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Strategy process management in multinational companies: status quo, deficits and future perspectives

Abstract

This article analyzes the underinvestigated field of strategy process management in German multinational companies (MNCs). Whereas the emphasis of research in the field of strategic management has traditionally been laid on the investigation of the strategy content, the knowledge of the strategy process and how promising strategies can be shaped and implemented within firms still remains limited. Considering these aspects this paper provides the following: first, we draw a distinction between different stages of the strategy process and empirically investigate tools and concepts applied by 122 firms to describe the status quo of strategic management in German MNCs. Second, based on our findings, we highlight the major deficits in the current strategy processes of the surveyed firms. Third, we present some suggestions on how strategy processes should be designed in MNCs in order to have a positive impact on performance. Although our study focuses solely on German MNCs we consider the results to be helpful for firms from other national backgrounds.

Keywords: multinational companies, performance, strategy process, strategic management.
JEL Classification: M10, M16.

Introduction

One of the central questions in strategic management research is how to ensure the long-term survival of the firm by outperforming its competitors (Rumelt et al., 1991; Hoopes et al., 2003; Hoque, 2004). Early and path-breaking works of Chandler (1962), Ansoff (1965) and Andrews (1971) shed light on this question and shaped the discipline of strategic management by formally proposing two distinct research strands: the content and the process of strategic management. As a consequence, content and process approaches have dominated the field to date (Huff & Reger, 1987; Burgelman, 1996; Noda & Bower, 1996; MacKay & McKiernan, 2004; McKiernan & Carter, 2004; Ramos-Rodriguez & Ruiz-Navarro, 2004). Although most strategy researchers consider the stated dichotomy between strategy content and process as artificial, the two approaches are often separated for analytical reasons (Schendel, 1992a). However, a more detailed analysis reveals that emphasis has traditionally been laid on the investigation of the strategy content. In this field of research, scholars have tried to uncover those constituting factors of competitive advantage that are the result of strategic activities and can explain what strategic positions of the firm lead to superior performance under changing environmental circumstances (Porter, 1980; Barney, 1991; Chakravarthy & Doz, 1992; Hamel & Prahalad, 1994; Porter, 1996; Stuart, 2000; Kuester et al., 2001; Barney, 2002; Dussauge et al., 2004). The second research strand, focusing on the structure of the strategy process to examine "how effective strategies are shaped within the firm and then validated and implemented efficiently" (Chakravarthy & Doz, 1992, p. 5), has gained much less attention (Pettigrew, 1992; Ezzamel & Willmott, 2004). Notwithstanding the rise of strategy process-related research during the last two decades (Srivastava & Grant, 1985; Huff & Reger, 1987; Hart, 1992; Pettigrew, 1992; Van de Ven, 1992; Hart & Banbury, 1994; Burgelman, 1996; Papadakis et al., 1998; Rühli & Schmidt, 2001), the knowledge of the strategy process still remains limited (McKiernan & Carter, 2004). Most studies usually focus on only one feature of the process such as simplicity (Lumpkin & Dess, 1995), the impact of information search (Julien & Ramangalahy, 2003), or the relationship between environmental uncertainty and the strategy process (Hoque, 2004). This research gap particularly applies to the strategic management literature on German MNCs. Although a number of conceptual approaches have been published and discussed in the recent past (Kreikebaum, 1997; Kirsch, 2001; Müller-Stewens & Lechner, 2005), only a few authors have investigated strategy processes empirically (Kreikebaum & Grimm, 1978; Kreikebaum & Grimm, 1982; Al-Laham, 1997; Welge & Al-Laham, 1997; Welge & Al-Laham, 1998). Based on this assumption the motivations for this article are threefold.

First, we try to gain a better understanding of the most important determinants of the strategy process in German MNCs. Due to the lack of empirical insights into explicit systematic procedures used to derive strategies we surveyed the German Fortune 500 firms to analyze the status quo of current strategic management practices. The second motivation of this paper is to reveal major deficits of present strategy processes as implemented by German MNCs. Since our study was guided by a strong concern for managerial relevance, the aim of this paper is not merely to observe what kind of strategic management approach is applied by

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German MNCs, but to investigate if certain tools and concepts can contribute to improve the profitability of a firm. Since existing empirical studies on the link between strategy process and financial performance agree that there is only a tenuous link between the two concepts (Pearce et al., 1987; Tegarden et al., 2003) we introduce strategy process satisfaction (SPS) as a mediating variable to map this relationship. We will show in the course of our analysis that a high level of top managers' subjective SPS can accurately reflect the quality of a strategy process and is positively correlated with performance (Schweiger et al., 1986; Schwenk, 1990; Brockner, 2002). Based on these findings, the third motivation for this article is to present some suggestions on how strategy processes should be designed in order to have a positive impact on SPS. Our study reveals a number of critical factors which have a significant effect on SPS and hence our results provide a solid basis to outline some future perspectives of how to design strategy processes in MNCs. Consequently, we consider our paper to contribute to the closing of the gap between research and practice in terms of applicability of theoretical concepts, as this continues to be one of the main issues in the field of strategic management research (McKiernan & Carter, 2004).

To address the mentioned research motivations the structure of the article is as follows. First, we briefly review the state of the art in strategy process research and present the underlying research model of this paper. Second, we discuss activities and interrelations of the different stages of our strategy process model. As an outcome of this analysis we propose a number of research hypotheses on factors which have a positive impact on top managers' perceived strategy process satisfaction. Third, we present the analysis of the primary collected data and test our hypotheses. As a result we will be able to identify a number of critical factors which have a significant impact on satisfaction with strategy process and performance. Fourth, we discuss and summarize the main findings and provide some recommendations on how to improve current strategy processes. We conclude with some further implications for research and practice.

1. Conceptual foundations

1.1. Strategy process. It is widely accepted that there is no single, universally valid definition of strategy and strategy process (Mintzberg, 1987; Van de Ven, 1992; Knights & Mueller, 2004). For the purposes of this article, we follow a more traditional perspective, where strategy can be understood as the "pattern or plan that integrates an organization's major goals, policies, and action sequences into a cohesive whole. A well formulated strategy helps to marshal and allocate an organization's resources into a unique and viable posture based on its relative internal competencies and shortcomings, anticipated changes in the environment, and contingent moves by intelligent opponents" (Quinn, 1980, p. 7). This traditional perspective of strategy still dominates the literature and can be distinguished from modern perspectives in which strategy is described as "a messy, disorderly, and disjointed process" (Vollberda, 2004, p. 36) or post-modern approaches where a strategy is defined as "strategic schemes or frames of reference that allow the organization and its environment to be understood by organizational stakeholders" (Vollberda, 2004, p. 37).

