Germany, *Pensionsfonds* face very few legal restrictions regarding their product design and investment strategy. For example, an important feature of any pension plan

² All licensed *Pensionsfonds* have the organizational form of a stock company. German stock companies have a two-board structure. The managing board (*Vorstand*) consists of the top executives that actually run the company. The supervisory board (*Aufsichtsrat*) represents the owners/shareholders of the company. Duties of the supervisory board include hiring and firing top executives, and supervising the appropriateness of business processes in the corporation as well as major business decisions. From a legal perspective, all decisions regarding business operations are made by the managing board including the choice of business strategy. For major strategic decisions, the managing board usually gets the consent of the supervisory board before implementing these decisions, and the threat of dismissal acts as a disciplining device. In the case of a parent company and its subsidiary, the parent company sends representatives to the supervisory board of the subsidiary, but not necessarily to the managing board. It is important to note that the supervisory board is a part of the subsidiary. Therefore, when we use the notion that the "subsidiary chooses a business strategy" in this article, we refer to both situations: a free decision of the managing board as well as active intervention by the representatives of the parent company on the supervisory board.

³ We would like to mention that there are no specific tax incentives or tax motivations for parent firms to start a *Pensionsfonds*.

is whether it guarantees a certain level of retirement benefits or a certain minimum interest rate that ensures a prespecified accumulation of wealth for retirement. The *Pensionsfonds* is the only organizational form that is only required to guarantee the sum of all contributions at the point in time of retirement. However, *Pensionsfonds* are free to give additional interest rate guarantees or to offer defined benefit pension plans. Furthermore, the *Pensionsfonds* is the only organizational form that does not need to meet the limits for investments in certain asset categories coded in the regulatory law (*Versicherungsaufsichtsgesetz* and *Kapitalanlageverordnung*) and can, hence, invest up to 100 percent of its assets in stocks. This flexibility allows *Pensionsfonds* to offer a wide variety of products ranging from traditional pension plans with interest rate guarantees to products based on aggressive investment strategies. Thus, we expect to find multiple distinct business strategies among the universe of German *Pensionsfonds*.

In sum, the German *Pensionsfonds* industry consists of newly founded subsidiaries with different business strategies and, hence, provides an ideal natural experiment to test the theoretical concept that newly founded subsidiaries choose a business strategy that utilizes the parent firm's resources and capabilities. Therefore, we propose:

Hypothesis: German Pensionsfonds choose a business strategy that utilizes the parent firm's resources and capabilities.

METHODS

Our analysis is based on survey data of German *Pensionsfonds*. The survey is based on the strategic group literature. Strategic groups represent collections of firms that are similar in key strategic dimensions (Hunt, 1972; Porter, 1979), namely, the scope of operations and the resource deployment methods (Cool and Schendel, 1987; Mehra, 1996). Our survey captures these two traits with multiple measures. The empirical analysis is based on two steps. First, we perform a cluster analysis to form strategic groups. Then, we examine whether competencies of the parent company can explain a *Pensionsfonds'* membership in a specific strategic group.⁴

Survey

To test our hypothesis, we developed a comprehensive survey capturing the scope of operations and the resource deployment methods of German *Pensionsfonds* as well as characteristics of their parent companies. We collected promotional material and sample contracts of the *Pensionsfonds* and developed a questionnaire based on this information. Using the penultimate version of the survey, we conducted a beta test with the CEO of one *Pensionsfonds*. The final survey was conducted as a series of standardized telephone interviews. The reference year of our survey is 2004. In 2004, there were 24 *Pensionsfonds* licensed by the German Insurance Authority, but only 19 of these 24 *Pensionsfonds* actually were in operation. Eighteen of these 19 operating *Pensionsfonds* actively sell their

⁴ Most populations have subgroups that share general characteristics. The goal of cluster analysis is to find such groups of similar objects based on a prespecified set of characteristics (e.g., creating a biological taxonomy, defining psychiatric profiles, identifying customer types). Cluster analysis groups objects into clusters by maximizing the homogeneity of objects within clusters while also maximizing the heterogeneity between clusters. In sum, cluster analysis brings order to the data in the form of structure among the observations. This structure is often used as a basis for more refined statistical analyses (Hair et al., 2006, p. 553 ff.).

products and work on expanding their customer base. The 19th *Pensionsfonds*, however, was only set up to provide pension plans for the employees of one corporation and, hence, does not really participate in the market for *Pensionsfonds*' products. Therefore, we excluded this *Pensionsfonds* from our analysis. Fifteen of the 18 active *Pensionsfonds* participated in our survey that corresponds to a response rate of 83%.⁵

Measures

Resources and Capabilities. All *Pensionsfonds* were established by firms from the financial services sector. Some of these firms can be classified as insurance companies, some of them as investment companies, others as banks. Each of these segments of the financial services market requires a different combination of resources and capabilities to be successful. To capture the parent companies' set of competencies, we use the following three measures.

