

**STRATEGIC RESEARCH AND PERFORMANCE OF SMES\***

**Theo J. B. M. Postma**  
University of Groningen  
*t.j.b.m.postma@bdk.rug.nl*

**Peter S. Zwart**  
University of Groningen  
*p.s.zwart@eco.rug.nl*

**ABSTRACT**

*The aim of this article is to outline a rich/holistic conceptual framework with regard to strategy and performance in SMEs. The conceptual research model consists of the following building blocks; the internal environment and distinctive competencies, the external environment and critical success factors, the sustainable competitive advantages and the strategic conditions, and the owner/manager. The mutual relationships of these building blocks and their relationship with performance are discussed. In this way, we expect to obtain a better (theoretical and practical) insight in the strategic behavior of SMEs.*

**INTRODUCTION**

Small and medium-sized enterprises (SMEs) play an important role as a job creator and innovative engine in the economy. Increased competition has raised the competitive pressure on SMEs. Adaptation to changing environments and survival and success of firms seems to be contingent on management's capacities to adjust the structural and strategic context in organizations (Burgelman, 1991); in order to assess these kinds of relationships Burgelman suggests to use 'rich theories' of organization (269).

An extensive body of literature is concerned with factors influencing the performance of SMEs (Gibb & Davies, 1990). Gibb and Davies suggest four general and distinctive approaches; *entrepreneurial personality*: research in this field links the personal characteristics of the entrepreneur/manager with the performance of the company; *organizational development*: this research contains stage of growth models, approaches emphasizing the pursuit of non-financial objectives, approaches taking into account family influences, and approaches focusing on the influence of networks and personal contacts; *functional management skills*: this kind of research emphasizes the need for the smaller firm to adopt a more formalized approach to such activities as strategic planning and the installation of effective control systems; *sectoral economics*: research within this approach places emphasis on industry and locational aspects. Although Chaston and Mangles (1997)

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indicate that these four approaches have all made significant contributions to our understanding of the impact of management processes and company performance within these firms, they, however, also conclude that these approaches unfortunately do not generate a generalized technique (or model) for predicting the growth potential of SMEs with any degree of consistency. Nootboom (1994: 332) notes that earlier research on SMEs was characterized by trying to establish partial relationships (e.g. between personal characteristics of entrepreneurs and the success/failure of their firms). He suggests a research approach of SMEs that allows for different conditions, different actions, and different organizational outcomes (Gartner, Star, & Bhat, 1998). Dess, Lumpkin, and Covin, (1997), indicate that prior research suggests that multivariate combinations of strategy, structure, and process variables may be better predictors of firm performance than bivariate combinations. Also, Roper (1998) stresses that relationships between SMEs performance, entrepreneurial characteristics, firms' operating environment, and their strategic and organizational choices must be simultaneously taken into account. To this aim, he develops and tests a broad model of the different relationships, by using logit regressions as an instrument of analysis. This kind of research shows that the complexity of the problem field and the various interrelationships between variables (especially the indirect relationships) demands integrated approaches.

An integrated framework (integrating various perspectives and variables) is needed to capture the complexity of this problem domain. Research into only partial relationships does not add very much to the existing knowledge base. Miller (1981: 3) already made a plea for research at the complex interaction of many variables at the same time, as they interact over time and are manifested by a stream of decisions and events, in order to gain insights into the determinants and consequences of the strategies. The aim of this article, therefore, is to outline a conceptual rich/holistic framework with regard to strategy and performance in SMEs, which takes into account different internal and external environmental characteristics. In the next few sections this framework will be introduced, elaborated and discussed.

