Effects of Dynamic Strategies on Capital Market Performance: A Test among Automobile Companies in Japan, North America and Europe

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*A comprehensive explanation of dynamic strategies in the event of changes in a firm's environment, competitive reactions, or a deterioration in a firm's competences and it's resulting economic impact is presented. The paper identifies three explanatory approaches (resource based explanations, market based explanations, competence based explanations) that make different assumptions on the rationality of decision-makers and the dynamics of the competitive environment. From the three explanatory approaches different options for obtaining a desired competitive position are derived and transformed into **single- and combined-implemented dynamic strategies, which unlike** other strategies - in the majority of cases static strategies, help in dealing with change and lead to superior performance over time. The concept of dynamic strategies is referred to capital market performance and is empirically tested through a **structural equation** model among 30 automobile companies headquartered in Japan, North America and Europe. Data collection is carried out by a preliminary content analysis of annual and quarterly reports as well as ad hoc information (2,550 documents) for five years (2004-2008). Our results support a positive correlation between capital market performance and use of some single- and combined-implemented dynamic strategies, but not for all strategy combinations as a whole.*

Introduction

Using strategies the direction and orientation of a firm are determined to gain sustainable competitive advantages and ensure long-term performance for the shareholders. However, current business strategies as cost leadership strategy, differentiation strategy (Porter, 1980 and 1985) or hybrid strategies of costminimal differentiation (Miller & Dess, 1993; Proff, 2000) are increasingly subjects to criticism. In particular, an efficient implementation of these - often viewed as "static" - strategies with a given financial and personnel budget (Porter, 1996) seems hardly possible today. Companies only rarely implement their strategies as planned before, because in the phase of implementation the external business environment and internal situation of a firm change frequently so that the assumptions taken as a basis in the strategy formulation process no longer apply (Feurer & Chaharbaghi, 1995; Lorange, 1998; Hax & Wilde, 2001). From such criticism many concluded that strategies as a conscious choice between alternative courses of action are fit for nothing. Instead of that more efficient-oriented management processes and key performance indicators should guide the actions of a firm (Kaplan & Norton, 2004).

But this criticism seems exaggerated. Especially in times of high uncertainty in planning a clear definition of the desired objectives is indispensable in order to give the firm a distinct direction of development (MacMillan et al., 2003). Although it can not be dismissed out of hand that both internal and external changes or disturbances, for example demand risks, economic and political crisis, competitive actions of new and existing competitors or an erosion of competences within a firm, impede a full implementation of strategies, strategic management can counter such disruptive factors in the phase of strategy formulation and implementation, however, with dynamic strategies. In a narrow sense dynamic strategies are actions and directives to supplement the organizational implementation of static strategies over time (Porter, 1991). The formulation of static strategies and supplementing their implementation by dynamic strategies can provide better guidance for strategic decisions as guidelines for efficient management processes.

Therefore, we will take a closer look at dynamic strategies within this paper, which are expected to help firms to purposefully deal with internal and external changes during the strategic processes. For this reason and towards theory development, a framework will be modelled to explain dynamic strategies. In other words, dynamic strategies will be structured in a first step. In a second step, adjustment hypotheses for the process of reaching a desired competitive position will be derived from three explanatory approaches within this framework, which will be translated into dynamic strategies. Finally, we will empirically test the effect of dynamic strategies on the capital market performance of firms.

Literature Overview: Dynamic Strategies

Unlike static strategies, dynamic strategies are not concerned with a superior competitive position at a given point in time, but with the evolution of a competitive position over time (Porter, 1991). Thus, dynamic strategy research makes the assumption of what Helmstädter (1995: 36) calls "real time": time that influences the attainment of a desired competitive position (North, 1994; Oster, 1994; Rajagopalan & Spreitzer, 1996).

A literature overview leads to a structuring of important research projects on dynamic strategies:

- Some studies of absolutely fundamental importance aim to lay down the basic principles of a dynamic theory of strategy (Porter, 1991a) or examine business performance over time (Warren, 1999), the achievement or maintenance of competitive advantages (Teece et al., 1997), or continuous strategic change processes over time (Brown & Eisenhardt, 1997).
- In addition, there are studies that aim to explain the external influences on dynamic strategies, for example, the impact of external shocks on profitability (McGahan & Porter, 1999). These studies create typologies of industry development (McGahan, 2000) or examine the impact of general demand behavior on dynamic strategies (Adner & Zemsky, 2002; Adner, 2002).
- Other research work on dynamic strategies is directed at contributing to a better understanding of the interactions between a firm and its competitors (Chen & MacMillan, 1992; Chen & Miller, 1994; MacMillan et al., 2003).