Life insurance coverage (P_LIFE): The production of life insurance coverage is a complex task. It requires the interaction of skillful and knowledgeable experts from different fields. Actuaries price the various products based on statistically derived mortality tables, lawyers design the contracts and even the sales force needs to be familiar with the basic concepts of personal financial planning and the tax code. Insurance companies operating in life insurance lines develop core competencies in these lines of business (McShane and Cox, 2009). The competencies needed to successfully provide life insurance coverage are not easy to replicate. Newly founded life insurance companies need multiple years before they become profitable. In addition, efficiency studies document a positive relationship between life insurers' age and their technical and cost efficiency (see, e.g., Huang et al., 2007), implying that competencies for successfully running a life insurance company need time to develop. To capture the set of capabilities associated with providing life insurance coverage, we include the P_LIFE variable in our analysis. This dummy variable is coded as 1 if the parent company is a life insurer or owned a life insurer in the year before establishing a *Pensionsfonds* and 0 otherwise.⁶

Investment management (P_INVEST): The management of an investment portfolio requires specific knowledge about the asset categories the portfolio is invested in. Investment companies offering multiple managed portfolios or mutual funds therefore employ experts for each of these asset categories. Life insurance companies can also be viewed as investment companies since they invest the premiums they receive to build up funds for benefits in later years. While some life insurers deploy a rather passive investment strategy based on fixed-income securities, other life insurers manage their portfolio actively and invest a substantial fraction of their assets in stocks. Especially

⁵ We would like to point out that the small absolute number of observations is irrelevant in the cluster analysis. Hair et al. (2006) write the following about sample size in cluster analysis (p. 571): "The issue of sample size in cluster analysis does not relate to any statistical inference issue (i.e., statistical power). Instead the sample size must be large enough to provide sufficient representation of small groups within the population and represent the underlying structure." Since we have 83% of all *Pensionsfonds* in our sample, we argue that our sample represents the underlying population well.

⁶ We argue that a dummy variable is appropriate in our study since all life insurance parents in our sample are well-established corporations (none of them is a start-up, none of them is a small niche player). Following McShane and Cox's (2009) argumentation, all of them have competencies in providing life insurance coverage.

these latter insurance companies have knowledge, infrastructure, organizational processes, and established routines to manage investments efficiently and effectively. To capture the set of capabilities associated with asset management activities, we include the P_INVEST variable in our analysis. This dummy variable is coded the following way. If the parent company is a life insurer or owns a life insurer, P_INVEST is coded as 1 if this life insurance company has invested more than 500 million euros in stocks, and 0 otherwise. If the parent company is an investment company or owns an investment company, P_INVEST is coded as 1 if the amount of assets under management invested in stocks exceeds 500 million euros, and 0 otherwise.⁷ These investment numbers are obtained from the corresponding financial reports for the year before the *Pensionsfonds* was established.

Risk-bearing capacity (P_CAPACITY): All parent companies are financial services firms, and, hence, belong to regulated industries. One of the main goals of both banking and insurance regulation is to ensure that firms in these industries are operating on a financially sound basis. Therefore, banks and insurance companies have to meet a certain capital requirement. The amount of capital they are required to hold depends on the risks they assume: the riskier their business the more capital they need to hold. This also implies that if a company has excess capital it can assume more risk. Thus, we can think of a company's excess capital as a resource, namely, its risk-bearing capacity. This view is consistent with Kleffner and Doherty (1996) who argue that risk bearing is costly and that companies with a comparative advantage in risk bearing will assume more risk. Among the factor they identify to influence the cost of risk bearing is the capacity to absorb unexpected losses. To proxy for a firm's ability to assume risk, we include the P_CAPACITY variable in our analysis that represents the parent company's excess (equity) capital for the year before the *Pensionsfonds* was established. More precisely, P_CAPACITY is calculated as the difference between the parent company's equity capital and the amount of capital the company is required to hold based on the regulatory law. The unit of measurement is billions of euros.