### **DETERMINANTS OF STRATEGY**

This article concentrates on strategy and performance. Since the seminal publications of Chandler (1962) and Ansoff (1965), this relationship is a much researched and discussed subject. In the following an inside-out strategic perspective (the resource-based view, theory of entrepreneurship/entrepreneurs) and an outside-in strategic perspective (contingency theory, industrial organization) will be sketched. The discussion starts with the resource-based view (Wernerfelt, 1984), which explains from an inside-out point of view the choice of strategies (of SMEs). The resource-based view is expressly concerned with the rent-generating heterogeneous firm and its origin, function, evolution, and sustainability (Mahoney & Pandian, 1992). The possibilities of a firm to gain a so-called 'rent' (above normal profit) will be influenced by the attractiveness of an industry and the possibilities to gain sustainable competitive advantages (Grant, 1991). A sustainable competitive advantage (e.g. low costs/prices, better service, faster delivery, innovativeness) can be described as the development of a unique product market combination, by using resources and taking specific strategic decisions concerning the business. This is reflected in strategic choices and the ways they are established. Unique resources or combinations of resources are sometimes referred to as 'distinctive competencies' (Barney, 1997). Distinctive competencies can be categorized as uncodified institutional knowledge (in networked people; in embedded processes) and sunk costs and irreversible investments (investments in reputation; in legal protection; in specialized assets) (Van der Heijden, 1996: 63). The resource-based view is for our purpose useful, because it stresses the basic relationships of our integrative framework.

Figure 1 shows the relationships between distinctive competencies, sustainable competitive advantages, strategies, and rents (see also Bamberger, 1994; Fletcher & Hardill, 1995; Love

Stephen, & Paterson, 1995). This figure indicates a number of basic relationships of our research model.

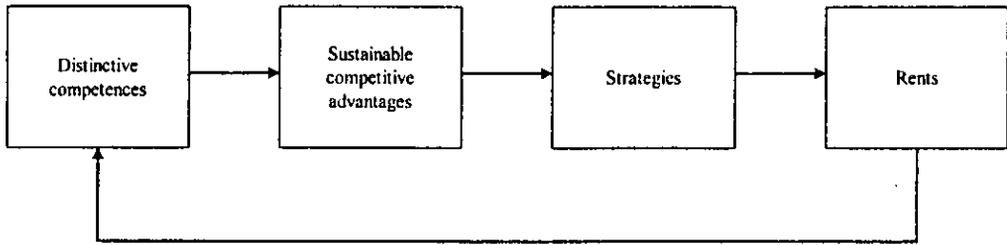


Figure 1 : Resource based model (adapted from Grant, 1991)

Another set of factors that influences the sustainable competitive advantages of a firm are the external environmental factors (related to industrial organization theory). For the analysis of the external environment, especially the industry- and market characteristics, different approaches are available (structure-conduct-performance model; Porter's five forces model, PEST-analysis, scenario-analysis, etc.). The set of relevant factors from the external environment is sometimes referred to as critical success factors. Bamberger (1994: 138) distinguishes the following groups of critical success factors; demand (customer needs; heterogeneity of demand; price elasticity; stability of demand), industry- and market structure (concentration, behavior of competitors; entry/exit barriers), and technology and dynamics (capital intensity; economies of scale; learning curve effects). The prevalence and importance of certain critical success factors depend on the stage of the life cycle (evolution) of the firm and the development of its industry. Start-ups have other industry- and market conditions compared to older more established companies.

The relevant external environment, critical success factors, internal environment, distinctive competencies, and sustainable competitive advantages are related as shown in Figure 2.

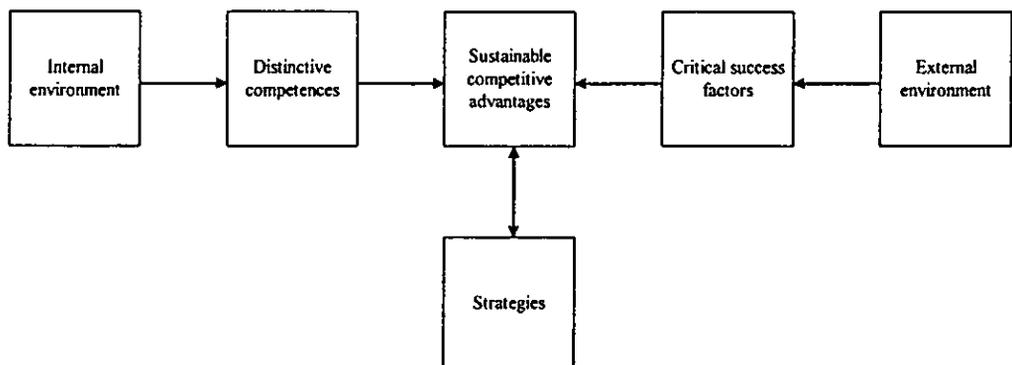


Figure 2: Factors that determine strategies (based on Bamberger, 1994)