In coherence with the strategy definition, the strategy process describes the flow of strategic activities and is concerned with how strategy should be made, analyzed, modified, evaluated, implemented and communicated (Price & Newson, 2003; De Wit & Meyer, 2004; Wilson & Jarzabkowski, 2004). The strategy process perspective stresses the goal-oriented nature of strategic management and argues that the development of strategies relies (at least to some extent) on deliberate activities and decisions. As we enter the 21st century, strategy process research has progressed to a state with a plethora of ideas by a great variety of authors (Whittington, 2003; Ezzamel & Willmott, 2004; McKiernan & Carter, 2004; Ramos-Rodriguez & Ruiz-Navarro, 2004; Whittington, 2004). Attempts to classify certain groups within strategy process research can, e.g., be found in the categorization regarding the meaning and sequence of strategy process by Van de Ven (1992) or the ten schools of strategy formation by Mintzberg & Lampel (1999). Moreover, there are also attempts to chronologically structure the strategy process research according to the decades of their emergence (Chakravarthy & Doz, 1992; Farjoun, 2002). All these attempts at structuring have positively commented on the continuously growing field of strategy process which cannot be contained within any single paradigm (Pettigrew, 1992; Mintzberg et al., 1998).

However, most authors portray the strategy process as a framework which comprises a number of distinct phases (Farjoun, 2002; Price & Newson, 2003). Traditionally, those strategic activities follow a certain progression with all stages being theoretically and causally linked to each other (Schwenk, 1984a, p. 114; Van de Ven, 1992, p. 172). Despite the fact that strategy process models differ in complexity and emphasis, an in-depth analysis of twelve of the most often cited concepts in the strategic management literature reveals that there seems to be a consensus on the most important stages of the strategy process (see Table 1). In most of the analyzed concepts one can find traces of the following four stages, namely strategic analysis, strategy formulation, strategy implementation, and strategic control.

Table 1. Contrasting selected strategy process models

Authors & summaries	Activity phases or stages ..... ▶			
Ansoff (1965). Conceptual strategic planning model: focus on expansion and diversification	1. Objectives. 2. Internal and external analyses; gap analysis.	3. Development of decision criteria – feasibility study. 4. Decision making.	5. Strategic plan – product-market, administrative and finance strategy as well as strategic budget.	6. Review.
Steiner (1969). Process model of strategic planning	1. Purpose of the firm and values of top-managers. 2. Evaluation of threats, opportunities, weaknesses and strengths.	3. Long-term objectives – strategic planning and plans. 4. Medium-range programming – design subpolicies and substrategies.	5. Short-term programming and tactical plans. 6. Design organization for plans.	7. Review and evaluation of plans – continuous feasibility tests.
Andrews (1971). Conceptual strategy process model	1. Identification of objectives. 2. Environmental and resource analysis. 3. Identification of opportunities and threats.	4. Identification of strategic alternatives – strategic decision making process. 5. Social responsibilities. 6. Management values.	7. Organizational structure and relationships. 8. Organizational processes and behavior. 8. Leadership.	9. Revise objectives and strategies.
Hofer/Schendel (1978). Complex conceptual model for formulating corporate and business level strategies	1. Identification of desired corporate objectives and major business areas. 2. Identify SBU environmental characteristics and trends – external and internal analyses. 3. Gap-analysis.	4. Identification and evaluation of strategic options. 5. Design portfolio and forecast future. 6. Identify gap closing options. 7. Derive SBU and corporate strategies.	8. Implementation.	9. Revise objectives and strategies.
Lorange (1980). Normative model of corporate strategic planning	1. Objectives setting – identification of relevant strategic alternatives.	2. Strategic programming – develop programs for achieving chosen objectives.	3. Budgeting – establish detailed action program for strategy.	4. Monitoring – measure progress toward fulfilment of strategies. 5. Establish incentives to motivate goal achievement.
Mazzolini (1981). Conceptual organizational process approach to strategic behavior	1. Decision-need identification.	2. Search for alternatives. 3. Investigation of courses of action. 4. Review and approval.	5. Implementation.	
Rogers (1981). Normative model	1. Set objectives. 2. Environmental assessment (market/clients, products/services, competition).	3. Modify objectives. 4. Develop and analyze strategic alternatives – select/ optimize plan(s).	5. Implement plan.	6. Feedback/control.
Hax/Majluf (1984). Strategy process model	1. Structural conditions.	2. Strategy formulation (covers corporate, business and functional strategies).	3. Strategic programs. 4. Strategic and operational budgeting.	
Kreikebaum (1997). Conceptual strategy process model	1. Set overall strategic objectives. 2. Internal and external analyses	3. Strategy formulation, evaluation and selection.	4. Align organizational structure and relationships. 5. Strategy implementation.	6. Strategic control – ongoing evaluation of objectives, analysis, segmentation and strategies.
Kirsch (2001). Strategic management process model	1. Firm's overall objectives.	2. Strategic programming on project, employee and investment object level.	3. Short- and long-term operative planning.	4. Strategic programming and operative planning control
Farjoun (2002). Organic model of the strategic management process	1. Analysis of external (firm environment) and internal (firm organization) influences.	2. Strategy formulation.	3. Strategy realization/implementation.	4. Feedback, revision, learning and control of strategy and firm performance.
Müller-Stewens/ Lechner (2005). Conceptual strategic management model	1. Internal and external analyses of the situation and integration of both analytical results. 2. Mission values and vision goals.	3. Strategy evaluation and selection at five levels (network, corporate, business, functional and issue strategies).	4. Strategic program.	5. Feedback.
Strategy process	1. Strategic analysis	2. Strategy formulation	3. Strategy implementation	4. Strategic control

At the strategic analysis stage, on the basis of an investigation of internal resources, capabilities and core competencies as well as external environmental circumstances, strategic threats and opportunities are identified. Based on this information firms formulate mission values and set strategic objectives. The strategy formulation stage focuses on the actual decision-making process in which strategic alternatives are determined and evaluated. The goal within this stage is to select promising strategic options and to formulate applicable strategies at the corporate, business, and functional levels. At the implementation stage these strategies need to be translated into a number of concrete actions and linked to financial budgets. Within the strategic control stage, which actually impacts all three of the preceding stages, firms should monitor the underlying assumptions and measure progress towards the achievement of

their strategic objectives. Thus, strategic control is not conceived as the last step in a strategy process or the mere adjunct to the implementation step. Strategic control has to be understood as a counterbalancing activity to the other three steps and as an autonomous management function (Schreyögg & Steinmann, 1987, p. 94). Consequently, the four different stages do not constitute separate subjects and cannot be understood in isolation, rather they are continuously ongoing and thoroughly intertwined with one another (De Wit & Meyer, 2004). As a result of this analysis Figure 1 presents the strategy process model which serves as basis for our empirical study.