- A final group of research projects on dynamic strategies is seeking either explanations of competence development (Proff, 2004), i.e., the constant succession of competence upgrading and renewal (Baden-Fuller & Volberda, 1997; Volberda & Baden-Fuller, 1998; Volberda et al., 2001a, b; Crossan & Berdrow, 2003) or explanations of dynamic capabilities (Eisenhardt & Martin, 2000) and their development (Tripsas & Gavetti, 2000; Zollo & Winter, 2002; Zott, 2003).

Despite these promising approaches a theoretical explanation and empirical review of dynamic strategies are still missing. Dynamic strategies, as the "missing link between strategy formulation and strategy execution" (Kaplan & Norton, 2004: 10), should not be derived solely from individual practical experience. Rather, they require a comprehensive theoretical foundation, even if this inevitably involves a high level of abstraction. Particularly where advances in knowledge are only possible by considering a variety of possibilities, theories have to, according to Porter (1991a: 98), be created on the basis of structuring approaches or through the development of frameworks. Teece et al. (1997, S. 515) use such "frameworks [...] in order to facilitate theory development" (on this subject also Chen et al., 1992; Weigelt & MacMillan, 1988). Against this background, a theoretical examination and a first empirical test of dynamic strategies appear more important than ever.

## Comprehensive structuring and explanation of dynamic strategies

The implementation of a static strategy is generally understood from the dynamic point of view as a transition between an initial position at t_0 and a final position at t_1 (Stacey, 1993), because a dynamic model is used to examine the path of adjustment from one equilibrium to another. This notion corresponds to the "longitudinal study of the competitive positions and entry paths" by Bogner et al. (1996, also Caves & Porter, 1977; Barnett, 1997; Raff, 2000).

In the initial position t0 a starting (actual) competitive position exists. In the final position t1, considered ex ante, a desired (target) competitive position or, considered ex post, an achieved (actual) competitive position exists. The competitive position reached may correspond to the desired competitive position (implementation of a static strategy) or may be different (inadequate implementation of a static strategy). The transition corresponds to the processes of starting and developing a business which cannot be considered as a 0-1 event (for example, Caves & Porter, 1977; Markides, 2000). In this transitional phase, the actions in operation are not only those of organizational and financial implementation, which are assumed by the static strategy theory as efficient and are therefore not considered in further detail (Porter, 1980). Adjustment processes are also going on in which external and internal disruptive factors such as changes in the wider country environment (given by company-based explanations), competitive reactions in the immediate competitive environment (given by competitor-based explanations) and a possible relative deterioration in corporate competences of a firm have to be dealt with (given by competence-based explanations, Volberda et al., 2001b). Figure 1 summarizes the basic logic of dynamic strategies.

To be able to draw conclusions about these substantive adjustment processes, behavioral or adjustment hypotheses (H) have to be introduced that characterize the adjustment process over time. These can be derived from the three explanatory approaches and can be translated into dynamic strategies (DS) based on adjustment hypotheses. Due to lack of space these transformations will be presented here in short (for a complete transformation, Proff, 2007).

Unexpected changes in the country environment will change the results of all market participants in equal measure. However, there is no reason to assume that all firms will also respond to these changes in the same way. Structural change and external shocks may be processed differently by individual firms. Bogner et al. (1996) therefore presume, for example, based on Tushman & Anderson (1987), that the costs of adjusting to external shocks and structural change will vary from firm to firm. The achievement of a desired competitive position over time therefore depends on a firm's ability relative to competitors to adjust to environmental changes. Adjustment costs in the event of environmental changes demonstrate the economic efficiency of adjustment strategies (Windsperger, 1991). Basically, the faster (compared with competitors) the adjustments are effected,