Figure 2 is the basis for the development of the research model in the next section. This figure shows that sustainable competitive advantages are basically the result of at the one hand a set

of distinctive competencies (e.g. embedded processes, capabilities, knowledge or technology) that are derived from the internal environment and the other hand critical success factors (such as market position, cost conditions in industry, market demand) which are determined by the external environment. Sustainable competitive advantages drive the strategy (e.g. differentiate in certain ways or choose for scale effects) and vice versa. Note that strategy determines the performance of the firm in terms of success and failure (see next section).

### **DEVELOPMENT OF THE CONCEPTUAL RESEARCH MODEL**

Strategic management literature suggests that integrated approaches of strategy, structure, and other variables may be better predictors of firm performance than bivariate combinations (Dess, Lumpkin, & McGee, 1999: 97). Moreover, Dess et al. (1997: 691) indicate that research that takes into account a configurational approach outperforms former (partial) research. One of their main findings is that in general entrepreneurial strategy making was most strongly associated with performance when it was combined with both the appropriate strategy and environment conditions. They also indicate that more research is needed to consider these links. In this article, we aim specifically at such integrated models in SMEs. SMEs are special because of their size, growth potential, and the specific role of the entrepreneur/top management. Nooteboom (1994) suggests a comprehensive model of SMEs, in which internal characteristics (such as personal characteristics of the entrepreneur, team characteristics, goals), external characteristics (such as technology, market features, institutions, life cycle stage), conduct characteristics (such as strategy, product, price, knowledge acquisition, external networks), and performance (profit, growth) are interrelated. Also, Chrisman, Bauerschmidt, and Hofer (1998) outline an integrated model of critical variables affecting new venture performance with respect to the entrepreneur (personality characteristics, values and beliefs, skills, experience and education, behaviors and decisions), industry structure (structural characteristics, industry rivalry, nature of buyers and suppliers), resources (intangible and tangible assets), internal environment (organizational structure, systems and processes, ownership structure), strategy (planning and strategy formulation, goals and objectives, strategic direction, entry strategy, competitive weapons, segmentation, scope, investment strategy, political strategy), and performance. In sum, integrative approaches are likely to offer a better understanding and explanation of performance inhibiting or enhancing phenomena within the problem domain of SMEs, compared to partial models (see also Boone, De Brabander, & Van Witteloostuijn, 1995). The proof of the pudding is of course in the eating. Empirical tests of these so-called holistic approaches, which indicate the applicability of integrated models, now show up (Pelham & Wilson, 1996; Borch, Huse, & Senneseth, 1999; Flamholz & Aksehirli, 2000).

Based on the literatures from different research fields and various integrative approaches, we propose the following conceptual research model (Figure 3):

The main building blocks of this model are the internal environment and distinctive competencies, the external environment and critical success factors, the sustainable competitive advantages and strategy, and the entrepreneur/manager. In SMEs, an important determinant of specific resources or distinctive competencies, sustainable competitive advantages, and strategies is the personality (characteristics, reputation, knowledge, relation networks) of the entrepreneur/manager. The entrepreneur/manager has a pivotal role in perceiving and determining what is distinctive and strategic. (S)he as the main controlling actor in SMEs is mainly responsible for the development and management of distinctive competencies (e.g. R&D-capabilities) and the way strategies are established (process) and eventually chosen (such as a differentiation strategy). The various building blocks, their mutual relationships and their relation to performance are visualized in Figure 3. The relationships between the building blocks are described above. The feedback loop from

performance to internal environment and entrepreneur/manager indicates that success (e.g. profit) or failure (e.g. loss) of the firm has repercussions for the input and development of resources and the decisions made by the entrepreneur/manager. Each of the building blocks will be described in the following sub sections.