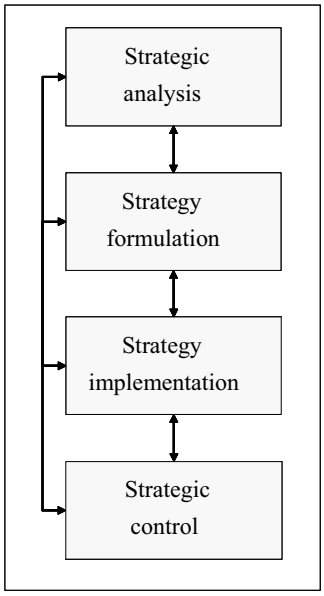

Fig. 1. Underlying model of the strategy process

We are quite aware that our and other existing strategy process models cannot fully capture the variety and complexity of real world strategic problems, as strategy processes in reality are much more dynamic and complex, and depend on the situational context of the problem (Srivastava & Grant, 1985; Van de Ven, 1992; Hart & Banbury, 1994; Garvin, 1998; MacKay & McKiernan, 2004). Nevertheless, it appears to be appropriate to use this model as a framework to develop the study's hypotheses since it captures the most significant phases of the strategy process. In particular we will investigate the question in more detail how these stages are linked to the managers´ subjective satisfaction with the strategy process and in turn to MNCs' financial performance.

1.2. Linkage between strategy process and performance: introducing strategy process satisfaction as a mediating variable. We agree with Tegarden et al. (2003), who propose that the relationship between strategy process and performance is constituted by a set of complex ties and that often there is no clear evidence which combination of process variables actually increases performance. Because of difficulties to measure the direct impact of certain strategy process variables on performance of firms it appears to make sense to draw on a mediating concept to map this relationship (Pearce et al., 1987). Linking cause and effect in a study via mediating variables can help to specify what it is about the dependent variable that is important. Haas & Hansen (2005), for example, refer to the mediating effects of team task experience and task competitiveness to mediate between knowledge resources and performance in a consulting company. In a recent study on synergies in multibusiness firms Tanriverdi & Venkatraman (2005) apply the concept of complementarity to intervene between different types of knowledge relatedness and firm performance. In line with this general practice in strategy research we also refer to a mediating variable to shed new light on the relationship between the strategy process and performance. Hence, we believe that an appropriate notion can be found in the strategy process satisfaction (SPS). Referring to a number of studies it is reasonable to suggest that a higher level of top managers' perceived satisfaction with a decision-making process firstly reflects the quality of the process and secondly is positively correlated with a more favorable outcome (Schweiger et al., 1986; Schwenk, 1990; Brockner, 2002).

The existence of a positive relationship between satisfaction with the strategy process and performance has already been suggested by Schendel (1992b), who argues that if one does not know how administrative processes should be designed in order to develop and execute strategies then only by accident or luck one could have a successful strategy. Therefore, if the structure of the strategy process is perceived to be deficient, performance will be lessened. Factors reflecting managers' perceptions of a satisfactory strategy process comprise, e.g., efficient use of strategy tools and techniques, fairness and consistency in strategic decision making, trustful relationships between managers, ability of subordinates to challenge strategic decisions, and effective two-way communication (Schwenk, 1990; Kim & Mauborgne, 1993; Brockner et al., 2000; Brockner, 2002). However, a more detailed analysis of the literature shows that most studies on the relation between process satisfaction and performance were carried out by using the method of laboratory experiments. Samples repeatedly comprised undergraduate or MBA students (e.g., Schwenk, 1984b; Schweiger et al., 1986; Schwenk, 1990) and only a limited number of studies drew on

samples which included for-profit organizations (Schweiger et al., 1989). We therefore intend to tackle this apparently underinvestigated area by addressing the SPS of MNCs.

Although SPS represents the mediating variable in our study, the managerial importance of performance is evident for a strategy researcher. Nevertheless, measuring firm performance is a complicated undertaking (Barney, 2002). Usually researchers draw a distinction between the concepts of financial performance and operational performance (Venkatraman & Ramanujam, 1986; Ruigrok & Wagner, 2003). Following this line of thought, financial performance can be conceptualized by referring to indicators as sales growth, growth in assets, profitability, stock price or EBIT. Operational performance, on the other hand, does not directly reflect monetary outcomes but the underlying processes that ultimately lead to financial performance (e.g., product quality or technological capability). We draw on the concept of financial performance and in particular sales growth and EBIT, because these operating figures are among the most prominent financial performance indicators to measure positive outcomes of strategy processes in empirical research (Pearce et al., 1987; Nobeoka & Cusumano, 1997; Barney, 2002; Martin & Grbac, 2003). In other words: reflecting the current view we can conclude that MNCs which are more satisfied with the quality of their strategic management processes are more likely to achieve above-average performance, measured in sales growth and EBIT.

1.3. Development of hypotheses. In order to develop our research hypotheses we will refer to our underlying strategy process model. Subsequently, we will briefly discuss each process stage and conclude with appropriate hypotheses. We therefore intend to investigate the contentment of the currently used strategy tools and practices in each of the four steps of the strategy process presented above.

Stage 1: Strategic analysis

In the first step of the strategy process the firm needs to assess and evaluate its internal position as well as the current state of its external environment (Ansoff, 1965; Rogers, 1981; Barney, 2002; Fitzroy & Hulbert, 2005). This initial requirement is derived from the assumption that firms need to match their internal strengths and weaknesses with environmental opportunities and threats to better meet the overall strategic objectives (Farjoun, 2002). Following Barney (1991, p. 112) those firm resources need to be rare, valuable, imperfectly imitable and non-substitutable to become strategic capabilities (or core competencies) and to sustain and maintain competitive advantage. However, to identify whether a firm has such strategic capabilities or not and to respond adequately to environmental opportunities while neutralising external threats, deliberate analytical procedures seem to be necessary. Within this context SWOT-Analysis is often cited as the most common strategic tool to address this problem and to provide a basis for strategic decision making (Farjoun, 2002; Behnam et al., 2004). Accordingly, our first hypothesis focuses on this strategic tool.

H1a: A positive and significant association between strategic analysis and strategy process satisfaction exists in the management process through management's choice and application of SWOT-analysis.

However, a SWOT-analysis can only to some extent draw a clear picture of the external environment and which internal resources it takes to compete successfully. Hence, the strategic management literature offers a large number of supplementary tools to perform internal and external analyses. Empirical data show that MNCs heavily draw on concepts like Performance Measurement Systems, Portfolio techniques, Value Chain analysis, Decision Tree analysis or the Experience Curve (Behnam et al., 2004, p. 27). Yet, to enable the firm to reduce uncertainty in strategic decision-making processes and to identify attractive market opportunities, only a combined application of both quantitative and qualitative analytical tools and concepts appears to be appropriate. The ability to apply alternative strategic tools simultaneously seems to have a positive impact on performance of MNCs (Huff & Reger, 1987; Julien & Ramangalahy, 2003; Hoque, 2004). Hence, an integrative use of tools and concepts offers the opportunity to come to more promising strategic decisions and in turn could have a positive impact on SPS. This viewpoint is reflected in the following hypothesis.