Fig.1: Basic logic of dynamic strategies
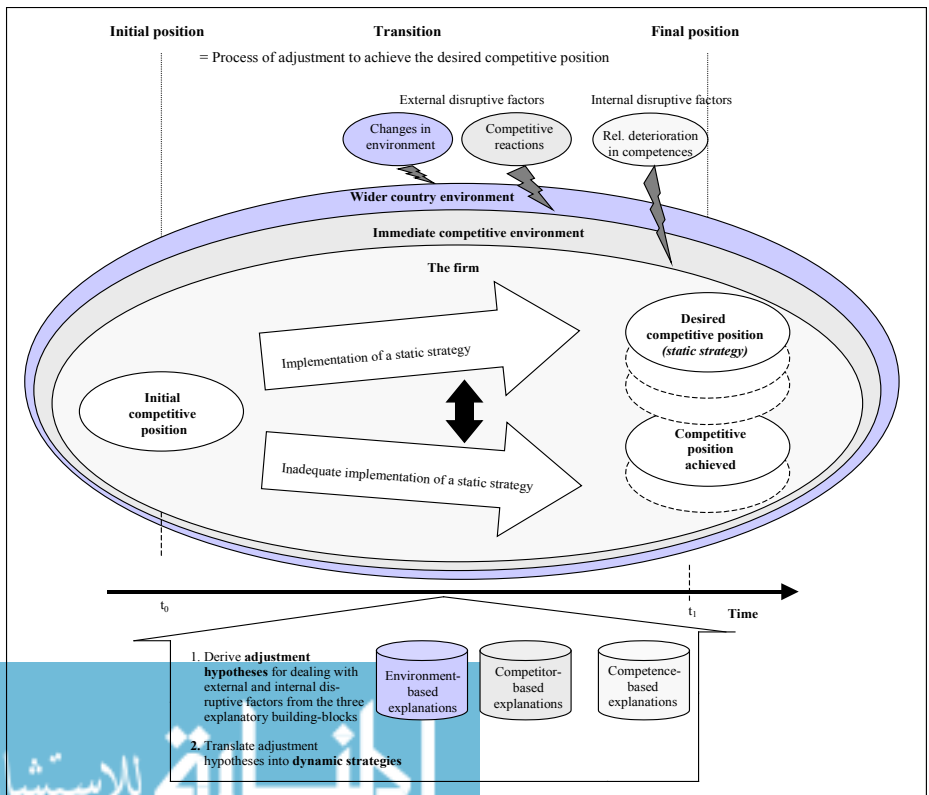
the smaller the adjustment costs will be (Windsperger 1991; Shay & Rothaermel, 1999). In the case of external shocks such as natural disasters or economic crises, a quick reaction is unavoidable, demands an adjustment and justifies adjustment costs. With the very much slower structural change and technological shocks it is more important to weigh up the benefits and costs of an adjustment. The environment-based explanations therefore offer two adjustment hypotheses which complement the attempts to reach a desired competitive position with dynamic strategies:

H1: The shorter (compared with competitors) the reaction times when external shocks, structural change and technological shocks occur, the more likely it is that the desired competitive position will be reached.

H2: The greater (compared with competitors) the level of experience with external shocks, structural change, and technological shocks, the more likely it is that the desired competitive position will be reached.

These adjustment hypotheses establish the first two dynamic strategies: DS 1: systematic risk management and DS 2: systematic crisis management.

While the adjustment hypotheses of the environment-based explanation focus on the reduction of unavoidable costs, the adjustment hypotheses from competitor-based explanations relate to the distribution of economic profits in the oligopolistic struggle. This can also be explained by an economic model. In the new industrial organization within the framework of the market-based view, multi-period games are used to explain the fact that the achievement of the desired competitive position depends on whether the actions of the firm are successful. This can be assumed if no reactions are expected from competitors, i.e., when the reacting firms will lose compared to the initial position (Chen & MacMillan, 1992; Chen & Miller, 1994). Consequently, the achievement of the desired competitive position can only be positively influenced if it is not possible for competitors to react to the actions of the firm under consideration because of a restriction on their scope of action that already exists. In the extreme case, competitors will have no strategic alternatives whatsoever (no "strategy set") available to them (Weigelt & MacMillan, 1988: 32).

Dynamic multi-period games are very complicated as a consequence of the many options and imperfect information position (for example, Weigelt & MacMillan, 1988: 27). They can only be resolved in the simplest case under restrictive assumptions. Therefore, it is necessary to restrict competitors' potential strategic space and thus their scope of action. Since game theory responds very sensitively to changes in the assumptions (Teece et al., 1997), no adjustment hypotheses on the development of competitive positions are applied here unless they have already been empirically tested and are robust (Chen & MacMillan, 1992; Chen et al., 1992):

- Chen & MacMillan (1992) show that high irreversibility of the actions of the acting firm due to investments with high sunk costs will reduce the reacting firms' uncertainty as to the seriousness of the selected actions. The fact that the actions of the acting firm are binding on itself restricts the actions of reacting firms.

- Studies by Ghemawat (1991) or Porter (1991a) prove that a competitive response is more likely, the more competitors have entered into binding commitments (to react) and the more they are therefore seen to be retaliating. This is to be expected in particular when the market is very important to the firms under attack (Chen et al., 1992) and promises rent potentials. Binding commitments to react arise, for example, from investments made in the previous period.