Strategic Variables. We form strategic groups of German *Pensionsfonds* by cluster analyzing survey data. We then interpret a *Pensionsfonds'* membership in a strategic group as its choice of a business strategy. Traditionally, membership in strategic groups is defined through the possession of characteristics that affect competitive advantage (McGee and Thomas, 1986). Later research has extended this definition through the identification of two types of traits important to competition: scope of operations and resource deployment (Cool and Schendel, 1987; Mehra, 1996). Within this conceptual framework we choose particular strategic variables based on prior strategic group studies of the insurance industry. More precisely, we closely follow the variable selection in Ferguson et al. (2000). Since Ferguson et al. focus on property-casualty insurers, we adopt their measures to German *Pensionsfonds*. We use one variable less; we do not include an organizational form variable in our analysis because all *Pensionsfonds* have the same organizational form.⁸ The following two sections explain our variables

⁷ To check the robustness of our results, we repeat the analysis with a dummy based on other cutoffs including 250 million euros, 1 billion euros, and the 25th, 33rd, and 50th percentile value of the distribution across our sample (see the Results section).

⁸ In the context of cluster analysis multicollinearity is basically a form of implicit weighting (Hair et al., 2006). Therefore, it is important to have the same number of variables in each set. By

TABLE 1
Variables Measured for Each *Pensionsfonds*

Panel A: Variable Definitions

Strategic Component	Strategic Variable	Definition
<i>Scope of operations</i>		
Product scope defined contribution vs. defined benefits	DEFINED BENEFITS	(Number of defined contribution pension plans)/(total number of pension plans); reported in %
Product scope coverage	COVERAGE	Number of additional coverages chosen by the majority of insureds (e.g., survivor's benefit for spouse, long-term disability coverage)
Product scope free investment	FREE INVESTMENT	Percentage of premium payments (net of expenses) not used to secure pension guarantees; this portion can be invested without any restrictions
Product diversity	DIVERSITY	Number of different pension plans offered
Size	SIZE	Number of pension plan participants
Start-up	START-UP	Dummy variable = 1 if a <i>Pensionsfonds</i> realized an overall loss in 2004
<i>Resource deployment</i>		
Distribution	EXCLUSIVE NETWORK	Dummy variable = 1 if a <i>Pensionsfonds</i> uses exclusively the network of its parent company to distribute its products
Investment	ASSET MANAGEMENT	Dummy variable = 1 if a <i>Pensionsfonds</i> manages its investments itself
Knowledge	INVESTMENT EXPENSES	Investment expenses in thousands of euros/total expenses; reported in %
Use of group resources	GROUP RESOURCES	Dummy variable = 1 if a <i>Pensionsfonds</i> uses its parent company or a subsidiary of its parent as an outsourcing partner for its investment management

(continued)

capturing scope of operations and resource deployment methods in detail. Table 1 gives an overview of the variable definitions.

using the strategic dimensions and the number of variables established in the literature, we take precaution to avoid multicollinearity in our analysis. At least, we ensure that we use the "standard weights" established in the literature.

TABLE 1
(Continued)

Panel B: Descriptive Statistics

Variable	Mean	Median	Standard Deviation
DEFINED BENEFITS	83.47	99.00	32.38
COVERAGE	2.47	2.00	1.51
FREE INVESTMENT	37.88	33.00	33.05
DIVERSITY	3.67	3.00	2.09
SIZE	3,936.47	1,849.00	4,390.87
START-UP (%)	46.67		
EXCLUSIVE NETWORK (%)	66.67		
ASSET MANAGEMENT (%)	60.00		
INVESTMENT EXPENSES	10.38	3.20	15.59
GROUP RESOURCES (%)	46.67		

Scope of Operations Variables. There are different strategic components in the strategic management literature to capture the scope of operations. The scope of operations is the degree to which an organization sells products offered by the industry, or the number of niches in which the firm operates. *Pensionsfonds* are commonly characterized by the type of product they offer (e.g., defined contribution or defined benefits pension plans). In addition, the diversity in pension plans sold by the *Pensionsfonds*, whether they offer additional coverages and other product options, as well as the organizational size are expected to be indicators of relative scope of operations.