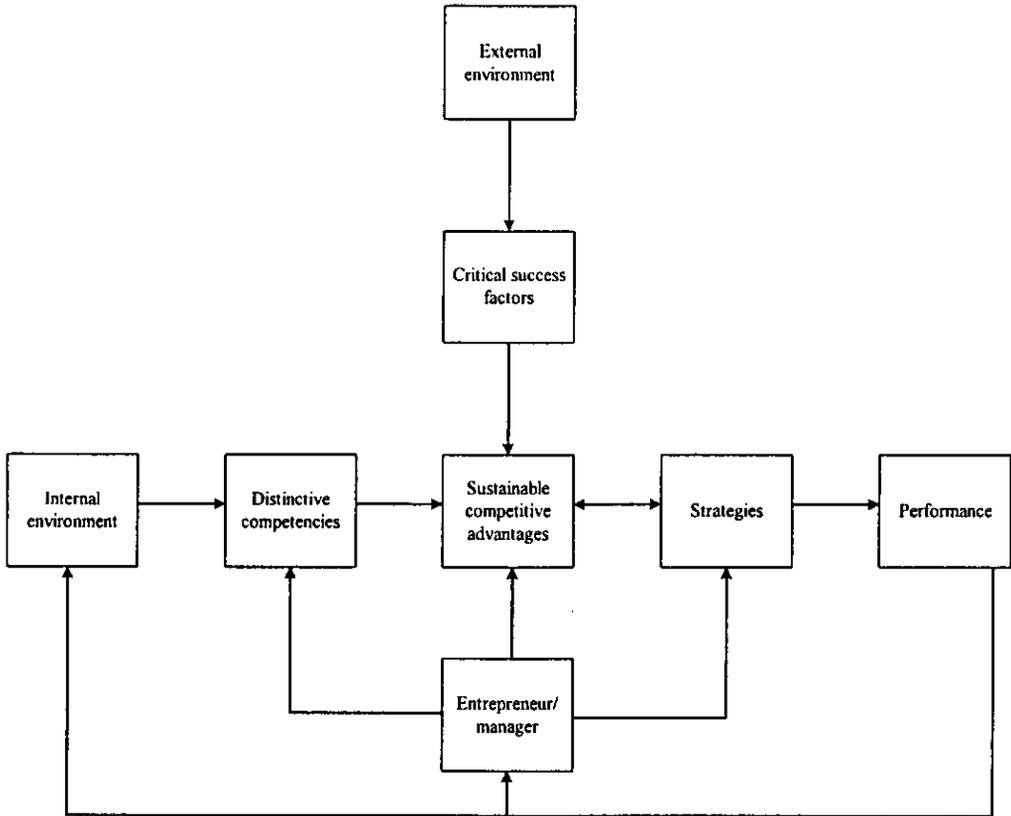


Figure 3 : Conceptual research model

### CHARACTERISTICS OF THE INTERNAL ENVIRONMENT AND DISTINCTIVE COMPETENCIES

The resource-based theory discusses the importance of certain resources or 'distinctive competencies' for sustained competitive advantages of the firm (Diericx & Cool, 1997) (see previous section). In SMEs the scarcity of resources is even more obvious compared to large companies. For instance think of the following intangible assets: access to capital markets, access to distribution channels, access to suppliers, culture, employee flexibility, intellectual property, reputation, and social networks. Examples of tangible assets are current assets, equipment & machinery, and initial size. The importance of the resources approach for our research is for instance outlined by Nooteboom (1999), who discusses a synthesis between transaction cost theory and the competence perspective, which is of relevance for the choice of the network strategy (e.g. outsourcing depends to a large extent on specific competencies). Next to these, the internal environment also consists of aspects like organization structure, life cycle, management information systems, corporate governance elements (such as financial control, board composition, dispersion of ownership among employees, share of equity owned

by founders) (Chrisman *et al.*, 1998). The internal environment and distinctive competencies have an indirect relationship with performance. In general, structural and cultural aspects are well known contingencies that determine strategic behavior. Organizational life cycle models or stage of development models suggest a holistic perspective of organizations in which clusters of variables regarding structure, culture, strategy, and environment are studied (Covin & Slevin, 1990; Snuif & Zwart, 1994a, 1998). The stage of development of an organization may influence for instance the choice of a social network and in that way indirectly the performance of a firm (Huse, 1994).