H1b: A positive and significant association between strategic analysis and strategy process satisfaction exists in the management process through an integrated approach to apply quantitative and qualitative tools and concepts.

It seems quite obvious that firms will not be able to process the information generated as a result of applying the tools at the strategic analysis stage without using advanced information technologies (IT). As Huber (1990) points out in his seminal article, IT heavily affects organizational design and strategic decision-making processes. He comes to the conclusion that the "[u]se of computer-assisted information processing and communication technologies leads to a more rapid and more accurate identification of

problems and opportunities [and] to organizational intelligence that is more accurate, comprehensive and available" (Huber, 1990, p. 63). This reasoning results in the final hypothesis addressing the strategic analysis stage.

H1c: A positive and significant association between strategic analysis and strategy process satisfaction exists in the management process through the use of advanced information technologies.

Stage 2: Strategy formulation

In accordance with the above mentioned definition we see strategies as patterns or plans that integrate an organization's major goals and action sequences into a cohesive whole (Quinn, 1980). Strategies describe a way in which firms try to simplify and respond to a world which is too complex and chaotic for anyone to fully comprehend. Appropriate strategies are therefore not chosen from a wide set of standard strategies but rather programmed and formulated to fit to the perceived external and internal situation (MacKay & McKiernan, 2004). It is unlikely to assume that strategy formulation will be a quick and clearly directed step in the strategy process. Many strategic alternatives could, and as we assume should, be considered and evaluated before eventually one strategic alternative will be selected and further pursued in the strategy formulation step. By first drawing up a range of alternatives, the firm can avoid the prevalent pitfalls such as a simple 'follow the leader' approach or mimetic behavior, and thus tailor the strategy to the business requirements as well as the context (Porter, 1996; Wilson & Jarzabkowski, 2004; Fitzroy & Hulbert, 2005). In accordance with these findings we assume that efforts made to deliberately develop and evaluate alternative strategies directly impact SPS. The following hypothesis reflects this assumption.

H2a: A positive and significant association between strategy formulation and strategy process satisfaction exists in the management process through the deliberate development of alternative strategies.

As already mentioned, the firm is embedded in a complex networked environment where one party's actions have direct or indirect influence on the others. In this environment the attractiveness of an industry is determined by five underlying forces: the intensity of rivalry among existing competitors, the threat of substitutes, the barriers of entry for new competitors, the threat of substitute products or services, and the bargaining power of suppliers and buyers (Porter, 1980; Porter, 2001). Although the strength of each of these forces varies from industry to industry, we are particularly interested in the rivalry among competitors as analyzing this force often provides the most valuable insight into how performance of a firm will evolve in the future (Behnam et al., 2004). For the purpose of this article we draw a distinction between the mere acknowledgement of competitors' strategies and behavior and an interactive approach towards competitors' reactions that comprises immediate adaptation processes of devised strategies after new information on rivals have emerged. We therefore present the following hypotheses which reflect these two complementing strategic approaches towards competitors' reactions.

H2b: A positive and significant association between strategy formulation and strategy process satisfaction exists in the management process through the general acknowledgement of competitors' reactions in strategy formulation.
H2c: A positive and significant association between strategy formulation and strategy process satisfaction exists in the management process through an interactive consideration of competitors' reactions in strategy formulation.

Analyzing competitor's reactions, however, does only draw an incomplete picture about the context in which firms make their strategic decisions. To explore the importance and linkage of the other forces of the industry structure (e.g., threat of substitutes) and to enable managers to generate and evaluate alternative strategies in fast-changing and complex environments, many firms have been turning to scenario planning techniques (Van der Heijden & Schutte, 2000; Ringland, 2002). Scenario analysis refers to tools and technologies for managing the uncertainties of the future and enhances environmental sense-making (Wack, 1985; MacKay & McKiernan, 2004). In the process of scenario-thinking firms develop alternative stories about how the environment may evolve in the future and describe the path from any given present situation to these future scenarios (Reibnitz, 1988, p. 15). Its results should not be viewed as forecasts of an extrapolation analysis, but rather as possible future outcomes to better understand critical success factors firms face in their competitive environment (Ringland, 1998, p. 2). However, scenario-analysis should not be an end in itself but a management tool to improve the quality of decision-making that can be used for risk assessment, evaluation and development of alternative strategies (Ringland, 1998, pp. 112-113; MacKay & McKiernan, 2004, pp. 69-80). This reasoning results in the following hypothesis.

H2d: A positive and significant association between strategy formulation and strategy process satisfac-

tion exists in the management process through management's choice and application of scenario planning techniques.

It is reasonable to believe that the quality of decisions made at the strategy formulation stage is closely related to the ability of a firm to collect, process, and critically evaluate relevant strategic options. However, as at the strategic analysis stage, firms will not be able to process all the relevant data without IT. Managers require timely information and it appears that the use of decision-support systems can help to make higher quality strategic decisions (Huber, 1990, p. 64). This reasoning results in the following hypothesis.

H2e: A positive and significant association between strategy formulation and strategy process satisfaction exists in the management process through management's choice and the use of advanced information technologies.

Stage 3: Strategy implementation

In practice, problems in the strategy process often are not as much associated with the strategy formulation phase but arise when it comes to implementation. In the implementation stage, selected strategic options need to be translated into a number of concrete administrative activities (Schendel, 1992b; Clegg et al., 2004; De Wit & Meyer, 2004). Thus, implementation includes the design of the organizational structure and processes which are necessary to put strategy into action (Chandler, 1962; Kim & Mauborgne, 1993; Farjoun, 2002). Moreover, strategy implementation involves the breaking down of the strategy on, e.g., business unit and functional levels and translating companies' strategy into specific measurable objectives (Kaplan & Norton, 1992). To achieve these goals, managers need to communicate the strategy among themselves and to their employees to create a shared understanding of the MNCs' objectives. Strategy implementation therefore relies heavily on effective and efficient communication with employees on all levels of the hierarchy (Kaplan & Norton, 2004). The following hypothesis reflects this statement.

H3a: A positive and significant association between strategy implementation and strategy process satisfaction exists in the management process through continuous and firm-wide communication of strategies.

We further argue that problems, when it comes to strategy implementation, are not necessarily due to the lack of motivation or understanding of employees, but can also be connected with a lack of specific skills needed for the execution of strategies (Kaplan & Norton, 1992). To overcome this problem, we believe that MNCs should undertake suitable training and coaching efforts. Thus, our next research hypothesis reads as follows.

H3b: A positive and significant association between strategy implementation and strategy process satisfaction exists in the management process through training and coaching of employees.