Defined contribution versus defined benefits (DEFINED BENEFITS): This variable represents the division between the two basic types of pension plans. The defined benefit plan guarantees a certain level of retirement benefits whereas the defined contribution plan only fixes the amount the employer will contribute to the plan. The DEFINED BENEFITS variable measures the proportion of defined contribution pension plans in a *Pensionsfonds'* business portfolio.

To capture the different product characteristics of *Pensionsfonds'* pension plans in more detail, the survey included five additional questions on the features of a *Pensionsfonds* main product. The main product was defined as the pensions plan with the highest premium volume. For each of the *Pensionsfonds* participating in the survey, the main product accounts for more than 80% of their overall premium volume.

Additional coverage (COVERAGE): In combination with the standard retirement benefits, *Pensionsfonds* can offer additional benefits such as survivors' benefits or long-term disability benefits. The variable COVERAGE measures the number of different additional benefits chosen by the majority of beneficiaries.⁹

⁹ To achieve a high response rate in our survey, we avoided asking for detailed internal management accounting data. Therefore, we do not know which fraction of the premium volume

Free investment (FREE INVESTMENT): In the accumulation phase of a pension plan, *Pensionsfonds* tend to secure the given guarantees with adequate investments. Depending on the type of investment strategy, a higher or lower portion of the premium is needed to cover the given guarantees. The remainder of the premiums can be invested without any restrictions. Thus, we call that part of a *Pensionsfonds'* investment portfolio that is not directly needed to cover guarantees the free investment. The variable FREE INVESTMENT is defined as the percentage of premium payments (net of expenses) that is not used to secure pension guarantees.

Product diversity (DIVERSITY): Compared to other organizational form offering company pension plans, *Pensionsfonds* have much more freedom with respect to their product design and asset management. Therefore, they can offer a wide variety of products. The DIVERSITY variable measures the number of different pension plans offered by a *Pensionsfonds*.¹⁰

Size (SIZE): The size of a *Pensionsfonds* is expected to influence scope of operations due to potential economies of scale and scope as well as the response to environmental changes. For example, larger *Pensionsfonds* wield more market power but are potentially handicapped through decreased flexibility (Hitt et al., 1995). We measure SIZE as the total number of pension plan participants across all pensions plans offered by the *Pensionsfonds* in 2004.¹¹

Start-up (START-UP): To differentiate between *Pensionsfonds* that are still struggling to build up their operations and more "seasoned" *Pensionsfonds*, we include the START-UP variable. This dummy variable is coded as 1 for *Pensionsfonds* that made a loss in 2004, and 0 otherwise.

Resource Deployment Variables. Organizational value is influenced by the level of resource commitment a company makes to company functions important for efficient operations. In addition, emphasizing financial management with strategic capital allocation and strategic investments in internal projects, a company is in a position to exploit and influence opportunities to create a higher total value.

Distribution (EXCLUSIVE NETWORK): The selection of a distribution channel is an important strategic decision as product dissemination into the target market is crucial for product success (see Anderson and Schmittlein, 1984; Anderson, 1985). None of the *Pensionsfonds* has its own sales force. Most *Pensionsfonds* rely on the distribution network of their parent companies; however, some of them use distribution networks of partner

for a specific pension plan is devoted to each of the additional benefits offered, and hence, we cannot calculate a concentration measure, such as a Herfindahl index measuring a *Pensionsfonds'* concentration or diversification in these add-on benefits.

¹⁰ We do not use the commonly used Herfindahl index to measure product diversity for the following two reasons. First, all *Pensionsfonds* in our sample have one main product that accounts for more than 80% of their overall premium volume and, hence, reduces the possible variation of a product Herfindahl index across *Pensionsfonds* substantially. Second, in order to achieve a high response rate in our survey, we avoided asking for detailed internal management accounting data such as the breakdown of the premium volume by pension plans that would be needed to calculate a product Herfindahl index.

¹¹ Total number of pension plan participants across all pension plans offered by a *Pensionsfonds* is the measure used by the German regulatory authority to describe the size of a *Pensionsfonds*. This measure is equivalent to "number of policies in force" for an insurance company.

companies. The choice whether to use distribution channels of the parent company or other indirect distribution channels impacts the degree of managerial control over product marketing, potential market penetration, and overall cost effectiveness (Barrese and Nelson, 1992). The dummy variable EXCLUSIVE NETWORK in our analysis is coded as 1 for *Pensionsfonds* using the parent company's distribution system and 0 otherwise.