- Weigelt & MacMillan (1988) show that a reaction is unlikely if the reacting firms are very willing to cooperate with the acting firm. Moves to cooperate with competitors thus help the firm under consideration to achieve its objectives.

The competitor-based explanations thus account for a further three adjustment hypotheses for the process of reaching a desired competitive position through dynamic strategies:

H3: The more irreversible the actions of an observed firm are, the more likely it is that the desired competitive position will be reached.

H4: The less the reacting firms enter into binding commitments to react, the more likely it is that the desired competitive position will be reached.

H5: The greater the willingness of the reacting firms to cooperate with the acting firm, the more likely it is that the desired competitive position will be reached.

These adjustment hypotheses establish another three dynamic strategies: DS 3: efficient price premium management, DS4: coordinated multi-market management and DS 5: systematic cooperation management.

The starting point of competence-based explanations is competence-building, in other words, adding value to input resources to make them into competences. This competence-building process has to meet three main requirements in a business unit: 1. it must create value in the market, 2. tradability and imitability must be limited, and 3. there must be a fit between competitive advantages and the dynamics of the business unit's competitive environment (for example Reed & de Fillippi, 1990; Barney, 1991; Proff, 2004). Like all economic goods, however, competences can lose their value in the competitive arena (Rumelt, 1984; McGrath et al., 1995). Value creation will decline, tradability and imitability emerge, and the fit with the environment will deteriorate against the background of changes in the firm's (internal and external) competence-impacting environment (1. changes in the firm-specific resource base, 2. changes in the managers' perception of the competences' value creation, 3. involuntary diffusion of knowledge, and 4. changes in the firm-specific environmental dynamics, Tripsas & Gavetti, 2000; Eisenhardt, 2001; Proff, 2004). The competence-based explanations of dynamic strategies produce two further adjustment hypotheses for the process of achieving a desired competitive position.

H6: The closer the constant succession of upgrading and renewal of competences is to the ideal, the more likely it is that the desired competitive position will be reached.

H7: The more the renewal of competences increases in importance over time compared to upgrading, the more likely it is that the desired competitive position will be reached.

These adjustment hypotheses establish another two dynamic strategies: a management for developing competences in the horizontal competition (with direct competitors – DS 6) and in the vertical competition (between manufacturers and suppliers – DS 7). Thus, a total of seven adjustment hypotheses and dynamic strategies can be derived from the three explanatory approaches.

Research Questions and Hypotheses

To test the seven adjustment hypotheses and therewith dynamic strategies as well as their influence on performance measures we accomplished an exploratory investigation of possible effects between dynamic strategies and capital market performance. The relationship between dynamic strategies and capital market performance was carried out from the theoretical background that the implementation of all dynamic strategies within a company ultimately should lead to a higher performance, in form of shareholder value, than only in short term profits. From this point of view, our empirical analysis based on the following research question: Are there any relations between the degree of realization of dynamic strategies and capital market performance in corporate context?

Given the outlined dynamic strategies we arranged two different models to test hypotheses about the effects on capital market performance. Because all formulated dynamic strategies intend to improve the competitive position of a company over time, we assumed that all seven dynamic strategies have a continuous positive influence on capital market performance. Thus, our first model indicated a positive relationship between single-implemented dynamic strategies and capital market performance (model 1: H1-H7). According to the explanation of dynamic strategies, we aggregated the seven dynamic strategies in a second model to three different strategy sets: systematic risk management (DS 1) and systematic crisis management (DS 2) as environment-based dynamic strategies (Set 1), efficient price premium management (DS 3), coordinated multi-market management (DS 4) and systematic cooperation management (DS 5) as competitor-based dynamic strategies (Set 2) as well as a management for developing competences in the horizontal (DS 6) and vertical (DS 7) competition as competence-based dynamic strategies (Set 3). The aggregation of the seven dynamic strategies to three strategy sets was conducted under the assumption that less single-implemented, but rather combined-implemented dynamic strategies can exercise the strongest relation to capital market performance. Thus, in the course of environment-based dynamic strategies we assumed that a systematic risk management can minimize the response time (compared to competitors) to external shocks and structural and technological changes. But we saw also a sole implementation as not sufficient for businesses to respond fully to disruptive changes and unpredictable crisis. Rather, a combination of the systematic risk management and systematic crisis management was seen as an adequate environment-based strategy set (DS 1 & DS 2) to achieve a desired competitive position in the presence of external changes. According to the environment-based strategy set we also derived the competitor-based strategy set. We assumed that a sole focus on one of the three competitor-based dynamic strategies (DS 3, DS 4 and DS 5) can not be worthwhile for firms in order to achieve a desired competitive position over time. This because e.g. a