### **CHARACTERISTICS OF THE EXTERNAL ENVIRONMENT AND CRITICAL SUCCESS FACTORS**

The institutional context is important for the relationships between the entrepreneur/manager and financial institutions (banks, venture capital), shareholders, government and the way the business is assessed by these stakeholders. Specific characteristics of the industry context might be of relevance for the discretionary strategic behavior of the entrepreneur/manager (Risseuw & Masurel, 1994). Research by Dean, Brown, and Bamford, (1998: 724) suggests that small and large businesses differ substantially in their responses to industry environments. They indicate that their results suggest that small businesses are adept at pursuing strategies built upon the strengths of speed, flexibility, and niche-filling capabilities. Important contingencies of the external environment are heterogeneity and uncertainty (Dess *et al.*, 1997). Bamberger (1994) specifies different 'critical success factors' for SMEs that represent heterogeneity or uncertainty of the external environment (e.g. the life cycle of a product/service). Grant (1995) describes critical success factors in this respect as answers to two questions: what do customers want and how do firms survive their competitors? These contingencies have an indirect relationship with performance.

#### **Entrepreneur/Manager**

The entrepreneur/manager is an important strategic factor in SMEs (Gibb & Scott, 1985). His/her cognitive development and personal goals determine the possibilities of understanding and using strategic management and planning (Olson & Bokor, 1995: 40). The problem of distance between strategy formulation and implementation (and planners and managers) is not very relevant in SMEs, because both groups of activities are (often at the same time) performed or strongly influenced by the same person: the entrepreneur/manager. Also, the entrepreneur/manager has a clear impact on the development of specific distinctive competencies, because of his unique knowledge, experience, and position. This person directs the firm. His background, personal goals, and vision on the future guide both strategic and operational decisions and activities. Strategic decision making in smaller firms in this respect is generally top down, informal and intuitive (Mintzberg, 1989). Relevant characteristics of the entrepreneur/manager include various personal characteristics (Nooteboom, 1994), such as internal locus of control, need for achievement, and risk taking behavior. An internal locus of control might be an indication of visionary power and a strong position of the entrepreneur/manager (which also fits within the resource-based approach of strategy). The entrepreneur/manager or the top manager usually is the person who has the vision. As such he (and therefore his personal goals) has a profound influence on the performance of the firm. Corporate governance theory indicates that different ownership or governance structures of the firm can be (indirectly) related to company performance (Huse, 1994). Examples of relevant indicators are management holdings and insiders/outside (e.g. family) in the board (Daily & Dalton, 1994; Huse, 1994). The entrepreneur/manager can be considered as one of the main elements that differentiates a SME from a larger firm. As Figure 3 shows, the entrepreneur/manager has a pivotal role in the research model, because (s)he influences almost all building blocks of the model.

## SUSTAINABLE COMPETITIVE ADVANTAGES AND STRATEGY

The relationship between sustainable competitive advantages and strategies has been elaborated and extensively discussed by Porter (1985). His generic strategies of cost leadership, differentiation or focus are well known in reflecting the distinctive competencies of a firm, which lead to sustained competitive advantages. In general, different strategies may influence the performance or 'success' of a firm. Grant (1991; 1995) discusses this relationship also (see previous section, Figure 1). In strategic management the distinction between content and process is well known. Content is concerned with the type of strategic decision or strategy (e.g. Miles and Snow's strategic types), whereas process focuses on its formulation and implementation process. The process view aims at the way strategies are formulated and implemented. Both points of view are interdependent. Because this section is the central building block of the model, the two complementary concepts of strategy content and process are somewhat more extensively described. The following aspects are of importance for SMEs:

- The most traditional way of specifying the process approach is the formal strategic planning approach. Formal strategic planning has received a lot of criticism (Hurst, 1986; Mintzberg, 1990, 1994). Nevertheless, the strategy process is often discussed from the point of view of formal planning. The literature shows mixed results concerning the impact of formal planning on performance. An important indicator of (the quality of) a strategy process (formalized or not) is the existence of a business or strategic plan (Snuif & Zwart, 1994b,c; Zwart & Van der Werf, 1996). Olson and Bokor (1995) indicate that in 50% of the cases, starters do not make a formal business plan. Snuif and Zwart (1994b) found that in more than half of their sample of SMEs no formal strategic planning activities were prevalent. We have to be careful to draw conclusions only on this anecdotal empirical research. Based on his STRATOS-database, Bamberger (1994) indicates that, although this might be the case, strategic behavior may show up: "small firms in general do not carry out a strategic planning process; they rarely have formal plans. However, strategic behavior does not necessarily mean the elaboration of long-range written plans".
- As far as content of strategies is concerned Olson and Bogor (1995: 35) state that strategic behavior can vary between the two extremes of being highly innovative to being highly imitative. A new product/service strategy or the degree of innovation can be very powerful in the survival of a firm, were performance is expected to reflect its distinctive competencies. Dess et al. (1997: 691) explored the nature of strategy making and its relationship with environment and performance. They concluded that entrepreneurial strategy formation is a salient strategy-making approach that non-diversified organizations, such as SMEs, use. Entrepreneurial strategy making is most strongly associated with performance when it was combined with both the appropriate strategy and environmental conditions.
- The choice of a network strategy. Networks (clusters or alliances) are important instruments for SMEs. They can be used as social networks, as learning devices or as resource-relating instruments. Trust between actors is in this respect a central concept; for instance it lowers the need for contracting. Ring and Van de Ven (1992) consider the riskiness of the venture and the nature and degree of trust between parties as key features determining whether markets, hierarchies or networks based on relational contracts are used. Atkins and Lowe (1994) define strategic networks as "long term purposeful arrangements among distinct but related for-profit organizations that allow these firms to gain or sustain competitive advantage". They indicate also that the 'glue' that binds the network together is the lowering of transaction costs. The lack of trust is the main reason for transaction costs. Therefore, generating trust will lead to lower transaction costs

(Nooteboom, 1996: 989). Nooteboom (1994) suggests that the strategy of employing external networks serves to compensate for the problems of absorption capacity; they are used for generation of awareness and the efficient acquisition of relevant specialized knowledge (think of R&D knowledge in the biotechnology sector). A broader point of view holds Kamann (1998), when he states that actors in a network require specialized external assistance when resources (for instance venture capital) are not available for particular activities required for a successful operation of the entire business. The nature may be legal, institutional, financial, managerial, organizational, related to R&D, know how, reputation and so forth. In this respect, also the finding that small firms tend to use alliances to reach scale and scope can be interpreted (Gomes-Casseres, 1997; Van Gils, 2000).

In general, the relationship between sustainable competitive advantages and performance will be moderated by strategy. This will also be influenced by the entrepreneur/manager and the external context (as Figure 3 shows).

### PERFORMANCE

Performance measurement is a much-discussed subject. Olson and Bogor (1995) for example adopted a straightforward framework in which performance is measured by only sales growth. Other relevant measures are e.g. profitability, return on investment, overall company performance (growth), corporate social responsibility, or (esp. for starting firms) survival. Also, composite measures are possible (Haleblian & Finkelstein, 1993). Next to these objective measures, subjective measures must be taken into account in the context of SMEs (Bamberger, 1994; Snuif & Zwart, 1998). Moreover, sometimes in SMEs subjective goals (such as continuity, maintaining traditional methods of working, working conditions) can be considered more important compared to objective measures of performance. Performance can vary depending on factors as organizational size and industry type. Therefore, in the analysis, control variables, which take these factors into account, must be considered (Hitt & Tyler, 1991; Huse, 1994). As has been shown in the previous section, the performance or success of the firm also has (investment) consequences for the resources (and subsequently the distinctive competencies) of the firm. The personal income of the entrepreneur/manager often depends on the performance of the firm.