Investment (ASSET MANAGEMENT): Investments are an important source of revenues for a *Pensionsfonds*. The ASSET MANAGEMENT variable is a dummy variable coded as 1 if a *Pensionsfonds* has an asset management department and manages its own investments, and 0 otherwise.

Knowledge (INVESTMENT EXPENSES): One of the most complex tasks operating a *Pensionsfonds* is the management of its investments to secure all pension guarantees. A wholistic asset liability management approach requires considerable know-how. Since a *Pensionsfonds'* investment expenses include the salaries of asset managers, we use the ratio of investment expenses to total expenses as proxy for a *Pensionsfonds'* investment in and building up of business related knowledge.

Use of group resources (GROUP RESOURCES): All *Pensionsfonds* are subsidiaries of a firm. Depending on their relationship to the parent company and to the other subsidiaries of its parent, it can be beneficial for *Pensionsfonds* to outsource some complex tasks to other companies within this group. Our GROUP RESOURCES variable is a dummy coded as 1 if the management of additional investment portfolios, for example, mutual funds, is outsourced to a company within the group, and 0 otherwise.

Statistical Analysis

Strategic Groups. We use cluster analysis to form strategic groups. To avoid the problem that differing scales among the variables give variables with a larger magnitude more influence on the resulting clusters, we standardize each variable by subtracting its mean and dividing by its standard deviation. We adopt a two-step clustering approach (hierarchical and *k*-means) to mitigate the potential biases introduced by a single method (Ketchen and Shook, 1996). For the hierarchical method, we used the visual inspection of tree-plots, a conventional method for determining the appropriate number of clusters (see Ketchen et al., 1993; Miles et al., 1993). Initial cluster centers taken from the first step were then used in the *k*-means step (i.e., Wards clustering method), to reduce problems associated with random seed setting (Hair et al., 2006).

Hypothesis Testing. Since strategic groups represent collections of firms that are similar in key strategic dimensions (Hunt, 1972; Porter, 1979) and since all *Pensionsfonds* are newly founded firms, we interpret a *Pensionsfonds'* membership in a strategic group as its choice of a business strategy. We then use *t*-tests of differences in means and chi-square tests to examine the univariate relationship between a *Pensionsfonds'* choice of a business strategy and its parent company's resources and competencies. In addition, we use analysis of variance (ANOVA) to analyze the multivariate effect of the parent company's competencies on a *Pensionsfonds'* strategy choice.

RESULTS

In Table 2, we present Pearson correlations and Spearman's rho correlations for the variables used in the cluster analysis. The lowest value reported in Table 2 is -0.64 ; the

TABLE 2
Correlations

Strategy Variable	1	2	3	4	5	6	7	8	9	10
<i>Scope of operation</i>										Spearman's rho
1. DEFINED BENEFITS		-0.34	0.11	-0.49*	0.06	-0.24	0.51**	0.09	0.10	-0.01
2. COVERAGE	-0.32		0.14	-0.11	0.52**	0.17	-0.12	0.46*	0.04	0.10
3. FREE INVESTMENT	0.07	0.23		-0.29	-0.01	0.11	0.02	0.24	0.08	0.01
4. DIVERSITY	-0.48*	-0.14	-0.28		-0.15	0.10	-0.19	-0.30	0.28	0.18
5. SIZE	0.18	0.48*	-0.18	-0.36		0.21	0.18	0.28	-0.11	0.07
6. START-UP	0.03	0.18	0.09	0.03	-0.09		-0.03	0.42	-0.64***	0.24
<i>Resource deployment</i>										
7. EXCLUSIVE NETWORK	0.05	-0.06	0.01	-0.11	0.49*	-0.06		0.10	-0.02	0.21
8. ASSET MANAGEMENT	0.25	0.48*	0.34	-0.31	0.31	0.42	0.12		0.06	-0.36
9. INVESTMENT EXPENSES	0.23	-0.02	0.15	-0.54**	0.39	-0.51**	0.33	0.03		-0.37
10. GROUP RESOURCES	-0.29	0.09	-0.06	0.21	-0.15	0.24	0.17	-0.36	-0.17	
	Pearson Correlations									

*, **, and *** indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels.