single-implemented systematic cooperation management can only protect firms from value-destroying co-operations, but falling price-premiums and rampant overcapacity caused by irreversible acts (in the meaning of large investments in products and markets) could not be prevented. In this respect, the combination of the three competitor-based dynamic strategies in one strategy set (DS 3 & DS 4 & DS 5) was suggestive to minimize erroneous trends in competition for market share and profits as much as possible. The combination of the two competence-based dynamic strategies to a third strategy set (DS 6 & DS 7) was also deemed to be necessary, as the development of competencies need to take place in the horizontal competition (with direct competitors) as well as in the vertical competition (between manufacturers and suppliers) simultaneously. A single implementation of competence-based dynamic strategies would lead otherwise to a competence-drain in one of the two competition arenas.

Against this background, we supplemented our first model with three additional hypotheses in a second model:

H8:   The larger the final degree of combined-implemented environment-based dynamic strategies (Set 1: DS1 & DS2), the more likely it is that firms achieve a higher capital market performance.

H9:   The larger the final degree of combined-implemented competitor-based dynamic strategies (Set 2: DS3 & DS4 & DS 5), the more likely it is that firms achieve a higher capital market performance.

H10: The larger the final degree of combined-implemented competence-based dynamic strategies (Set 3: DS6 & DS7), the more likely it is that firms achieve a higher capital market performance.

Since all three derived strategy sets should strengthen the competitive position of a firm over time, following model 1 we adopted a positive effect between these three strategy sets and capital market performance (model 2: H8-H10). Fig. 2 summarizes the overall hypotheses system of our exploratory study.

Research Method

Sample: Our field of investigation was limited to the automotive industry and therefore automotive manufacturers as well as suppliers. A closer examination of automobile firms was seen desirable for two reasons: first, the automotive industry stands vis-à-vis environment-, competition- and competence-relating changes more than almost all other industries (Proff & Proff, 2008). Second, a focus on one relevant sector can minimize possible restrictions that may result from industry-specific standards, market conditions and competitive behaviour (Sirmon & Hitt, 2009). Our final study sample included a total of 30 automotive firms (headquartered in Japan, North-America and Europe). The selection of automotive companies from the population took place on the basis of two different criteria: the company size by largest revenue and production volume (criterion 1) and at least one stock exchange listing (criterion 2). While the selection by revenue and production volume reflected the intra-industry importance of the units, the second

criterion was chosen necessarily in light of evaluating capital market performance. The relevant revenue or volume information were extracted from company annual reports of 2008.

Dependent variable: We chose the market-based measure "Relative Total Return to Shareholders (RTRS) as an adequate scale unit for the impact of dynamic strategies on capital market performance (McTaggart & Gillis, 1998). The RTRS represents on the one hand, if a company is able to create internal value for shareholders and adequately reflects the valuation-perspective of various actors on the capital market. On the other hand RTRS indicates a direct connection to dynamic strategies and is considered free from balance sheet changes of the companies (Savarese, 2001). The original RTRS was weighted with the benchmark MSCI World Index, which can be regarded as a world-wide index of share price development. The RTRS-calculation was carried out on the basis of five years (t: 2004-2008). Thereby, possible macroeconomic developments, such as different growth rates, currencies or interest rate levels, and specific product-lifecycles of the car companies within our sample could be eliminated. Necessary information to calculate the RTRS and MSCI World Index were selected from the data bank Thomson Reuters Datastream.

Explanatory variable: The operationalization of the seven dynamic strategies in the meaning of their degree of realization was carried out by a preliminary content analysis (Krippendorff, 2004) of annual and quarterly reports as well as ad hoc information (documents: n = 2,550) for five years (t: 2004-2008). Under this approach we formed conceptual features that reflect the different dynamic strategies and then we quantitatively determined the number of mentions of this characteristics in publicly available documents