Stage 4: Strategic control

Schendel (1992b) states that there is no ultimate 'goodness' test for strategy, except the continued existence of the firm. Nevertheless, a strategy is almost always, at least to some extent, obsolete the very moment it is written down (Clegg et al., 2004) and therefore, one-time strategy formulation will most certainly not contribute to achieving sustainable competitive advantage. Enabling the survival of the firm requires a continuous process of selecting and formulating strategies as well as checking to see if this choice promises to work. In the case of our derived process model this implies that strategic control should continuously check and verify activities occurring in all of the above mentioned strategy process steps (Lorange et al., 1993). Thus, for strategic analysis and strategy formulation it seems crucial to monitor changes of underlying environmental assumptions and adaptability of the strategy (Schreyögg & Steinmann, 1987). Regarding strategy implementation, the degree of achievement and the planned strategic and operating budgets should be examined closely. In the end, a strategy process is nothing more than an attempt to anticipate future scenarios. But, as the internal and external environments are ever changing, an effective strategy process should include feedback mechanisms leading to continuous modifications or even the abandonment of the strategy. Hence, we conclude by proposing the following research hypothesis.

H4: A positive and significant association between strategic control and strategy process satisfaction exists in the management process through continuous updates on environmental assumptions and ongoing strategy adaptations.

Linking strategy process to performance by drawing on SPS is the heart of this paper. Based on this assumption and our previous findings as well as the derived hypotheses we can now present a conceptual framework of constructs and linkages which represents both the analytical line of reasoning of this article as well as the basis of our empirical study (see Fig. 2).

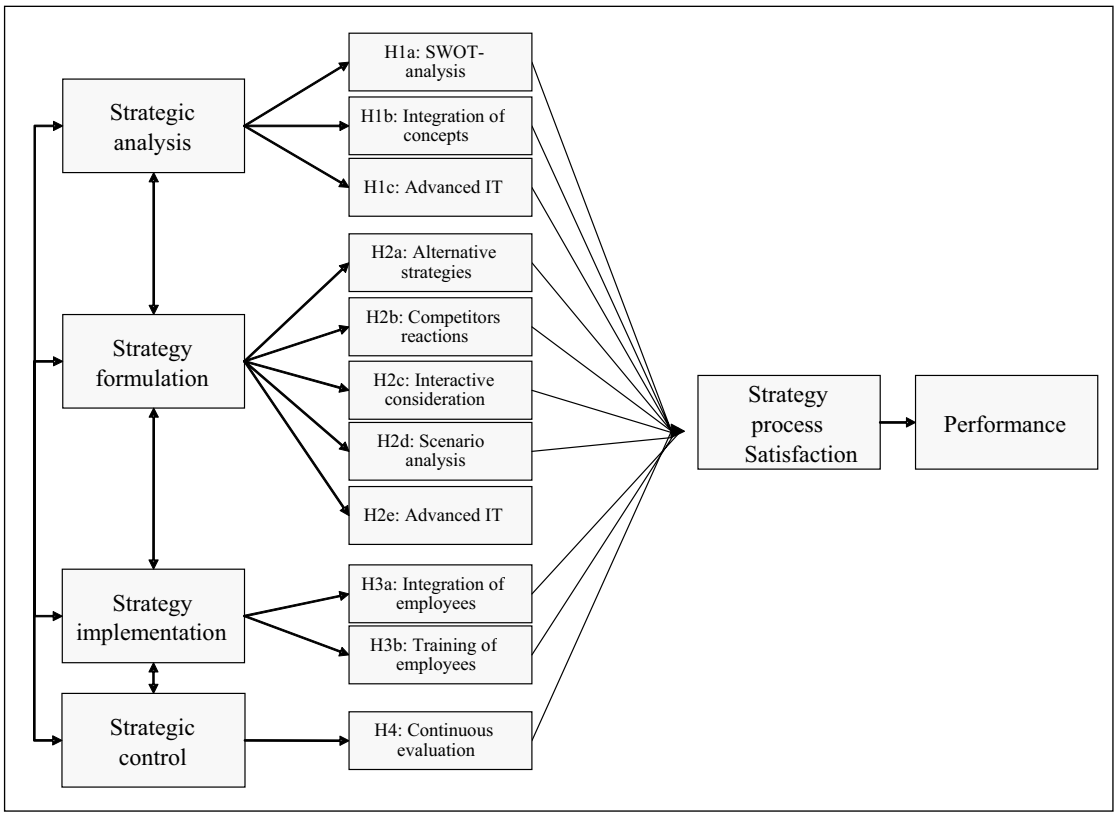

Fig. 2. Conceptual framework of constructs and linkages

2. Empirical study: status quo of strategy process management

2.1. Sample and data collection. To provide empirical support for our conceptual framework and to reconcile theory and practice of the strategy process, we collected primary data in a cross-industry field survey. The sample of our study consisted of the Fortune 500 top-tier firms in Germany. Out of the Fortune 500 only 428 firms were accessible and accepted to receive a questionnaire. 72 firms did not provide sufficient information on where to send a questionnaire and whom to contact. The study was performed between July and October 2002. Prior to the study, we conducted 4 explorative case studies in May and June 2002 which led to a reformulation of the above mentioned hypotheses and underlying conceptual assumptions. This pre-test phase led to meaningful modifications of the draft questionnaire. The final questionnaire comprised 42 item-scale, open and closed questions.

The questionnaires were mailed to chief executive officers, corporate development units or members of the board. Out of 428 a total of 122 usable surveys were returned which results in a 28% response rate. The participants were located at headquarters level (80%), division level (7%) as well as subsidiary level (13%). To assess response bias the key variables in surveys of early responding firms were compared to those of the latest respondents. In addition, variables of randomly chosen samples of responding and non-responding firms were compared (Armstrong & Overton, 1977). These compared variables included the number of employees, sales revenues, and annual growth rates. No significant differences were found between responding and non-responding firms and therefore we expect that non-response bias is not significantly affecting the study results.

The 122 respondent firms represent a wide range of industries from various backgrounds. Respondents' sectoral breakdown is as follows: 23 commercial banks, 14 utility & energy companies, 11 service firms, 11 retail companies, 10 chemical & pharmaceutical companies, 9 food & consumer products companies, 9 plant & machine building companies, 7 travel & tourism companies, 6 insurance companies, 6 automotive companies, 6 telecommunications & media companies, 5 electronics & IT companies, and 5 construction companies. Over two thirds of the respondent firms have more than 2,000 employees, and more than half have more than 5,000 employees. Approximately 80% of the participating firms have revenues of over 1 bn EUR and eight of the participating firms belong to the German DAX-30 shares index. Against this background we used industry and firm size as control variables.