TABLE 3
Results of Two-Step Cluster Analysis

Group 1	Group 2
AMB Generali Pensionsfonds Aktiengesellschaft	Allianz Pensionsfonds Aktiengesellschaft
LVM Pensionsfonds-AG	Chemie Pensionsfonds AG
R&V Pensionsfonds Aktiengesellschaft	Deutscher Pensionsfonds AG
Swiss Life Pensionsfonds AG	DEVK Pensionsfonds AG
WWK Pensionsfonds Aktiengesellschaft	HVB Pensionsfonds AG
	Lippische Pensionsfonds AG
	PENSOR Pensionsfonds AG
	Postbank Pensionsfonds Aktiengesellschaft
	Sparkassen Pensionsfonds AG
	VIFA Pensionsfonds AG

highest correlation is 0.51. While some of the correlation coefficients are significant, the degree of correspondence between the strategy variables is not very high. We would also like to mention that multicollinearity in the context of a cluster analysis is basically a form of implicit weighting (Hair et al., 2006). By using the strategic dimensions and their measures established in the literature, we take precaution to avoid multicollinearity in our analysis. At least, we ensure that we use the "standard weights" established in the literature.

Two groups of *Pensionsfonds* with significantly different strategic competitive profiles were identified through the two-step clustering. Table 3 lists the *Pensionsfonds* within each strategic group. These groups differ in scope of operations and resource deployment, with a Wilks' lambda $F = 6.19$ (d.f. = 10, 4; $p = 0.047$). Three of the 10 strategic variables were significantly different across the two identified groups, as presented in Table 4.

Group 1 consists mainly of smaller *Pensionsfonds* without an own asset management department offering more standardized products exclusively via the parent company's distribution network. The variable that best distinguishes Group 1 from the other group is the ASSET MANAGEMENT variable. This is a dummy coded as 1 if a *Pensionsfonds* has an asset management department to manage its own investments and 0 otherwise. All *Pensionsfonds* in Group 1 do not manage their investments themselves but hedge all pension liabilities by purchasing corresponding life insurance coverage or annuities. Therefore, these *Pensionsfonds* do not face an asset-liability mismatch risk. We can think of these *Pensionsfonds* as financial intermediaries, which transfer the actual pension business to a life insurance company. Such *Pensionsfonds* basically sell traditional German life insurance products and annuities under a new label. Since Group 1 *Pensionsfonds* do not have an asset management department, they tend to have lower fixed costs than their peers from Group 2. Therefore, all *Pensionsfonds* in Group 1 were already profitable in 2004 (see START-UP variable). Furthermore, Group 1 *Pensionsfonds* tend to offer less product choices to their customer (see COVERAGE variable).

TABLE 4
Univariate Differences Across Strategic Groups

Strategy Variable	Wilks' Lambda $F = 6.19$; d.f. = 10, 4; $p = 0.047$				
	Group 1 ($N = 5$)		Group 2 ($N = 10$)		
	Mean	(SD)	Mean	(SD)	
<i>Scope of operations</i>					
DEFINED BENEFITS	71.30	(39.73)	89.55	(28.39)	1.031
COVERAGE	1.40	(1.14)	3.00	(1.41)	2.187
FREE INVESTMENT	19.20	(21.46)	47.22	(34.69)	1.638
DIVERSITY	4.60	(2.51)	3.20	(1.81)	-1.245
SIZE	1863.60	(1834.30)	4972.90	(4991.46)	1.328
START-UP (%)	0.00		0.70		6.563
<i>Resource deployment</i>					
EXCLUSIVE NETWORK (%)	0.80		0.60		0.600
ASSET MANAGEMENT (%)	0.00		0.90		11.250
INVESTMENT EXPENSES	14.57	(23.11)	8.28	(11.23)	-0.724
GROUP RESOURCES (%)	0.60		0.40		0.536

** and *** indicate statistical significance at the 5 percent and 1 percent levels.

TABLE 5
Univariate Results

Cluster	Number of Firms	P_LIFE	P_INVEST	P_CAPACITY	
				Mean	(SD)
Group 1	5	100%	20%	0.404	(0.424)
Group 2	10	50%	30%	3.456	(5.469)
χ^2 -test		3.750	0.171		
<i>p</i> -value		0.053*	0.680		
<i>t</i> -test				1.754	
<i>p</i> -value				0.113	

* indicates statistical significance at the 10 percent level.