Fig. 2: Hypotheses of the exploratory study
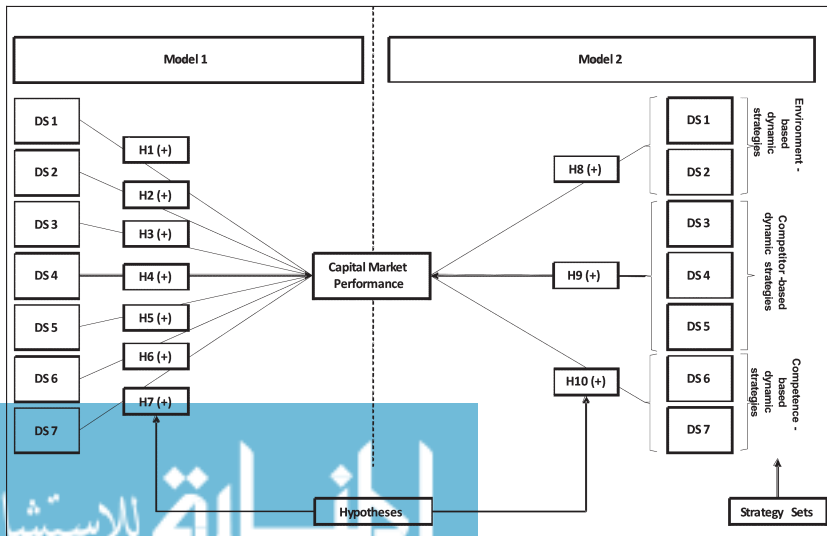
of the investigation units. The determination of the final degree of realization was proceeding in that manner that the total sum of each identifiable characteristics in the underlying documents were put in relation to the maximum number of the a priori formed characteristics of dynamic strategies. This approach based on the assumption that with an increasing number of indications in the documents capital market actors can more easily identify dynamic strategies and can integrate them into their own valuation on the capital market (for content analysis, see also appendix).

Control variables: To account for the effects of control variables, we included firm age, firm size and firm specification as control variables, because research suggests that these factors can affect performance outcomes (for firm size Haveman, 1993; Zajac et al., 2000). We saw the number of years the firms have been in operation as an adequate proxy indicator for firm age. Firm size was calculated as a logarithm of the number of employees. For firm specification we used two dummy variables: automotive manufacturer and automotive supplier.

Time lags of effects: Because the exact time lags between our variables are either unknown or impractical in terms of measurement, we considered the effects from an average view. Our time assumptions made about strategy formulation, implementation and the final effects looked thereby as follows: We assumed that the formulation and implementation of dynamic strategies is an ongoing process within our time horizon of five years. Thus, we could expect that a high average level of implemented dynamic strategies within five years should result in a higher average capital market performance in the same five periods. Under this approach we avoided a definitely, but so far unknown, specification of the time lags between our constructs.

Analytical Approach: To verify the hypotheses (H1-H10) structural equation models were used. Structural equation models in general belong to the group of multivariate analysis methods. They allow an assessment of ex ante theoretically or logically formulated hypothesis systems. Unlike regression analysis, which appreciate unilateral effects between different variables in a single statistical procedure, however, structural equation models, include several statistical procedures in a single comprehensive approach and can examine complex structures between manifest and latent variables as well as causal relationships (Reinartz et al., 2009). The inclusion of structural equation models were suggestive, because we could operationalize the degree of realization of dynamic strategies as manifest variables (indicators in narrow sense) and the dynamic strategies as well as capital market performance as latent variables. Furthermore we saw the opportunity to statistically derived the relationships between these variables in one closed procedure. To determine possible effects between dynamic strategies and capital market performance we prepared two different causal models, according to the hypotheses (H1-H10). The first model reflected a simple effect structure between the single-implemented dynamic strategies and the capital market performance measure RTRS (H1-H7), equivalent to an ordinary regression analysis. In the second model we combined the dynamic strategies in three strategy sets as latent variables according to the hypotheses (H8-H10). The mathematical resolution of the structural equation models

followed the partial-least-squares approach (Henseler et al., 2009). Due to the absence of a global quality criterion for reliability and validity of structural equation models we tested both model specifications using multiple reliability and validity measures, which were finally assessed in sum. For the test of significance the necessary t-values were approximately determined using the bootstrap resampling method. Effects in each case were tested on a 5% significance level.

Results

The test of our first model indicated that the hypotheses H1, H4 and H7 had to be rejected. Contrary to the initial assumption of a consistent positive influence on capital market performance, dynamic strategies as a systematic risk management (DS 1), coordinated multi-market management (DS 4) and the management for developing competences in vertical competition (DS 7) revealed only a negative effect on RTRS. In comparison to the coordinated multi-market management with a path-coefficient equal to –0.103 and the management for developing competences in the vertical competition with –0.058 a systematic risk management indicated with –0.323 the strongest negative effect on RTRS. All relationships were highly significant at a 5% level (t-value: DS 1 = 5.952, $p < 0.05$; DS 4 = 3.188, $p < 0.05$; DS 7 = 2.962, $p < 0.05$). In this respect, higher degrees of realization of these dynamic strategies went along with a lower capital market performance of the sample entities.