The discussion of this section can be summarized as presented in Figure 4. We want to stress that the major challenge is to test such an integrative model (that captures in a pragmatic way the various variables and relationships of different theories). By doing so, we expect to obtain a better insight in the factors that drive the strategy and performance of SME's.

### RELEVANCE OF APPROACH

The relevance and need of performing strategic research in SMEs by taking into account a wide range of relevant factors has been described. Compared to strategic research at large enterprises, this kind of research in SMEs has more relevance and can be better executed, because of the sheer size of SMEs and the specific role of entrepreneurs/managers. In the context of SMEs, the various relationships are generally more transparent and better interpretable and measurable. The conceptual research model of the previous section is based on a set of theories: strategic management theory (esp. resource-based theory), theory of entrepreneurship/entrepreneurs, industrial organization theory, corporate governance theory, network theory, and contingency theory. These theories can be used to carefully specify the conceptual relationships in the research model that explain different aspects of strategic behavior of SMEs. In this way, the theoretical as well as a more practical relevance of this research shows up. The theoretical relevance has been described in the previous sections (Haahiti, 1989; Bamberger, 1994; Bijmolt & Zwart, 1994).

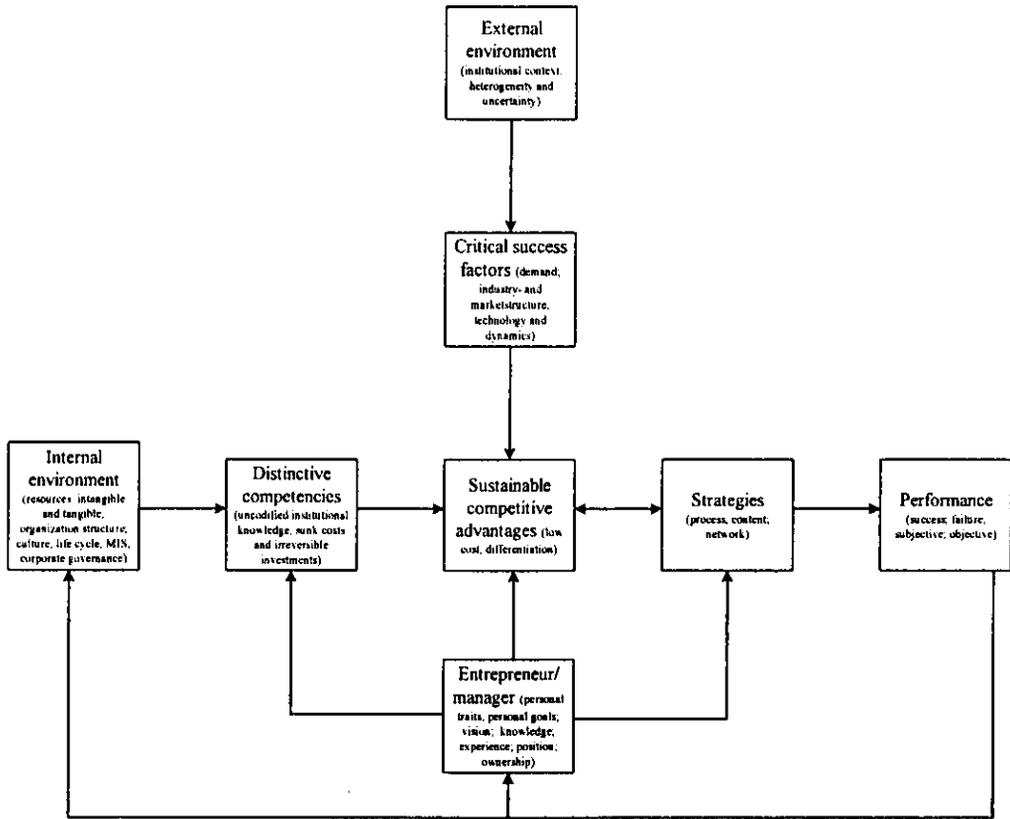


Figure 4 : Main dimensions of research model

The practical relevance comes forward in the possibility to provide SME-researchers, owners/managers, policy-makers or consultants with a richer view on factors which influence the performance of SMEs. A view that stresses the inter-relationships between for instance the level of performance (think of a composite measure of return on investment, return on equity, return on sales, or corporate social responsibility measures such as limited environmental pollution), the use of a business plan, the kind of competitive advantage (e.g. product innovation or -quality and participation in a R&D network), the phase of the business (e.g. start-up in new market; young organization with no established culture and routines), the extent of hostility/dynamics of the external environment, and the management holdings (of shares) and personality of the entrepreneur/manager(s). In this way a start-up firm has other scores on the variety of dimensions compared to a more established firm. A more confined approach – e.g. by considering only the direct relationship between strategy and performance - is less satisfactory, because it neglects the other influencing factors and isolates the relationship at the expense of more complete insights. Another argument to perform this kind of research is that it may lead to better managerial insights into the strategic behavior of decision makers in SMEs. These insights (theories) may contribute to more possibilities of improved strategic thinking (Lasher, 1999), strategic conversation (Van der Heijden, 1996) or even strategic learning (Bood & Postma, 1997) in SMEs.