Group 2 consists mainly of larger *Pensionsfonds* with their own asset management department offering products with multiple additional coverage. The fundamental difference between Groups 1 and 2 is that all *Pensionsfonds* in Group 2 manage their investments themselves. Therefore, these *Pensionsfonds* are able to offer products based on more aggressive investment styles compared to traditional German annuity products that require a conservative investment style to fulfill the inherent interest rate guarantees. Because of their relatively high fixed costs, 70% of Group 2 *Pensionsfonds* were still not profitable in 2004.

To check whether our cluster results are robust to deletion of observations, we sort the *Pensionsfonds* in both groups alphabetically, delete one observation from Group 1 and two observations from Group 2, and rerun the analysis.¹² In each run, the included *Pensionsfonds* end up in the same cluster as in the run based on the whole sample. Therefore, we conclude that the derived strategic groups are stable.

Our hypothesis proposed that the resource-based view of the firm can explain the business strategy choice of newly founded subsidiaries. To test whether the differences in business strategies among the young German *Pensionsfonds* can be explained by the resources and capabilities of their parent companies, we perform a univariate as well as a multivariate analysis.

Table 5 presents the results of chi-square tests and a *t*-test of differences in group means. We can see that there are significant differences in the P_LIFE variable across the two strategic groups ($p = 0.053$). All *Pensionsfonds* in Group 1 are subsidiaries of parent companies, which are life insurance companies themselves or own a life insurance company,

¹² More precisely, we use the alphabetically sorted listing of *Pensionsfonds* in Table 3 and number the *Pensionsfonds* in both groups separately. We then perform five additional cluster analyses. First, we delete no. 1 from Group 1 and no. 1 and no. 2 from Group 2 and perform a cluster analysis. Then we delete no. 2 from Group 1 and no. 3 and no. 4 from Group 2 and perform a cluster analysis. Finally, we delete no. 5 from Group 1 and no. 9 and no. 10 from Group 2 and perform a cluster analysis.

but only 50% of the *Pensionsfonds* in Group 2 are subsidiaries of a parent company with expertise in the life insurance business. This result indicates that *Pensionsfonds* owned by a firm with competencies in providing life insurance coverage are significantly more likely to choose Strategy 1 than their peers owned by a firm unfamiliar with the life insurance business. The main characteristic of Strategy 1 is that *Pensionsfonds* hedge all pension liabilities by investing in appropriate life insurance policies and annuities. Therefore, this result is consistent with our hypothesis that *Pensionsfonds* choose a business strategy that utilizes the parent firm's resources and capabilities. With respect to the P_INVEST and P_CAPACITY variables, we are not able to find statistically significant differences across the strategic Groups 1 and 2. However, a slightly higher fraction of Group 2 *Pensionsfonds* are subsidiaries of a parent company with expertise in the investment management business compared to Group 1 *Pensionsfonds*, and the parent companies of Group 2 *Pensionsfonds* have on average about 8.5 times more excess capital than parent companies of Group 1 *Pensionsfonds*.

Table 6 presents the multivariate results of an ANOVA. The model explains the business strategy choice of a *Pensionsfonds* with variables that describe the resources and capabilities of the parent firm. The ANOVA model is significant at the 5 percent level with an R^2 statistic of 0.507, indicating a good overall model fit. The p -values reported for individual variables are based on F -tests. The P_LIFE variable is significant at the 5 percent level, indicating that *Pensionsfonds* owned by a firm with competencies in producing life insurance coverage are more likely to choose Strategy 1 than Strategy 2. This result provides support for our hypothesis that *Pensionsfonds* choose a business strategy that utilizes the parent firm's resources and capabilities, since Strategy 1 builds on hedging all pension liabilities with appropriate life insurance policies and annuities. The P_CAPACITY variable is significant at the 5 percent level, indicating that a *Pensionsfonds* owned by a firm with a relatively high excess capital level is more likely to choose Strategy 2 than Strategy 1. *Pensionsfonds* using Strategy 2 manage their investments themselves and, hence, bear a substantial asset-liability mismatch risk. Since a parent firm with a high capital level in excess of the regulatory requirements for its existing

TABLE 6
Multivariate Results

	Direction of Relationship	ANOVA	
		F -Statistic	p -Value
	More likely to be in		
P_LIFE	Group 1	8.225	0.015**
P_INVEST	Group 1	0.186	0.674
P_CAPACITY	Group 2	5.726	0.036**
Sig. model		0.044**	
R^2		0.507	
Adj. R^2		0.372	

**indicate statistical significance at the 5 percent level.

business is able to assume additional risks without jeopardizing its overall financial stability, the subsidiary's choice of the more risky Strategy 2 utilizes the parent firm's risk-bearing capacity, providing support for our hypothesis. The P_INVEST variable is not significant and hence neither supports nor rejects our hypothesis.