On the other hand the hypotheses H2, H3, H5 and H6 could be confirmed. Path-coefficients of 0.590, 0.166, 0.508 and 0.146 revealed that a systematic crisis management (DS 2), efficient price premium management (DS 3), systematic cooperation management (DS 5) and management for developing competences in the horizontal competition (DS 6) affected consistently the level of RTRS. In particular, the systematic crisis management and systematic cooperation management unfolded these strong positive effects on RTRS with path-coefficients higher than 0.400, while the efficient price premium management and the management for developing competences in the horizontal competition indicated only moderate impact intensities. In this context, any effects could also be viewed on a 5% level as highly significant (t-value: DS 2 = 20.371, $p < 0.05$; DS 3 = 3.995, $p < 0.05$; DS 5 = 12.802, $p < 0.05$; DS 6 = 3.353, $p < 0.05$). Accordingly, higher degrees of realization of the dynamic strategies DS 2, DS 3, DS 5 and DS 6 significantly reflected a higher capital market performance of the sample units.
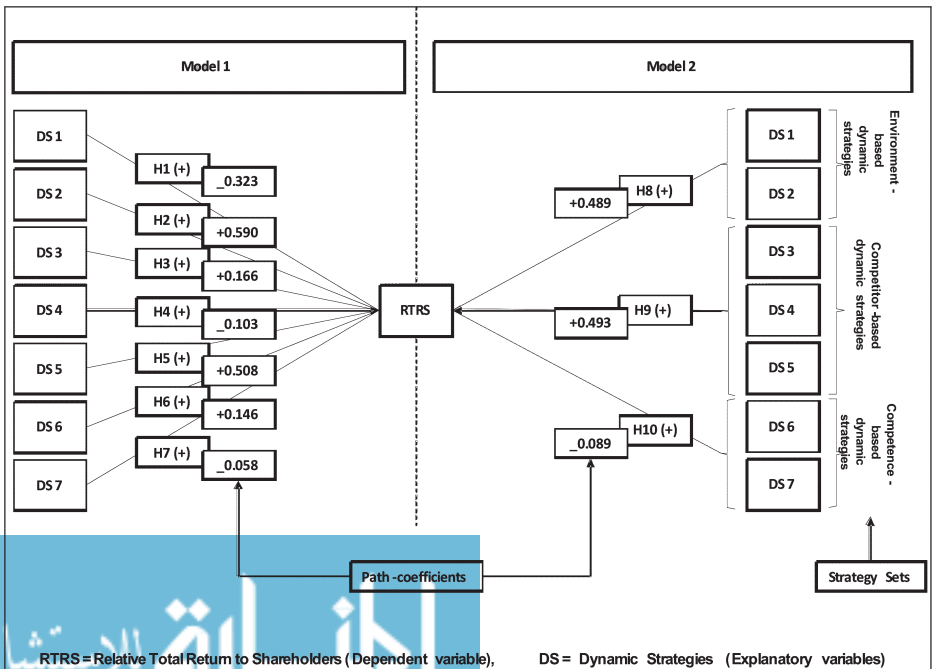
In accordance with the direction of the path-coefficients in our second model the hypotheses H8 and H9 could be confirmed. Path-coefficients of 0.489 and 0.493 signalled positive relationships between the environment-based dynamic strategies (DS 1 & DS 2) as well as competitor-based dynamic strategies (DS 3 & DS 4 & DS 5) and capital market performance. The effect intensity of both strategy sets was nearly identical on values of 0.4. Both positive relationships occurred highly significant (t-value: DS 1 & DS 2 = 5.437, $p < 0.05$; DS 3 & DS 4 & DS 5 = 7.379, $p < 0.05$). Insofar, the implementation of environment-based and competitor-based dynamic strategies caused a higher capital market performance of the sample entities.

As distinguished from these results, the hypothesis H10 and hence a positive relationship between competence-based dynamic strategies and RTRS had to be rejected. With a path-coefficient of −0.089 only a weak, but negative effect could be established. Because of the significant results (t-value: DS 6 & DS 7 = 2.048, p<0.05) it could be assumed that a higher degree of realization of combined competence-based dynamic strategies lead to a poor capital market performance. Figure 3 summarizes all results of our exploratory study.