## CONCLUSION

In this article a pragmatic conceptual framework has been suggested to study strategic behavior in SMEs. The conceptual research model of this article makes clear that the various (causal) relationships must be considered in an integrated way. New research aimed at only partial relationships in this field has no value-added compared to the existing literature. The conceptual and empirical specification and testing of such a model is a challenge for researchers, because it asks for methodological pluralism. Eclectic quantitative and qualitative research approaches are both needed to fruitfully approach this problem field. The proposed research framework also has practical implications. In contrast to studying and discussing only partial relationships, we identify, distinguish and suggest various elements and levers to direct strategic action (issues that can be changed such as competencies and strategies) and ultimately performance. More practice-oriented people might take advantage of this holistic approach, because it appeals more to their intuition and experience. The next step will be the empirical testing of the proposed research framework. With this article we hope to stimulate debate and a fruitful area of research.

## ENDNOTES

<sup>1</sup> Sandberg and Hofer (1987) made some early efforts to fill this gap.

<sup>2</sup> In fact, more recursive relationships could be established (e.g. also from sustainable competitive advantages to critical success factors and external environment). In this article we, however, want to stress the main relationships and show the complexity of an integrative model.

<sup>3</sup> In a certain way (s)he (her)himself is also part of this set. In the following, the entrepreneur/manager is considered as the central directive and controlling person of the SME.

<sup>4</sup> See also the discussion on this subject in the ranks of the Strategic Management Journal. Mintzberg (1994) concentrated his criticism on the following subjects:

- The problem of forecasting. Often not very realistic assumptions concerning the potentialities of forecasting the environment (historical trends; discontinuities) are used.
- The problem of distance. An artificial distance may be created between strategy formulation and implementation, between planners and managers, and between soft (qualitative) data and hard (quantitative) data.
- The problem of formalization. Too little attention is paid to intuition and creativity to deal with the in-transparency and uncertainty of the environment (too much analysis and too little synthesis).

<sup>5</sup> The STRATOS database involves data about 550 variables on 1,135 enterprises in three different sectors (clothing: 35%, food: 39%, and electronics: 27%) in eight European countries (including the Netherlands). The database is based on structured interviews with identical questionnaires with (owner) managers of SMEs, especially tailored to various strategic aspects of their organizations (the data consists of quantitative and qualitative (Likert-scale) scores).

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*Theo Postma is associate professor of strategic management at the Faculty of Management and Organization of the University of Groningen. His research interest focus on strategic management, strategic alliances, and organizational/corporate governance*

*Peter Zwart is professor of small business and entrepreneurship at the Faculty of Economics of the University of Groningen. His research interests focus on strategies of SMEs, business plans, internationalization and SMEs, and entrepreneurship. He founded the SME-management program at the University of Groningen (the Netherlands).*