In summary our empirical results show that the choice of a *Pensionsfonds*' business strategy is influenced by its parent company's resources and capabilities. Therefore, our empirical results support the theoretical concept that newly founded subsidiaries choose a business strategy that utilizes the parent firm's resources and capabilities.

We perform a number of additional robustness checks to show that our results are stable. We use other definitions of the P_INVEST dummy variable. The original variable is coded as 1 if the parent company has more than 500 million euros invested in stocks, and 0 otherwise. We repeat the analysis with a dummy based on other cutoffs including 250 million euros, 1 billion euros, and the 25th, 33rd, and 50th percentile value of the distribution across our sample, and all qualitative results stay the same. We also drop the P_INVEST dummy from the analysis and the qualitative results for the other variables stay unchanged. Our results do not change either if we use a continuous definition for P_INVEST measuring the amount the parent company has invested in stocks. All our results also hold if we just use the parent company's equity capital in the year before the *Pensionsfonds* was established as a measure of its risk-bearing capacity instead of the P_CAPACITY variable that measures capital in excess of the regulatory requirement.¹³

CONCLUSION

Diversification decisions by established firms into new areas of business have far-reaching implications on future operations, growth, and profitability. Researchers have extensively examined the motivation of firms driving market entry, the timing of the market entry, and the choice of an entry mode. Firms can enter a new market by acquisition of an existing business, a greenfield start-up, or a combination of these two basic approaches. This article focuses on greenfield start-ups. It extends the entry mode literature by examining whether the business strategy choice of such start-ups is influenced by the characteristics of the parent firms. In other words, this article provides additional insights into *how* firms enter new product markets while holding the entry mode constant.

The arguments presented here are centered around the resource-based view of the firm. For firms having valuable internal resources and capabilities, it is desirable to utilize these resources and capabilities whenever possible. Therefore, the resource-based view predicts that a firm will choose its strategy to enter a new market based on its internal competencies. Firms entering a market by acquisition might enhance their knowledge-base by this acquisition, but firms entering a market by establishing a new subsidiary solely rely on their own resources, making it favorable to align the business strategy of the start-up with the firm's value-generating competencies. We therefore hypothesize

¹³ We also estimated a multinomial regression model. Multinomial regressions are estimated with the maximum likelihood estimator that is based on a numerical optimization. Since the estimation encountered numerical problems for some variable constellations, we prefer not to report the results from the other runs in great detail. However, for the variable combinations for which the algorithm reports estimates, these estimates are in line with the ANOVA results.

that newly founded subsidiaries choose a business strategy that utilizes the parent firm's resources and capabilities.

We use the new German market for *Pensionsfonds*' products as a test case for our theoretical concept. Since January 1, 2002, *Pensionsfonds* can be established as corporations providing occupational pension plans. So far, all *Pensionsfonds* were founded by other corporations and, hence, are newly founded subsidiaries. We conducted a comprehensive survey of German *Pensionsfonds* based on the strategic group literature. Using these survey data, we divide the *Pensionsfonds* in strategic groups and interpret the membership in one of these groups as the choice of the corresponding business strategy. We then use univariate tests as well as multivariate models to analyze the effect of the parent company's competencies on a *Pensionsfonds*' strategy choice. Our empirical results provide strong support for the hypothesis that the parent company's competencies determine the subsidiary's business strategy choice as predicted by the resource-based view.

The focus of our analysis lies on establishing the basic link between the resources of the parent firm and the business strategy choice of its subsidiary. To derive our empirical results, we used the German market for *Pensionsfonds*' products as a natural experiment. Let us now address the limitations of our research design and sketch a route for further research. We do not explicitly examine the determinants of market entry decisions, entry timing, or entry mode decisions. However, since there is little evidence on these research questions for insurance companies, there are interesting future research opportunities. Another limitation of our research is the small size of the German *Pensionsfonds* industry. Our sample covers 83% of the active *Pensionsfonds* that corresponds to 15 observations. While we establish the basic link between resources of the parent firm and the business strategy choice of its subsidiary, future research should focus on testing more refined concepts utilizing data from similar natural experiments in other countries or industries.

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