Conclusions and Future Research

Our study provides first insights about the influences of theoretically derived single- (model 1) and combined-implemented (model 2) dynamic strategies on capital market performance in the meaning of RTRS. Our results show that in the context of single-implemented dynamic strategies only a systematic crisis management (DS 2), effective price premium management (DS 3), systematic cooperation management (DS 5) and management for developing competences in the horizontal competition (DS 6) affect significantly the capital market performance, while on the other hand, a single-implemented systematic risk management (DS 1), coordinated multi-market management (DS 4) and management for developing competences in the vertical competition (DS 7) do not unfold their full potential. Only through a systematic and especially combined implementation of dynamic strategies in the sense of environment-based (DS 1 & DS 2)

Fig. 3: Results of the exploratory study

RTRS = Relative Total Return to Shareholders (Dependent variable),   DS = Dynamic Strategies (Explanatory variables)

and competitor-based (DS 3 & DS 4 & DS 5) dynamic strategies a higher capital market performance can be achieved. Notwithstanding, it appears theoretically correct to implement a management for developing competences in the horizontal and vertical competition (DS 6 & DS 7), our results confirm against it a negative correlation between competence-based dynamic strategies and capital market performance.

Although the identified effects of dynamic strategies on capital market performance need to be well-grounded in their mode of action and also be tested in a larger sample size as well as other industries in near future, our results reveal the potential for implementing dynamic strategies in a business context. From the objective of maximum shareholder value a systematic and combined implementation of dynamic strategies can therefore be regarded as an adequate action guideline for automobile companies. On the one side, dynamic strategies can minimize possible performance discounts. On the other side, they can cause sustainable added value. Especially against the background of a below-average performance of automobile companies in the capital market to date, dynamic strategies should become more important in the context of strategic management - not only in the course of automotive firms.

Appendix

Content Analysis: Explanatory Notes

The progress of our content analysis, which is generally seen as an empirical method for a systematic, inter-subjective and comprehensible description of contextual and formal attributes of communications (e.g. Krippendorff, 2004), followed exactly four different phases: (1) Planning, (2) Development, (3) Testing and (4) Application.

(1) Planning of the content analysis

In the planning phase, the required analytical material and the number of raters were specified. The analytical material was limited to annual and quarterly reports and ad hoc reports of the investigation units. The restriction was made for two reasons: first, annual and quarterly reports as well as ad hoc reports depict a high quality of information caused by statutory regulations and controls, so that company outsiders get a true and fair (objective) portrait of the corresponding asset, financial and earnings situation as well as future development prospects of a firm. Second, they are largely available from information sources for free, so that every single capital market actor can get a complete picture of a relevant firm. Against this background surveys and interviews dropped out as empirical methods. In contrast to available company documents, surveys and interviews detect only non-binding, hardly representative, more short-term and spontaneous strategy view of a firm. Thus, securing the reliability and validity of the investigation was seen in using company documents. For the selection of the raters, a number of two raters was deemed sufficient. In addition to the authors one non-scientific person was involved. This approach avoided subjective patterns of interpretation by the authors and prevents the reliability of the content analysis.

(2) Development of the content analysis

As part of the development phase the heart of the content analysis, the categorisation

system, was developed to extract on the one hand text-related characteristics of dynamic strategies, on the other hand to structure and measure the frequency of these characteristics within the corporate documents using a pre-determined classification system. For purposes of classification, the seven dynamic strategies have been defined as generic terms. The operationalization of the various generic terms was however carried out using sub-categories. Each sub-category included relevant pre-determined (key) words which reflected the generic terms and thus dynamic strategies. The classification system and the (key) words were thereby used as guidelines for the raters. Raters should record and count only those words within the underlying corporate documents that were related to areas of dynamic strategies. Through the identification and the frequency of the (key) words the raters could gauge the specific degree of realization of dynamic strategies in the context of the investigation units.

(3) Testing the content analysis

In the subsequent test phase the categorisation system was checked by two raters using test ratings. To facilitate the mapping of the single ratings to sub-categories and thereby to the generic terms synonyms were appropriate for each (key) word within the framework. Furthermore, it was determined that the raters should also read strategy relevant sections of the corporate documents completely. This, because through this procedure content equivalent text-passages could take into account as well.

(4) Application of the content analysis

In the application phase, raters identified the characteristics of dynamic strategies using the categorisation system in two independent rounds. The second round had take place four weeks after the first rating to ensure the temporal stability of the ratings. For statistical coverage of the content analysis inter-rater-reliability and intra-rater-reliability with the statistical coefficient in form of Cohen's-Kappa were used for measuring the degree of agreements between the two raters. Value higher than 0.7 indicated a satisfactory statistical reliability and also a sufficient temporal stability of the respective ratings.

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