2.2. Measuring strategy process satisfaction. In order to identify the critical factors in the strategy process we measured SPS. As mentioned above, the concept of SPS is driven by the underlying assumption that MNCs which are more satisfied with their strategic management processes are more likely to achieve above-average performance, measured in sales growth and EBIT. To compose a comprehensive concept of SPS in our survey, we drew a distinction between perceived effectiveness and efficiency of the different stages of the strategy process. The responding firms were asked to assess their satisfaction towards the effectiveness and efficiency of each strategy process step on a seven point scale from zero (low) to six (high). The effectiveness of the strategy process addressed the assessment of the appropriateness of the strategic tools and concepts, the perception of contentment with the way the strategy was eventually selected and formulated and the assessment if strategy implementation and overall control were achieved appropriately. The efficiency perspective focused on the perceived ratio of output compared to input into the strategic analysis, strategy formulation, and strategy implementation steps of the strategy process. Special emphasis was hereby laid on strategy formulation as the most central stage in the strategy process (Eisenhardt & Zbaracki, 1992, p. 17).

We found a strong correlation between the perceived effectiveness and efficiency of the strategy process. This supports and justifies the proposed combination of both sub-concepts to make a proposition about the overall SPS. We identified the median SPS at 3.76 on a scale from zero (low) to six (high). Since the sample included firms from various industries, we also tested for any possible industry effects in our analysis (Rhyne, 1986, p. 427). Except for the highest result in the automotive sector and the lowest one in the plant & machine building industry (t-test, $^{**}p < 0.01$), the results for the SPS do not show any statistically significant differences from other responding firms. As stated above, SPS can serve as a mediating concept to map the underinvestigated relationship between the strategy process and performance and can shed light on the question if comprehensive strategic planners outperform competitors with less sophisticated strategy processes. In line with previous studies (Rhyne, 1986; Kim & Mauborgne, 1993; Behnam et al., 2004) we found that higher SPS is significantly related to higher performance $^{*}(p < 0.05)$. In other words: MNCs which are more satisfied with the quality of their strategy processes were found to have superior performance (measured in sales growth and EBIT), compared to MNCs with lower SPS. Based on this outcome, we will now present the results of our study in detail and identify those characteristics of the strategy process that are actually associated with higher SPS.

2.3. Results. We applied a regression analysis to test the relationship between the configuration and outcome of the different strategy process stages and SPS. Table 2 shows how many of the surveyed MNCs actually employ certain tools and concepts at the different stages of the strategy process and how these variables are correlated with SPS. In the following we will outline the results of the statistical analysis in more detail.

Table 2. Results of regression analysis leading to SPS

Stages of the strategy process	Hypotheses	Specification	Currently used by	Correlation with SPS
Strategic analysis	H1a: SWOT-analysis	Assessment of internal resources and capabilities and the external environment	89%	Not significant
	H1b: Integration of concepts	Application and integration of both quantitative and qualitative concepts	83%	Highly significant, $^{**}p < 0.01$
	H1c: Advanced IT	Use of IT to process information	20%	Significant, $^{*}p < 0.05$
Strategy formulation	H2a: Alternative strategies	Deliberate outline of alternative strategic scenarios	38%	Highly significant, $^{**}p < 0.01$
	H2b: Competitors reactions	Acknowledgement of competitors' reactions	69%	Highly significant, $^{**}p < 0.01$
	H2c: Interactive consideration	Application of interactive approach to consider competitors' reactions	30%	Highly significant, $^{**}p < 0.01$
	H2d: Scenario-analysis	Application of scenario planning to assess risks associated with strategic options	49%	Highly significant, $^{**}p < 0.01$
	H2e: Advanced IT	Application of IT to simulate future strategic scenarios	4%	Highly significant, $^{**}p < 0.01$
Strategy implementation	H3a: Integration of employees	Continuous communication of information	51%	Highly significant, $^{**}p < 0.01$
	H3b: Training of employees	Enable employees to execute strategy	42%	Highly significant, $^{**}p < 0.01$
Strategic control	H4: Continuous evaluation	Ongoing evaluation of assumptions and outcomes of the strategy process	76%	Highly significant, $^{**}p < 0.01$

A closer look at the results regarding strategic analysis reveals that most MNCs consider this stage of the strategy process as important to provide a solid basis for strategic decisions. Therefore, they refer to a large number of different tools and techniques to analyze the internal and external environments. Figure 3 provides insights in both managers' familiarity with certain tools and the actual usage for strategic analysis purposes. It is no surprise that the most frequently applied concepts are the "traditional" strategic management tools like SWOT-Analysis, Performance Measurement Systems, Benchmarking, BCG-Portfolio and Value Chain. The stated relationship between SWOT-analysis, as the most prominent tool, and SPS is positively related but not significant (H1a). Within the step of strategic analysis a combined application of various tools proves to have a highly significant effect on SPS (H1b). An examination of the differences among industries, however, reveals that especially electronic, service and retail firms follow an integrative approach, whereas insurance companies show a lack in receptivity to integrate tools in strategic analysis (**$p < 0.01$). As expected, the use of advanced IT to process data in strategic analysis also positively affects SPS (H1c). Nevertheless, whereas H1b found highly significant validation (**$p < 0.01$), we could only find a significant correlation between the use of IT and SPS (*$p < 0.05$).

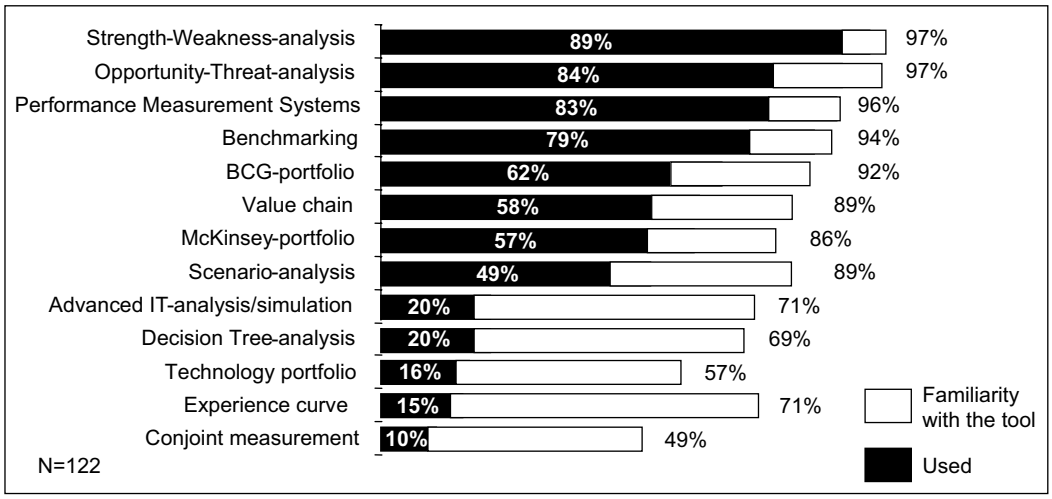

Fig. 3. Tools to analyze the external and internal environments

In our analysis regarding the strategy formulation stage we tested five hypotheses. First, the proposed finding that the deliberate development of alternative strategic scenarios has an impact on SPS is robust (H2a). Second, results strongly support the hypothesis that a general acknowledgement of competitors' reactions increases SPS (H2b). Third, we found evidence that following an interactive approach by accounting for competitors' reactions while selecting and formulating the firm's strategy has a highly significant effect on SPS (H2c). Fourth, we hypothesized that scenario analysis contributes significantly to the handling and understanding of complex environments. This tool, currently used by 49% of the responding MNCs, also proved to have a significant and positive effect on SPS. The fifth critical factor we identified within the strategy formulation step is the application of advanced IT. We found that using advanced IT to process data and to simulate future strategic scenarios is positively correlated with SPS (H2e).

As stated above, the strategy implementation stage often proves to be the most critical part of the strategy process, although our study reveals that MNCs refer to a large number of different tools and concepts to make strategies work (see Fig. 4). The above presented hypotheses, however, focus especially on integration and training of employees as prerequisites to put strategies successfully into action. Results of the analysis provide strong evidence that both an integration of employees in the strategy process by continuously communicating relevant information as well as training measures lead to an increase of SPS (H3a and H3b).

As for strategic control, our findings suggest that an ongoing evaluation of assumptions and outcomes of the strategy process is positively related to SPS (H4).

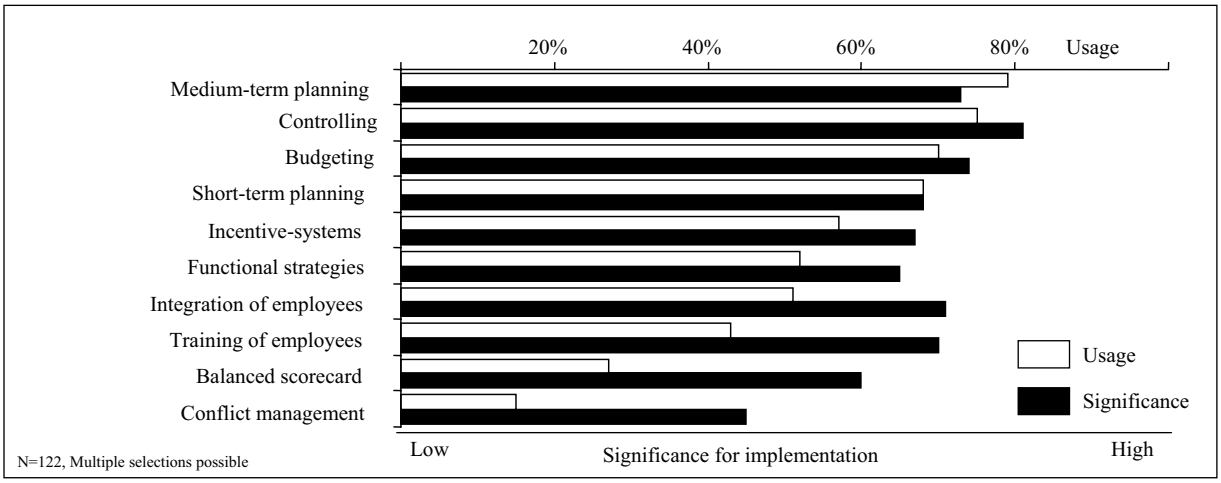

Fig. 4. Tools to implement strategies

We can summarize that only the posited relationship in H1a was not significant. Apart from a significant relationship between H1c and SPS all other hypotheses proved to be highly significant and strongly correlated with SPS.

3. Discussion: deficits and future perspectives of Strategy Process Management

The major objective of this study was to analyze the status quo of the strategy process in German MNCs and to assess the underinvestigated relationship between the process of strategy making and SPS. Therefore, a conceptual framework was proposed to characterize the linkages between the different stages of the strategy process and SPS. The framework was then tested using 122 German MNCs. It was found that the design of the strategy process and the usage of certain tools and concepts significantly affect SPS. This suggests that MNCs should deliberately design strategy processes in a certain way to derive promising strategies and to increase performance. However, a closer look at the data set revealed that the responding firms show deficits at the different stages of the strategy process. Therefore, several starting points to improve strategic decision-making processes in the future can be identified. In the following, we intend to analyze these deficits and outline the most important contributions our study has for theory and practice.

A first and yet unexpected finding of our study is the simplicity among the tools and concepts applied in the strategy process. The results clearly show that managers prefer to draw on simple tools to analyze the external and internal environment of the firm and to prepare for strategic decisions (see Fig. 3). SWOT-Analysis (89%), Performance Measurement Systems (83%), Benchmarking (79%) or Portfolio Analysis (62%) are the most prominent concepts. However, simplicity in strategy making creates difficulties for companies facing dynamic and quickly changing environments and does not lead to an increase of SPS and performance. Our results show that there is no significant relation between SWOT-analysis or traditional Portfolio analysis and an increase of SPS. An application of these prevalent tools in fact seems to be only the minimum in strategic management. To increase SPS and performance significantly, MNCs should draw on more sophisticated concepts like scenario analysis (49%), Decision Tree-analysis (20%), Experience Curve (15%) or Conjoint Measurement (10%). These concepts appear to be more appropriate to capture and handle internal and external complexity. Particularly the application of scenario analysis positively correlates with SPS and provides MNCs with the opportunity to better understand critical uncertainties they face in the future. Of course, scenarios cannot predict the future but they can enhance sense-making in fast-changing and complex environments by outlining plausible ways to act (MacKay & McKiernan, 2004). We believe that the limited current use of more advanced methods and concepts in strategic management is due to a strong belief in the suitability of well-known and aged tools. This historical constraint, also known as competence trap, results in firms responding to new developments by using the concepts or "routines" that were learned in the past (Barnett & Hansen, 1996).

As a second important result our findings confirmed the positive effect of an integration of both simple and advanced concepts in the strategy process on SPS. Most of the respondent firms already combine several tools to analyze their situation and to derive strategies (83%). This result is not a surprise as MNCs have to generate a comprehensive picture of their internal and external environments. However, 17% of the MNCs do not follow this integrative approach. These findings correlate with the above mentioned scepticism against more complex tools in strategic management (e.g., scenario analysis or

advanced IT-analysis) which support an integration of different means of analysis. These concepts are already existent today and could enable firms to make use of more appropriate information to develop successful strategies.

A third significant outcome of the study is that the deliberate development of alternative strategic scenarios leads to higher SPS. However, we were surprised to find that in 62% of the responding firms no alternative strategies were developed. This leads to the conclusion that there obviously exists a strong belief in the lasting appropriateness of strategies. This result is somehow startling because 76% of the MNCs mentioned that they are confronted with very dynamic and complex environments. One would expect that firms respond to high levels of uncertainty by developing at least some alternative plans to be prepared for different future situations. Again those results refer to scenario analysis, IT-simulation or Conjoint Measurement as appropriate tools to explore the ever-changing strategy contexts and to enable MNCs to develop alternative strategies. The surveyed firms, nevertheless, appear to have a strong deficit in this area of their strategy processes. So far only a few firms actually apply those tools (see Fig. 3).

Fourth, the results of our study highlight the relevance of taking competitors' reactions seriously into account while selecting and formulating the firm's strategy. This appears to be especially true in competitive industries where market concentration is high and success heavily depends on the reaction of competitors. Interestingly, only 69% of the companies claimed to generally consider competitors' reactions which leaves about one third of the overall sample without any reflection of that kind during strategy formulation. Our findings also suggest that SPS is even higher when MNCs apply an interactive approach to take competitors' reactions into account. However, only 30% of the surveyed firms actually investigate what kind of consequences current activities and intended strategies of competitors have on their own strategic decisions. This result is particularly surprising when we bear in mind the fact that every strategic decision is confronted with the problem of what is usually called double contingency (Parsons & Shils, 1951). Ortmann & Salzman (2002, p. 208) characterize a double contingent situation as follows: "One firm will make its action dependent upon its competitor's action, and vice versa, and none of them knows or can have full knowledge about what the other will do – each conditions its actions on the actions and outcome of the other and factors in the environment". Subsequently, MNCs have to acknowledge their rivals' reactions because the competitive environment continuously changes while firms are trying to execute their strategies. To address this deficit in the strategy process, we suggest that firms should foster interactive simulations of actions and reactions of rivals to increase their SPS and performance. Of course, the results of such an analysis can not forecast one best way, but rather produce plausible strategic options for the future.

Our fifth and one of the most remarkable findings is that the use of advanced IT significantly affects SPS but only a very small number of the MNCs actually refer to such tools to support their strategy processes. A closer analysis of the data reveals that only 20% of the firms deliberately apply IT-simulation in strategic analysis and only 4% refer to IT to simulate future strategic scenarios at the strategy formulation stage. Considering the fact that most MNCs are familiar with advanced IT (e.g., ERP systems) as a means to manage their operational processes, this result is clearly unexpected. Particularly in the light of the aforementioned need to integrate a good range of different tools and techniques, we believe that MNCs will benefit to a great extent by using advanced IT-simulation to support their strategic decision-making processes. Advanced IT can prove to be useful in visualizing strategic options and thus creating a common understanding and facilitating communication. In addition, advanced IT can support the understanding of internal and external environments as well as the complexity of strategies and the strategy process itself. By this, it is expected to have a reducing effect on overall uncertainty in the strategy process (Huber, 1991). Yet, even though the possibilities offered by new IT, the knowledge and experience of the decision-maker remains the critical issue to assure the appropriateness and success of strategies.

Sixth, the results of our study refer to the strategy implementation stage as the most error-prone in practice. Asked for the perceived significance of different tools for a successful strategy implementation, medium and short-term planning, controlling, budgeting, and incentive systems prove to be important and were widely used by the firms (see Fig. 4). However, a closer look at the data shows that around 70% of the responding firms acknowledge the high relevance of integration and training of employees but only 51% of the firms communicate new strategies and only 42% provide training measures to enable personnel to execute strategies. Considering the highly significant correlation between both implementation tools and SPS, two questions arise: 1) How should employees execute strategies when management does not provide relevant information? 2) How should employees develop promising strategies without a thorough understanding and knowledge of the strategy process of the firm? Concerning this stage of the strategy process, we argue

that by fostering integration and training of employees, a stronger sense of identification with new strategies can be conjured throughout the company. Consequently, these problems should be thought of very early in the strategy process.

Seventh, our findings confirmed that SPS significantly depends on an ongoing evaluation of assumptions and outcomes of the strategy process as a whole. With regard to strategic control, our recommendation of critical reviews and feedback on strategic measures and underlying assumptions might seem basal from a theoretical perspective but as the findings indicated are not yet standard in all MNCs. Although 76% of the firms expressed to apply such a contemporary approach of strategic control, almost one quarter of the responding firms does not update environmental assumptions on a regular basis to be able to adapt their strategies accordingly. A possible explanation could be seen in a strong dissatisfaction with the strategy process, so respondent firms rather stick to the already developed strategy instead of undergoing the process again for an adaptation or renewal of the strategy.

As an outcome of these findings we can summarize that our study reveals seven critical factors in particular which have a positive impact on SPS and provide a starting point to improve current strategic management practices. The results of our investigation indicate that a deliberate redesign and an investment in strategy processes can make a difference and lead to superior performance. MNCs should draw on more sophisticated and integrative tools and try to use advanced IT to support strategic decision making. They should develop alternative scenarios and take competitors reactions seriously into account by applying tools like scenario analysis. To promote strategy implementation the communication of company strategies to employees and training measures should be fostered. Last but not least, the whole strategy process needs to be embedded in an advanced concept of strategic control to assure a continuous development of both the derived strategies and the strategy process itself.

Conclusions

This article provides insights into status quo and deficits of strategic management practices in German MNCs. In the light of our findings we see a strong need for a thorough modernization of strategy processes in German MNCs to overcome the current situation of using methods and concepts of the Industrial Age to make decisions for the present and the future. Whereas today hardly any firm would rely on the manufacturing concepts and production technologies of the 1970s or 1980s, they still seem to adhere to the strategic concepts of that era. Albeit the opportunities offered by new IT, in terms of integrating strategic concepts and simulating different scenarios, they remain widely unused. This is surprising because a closer look at the literature reveals that firms whose type of planning approach closely resembled the theoretical concept of strategic management at that time were found to exhibit superior financial performance (Rhyne, 1986; Behnam et al., 2004).

Finally, we would like to point out that our study has a number of limitations. Although our four stages model has proven to be useful for studying strategy processes, in practice a distinction of the strategy process in more than four stages could provide additional insights. The results of the empirical study should also be viewed with some caution, as we can only prove association, not causality. Yet, generalization could be assumed as our sample includes differently sized firms from different industry backgrounds and with different customer segments. Another open question is whether the above derived recommendations to design strategy processes should be applied to MNCs and subsidiaries from other countries. In our study we focused only on Germany-based MNCs and did not take cultural differences into account, although culture heavily affects management practices (Hofstede, 1993). However, the implementation of strategies often fails not because of economic but intercultural conflicts (Kim & Mauborgne, 1993). In the light of this, a generalization of our results across cultural borders appears to be constrained. Future research should therefore address the question if and how MNCs can handle cultural differences in strategic management and how tools and concepts can be applied to national circumstances. Based on a culturally sensitive approach, at least some strategic management practices seem to be applicable to different national environments (Hofstede, 1993; Tsang, 2002). Lastly, our study focused solely on the strategy process perspective. Recent research emphasizes that the strategy context, the set of circumstances influencing strategic decision making, also needs to be explored in more detail (MacKay & McKiernan, 2004; McKiernan & Carter, 2004). Contemporary strategic management therefore should focus on both the context and the process of strategy to develop promising content.

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