STRATEGIC MANAGEMENT, SYSTEMS THINKING, AND MODELING

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Summary

The article identifies strategizing as a core process of strategic management. It contends that strategizing should be more than strategic planning and therefore needs strategic thinking which is systems thinking foremost. Four streams of influence on strategic thinking are discussed based on insights from strategy research. Furthermore, the article concentrates on two aspects of strategizing: strategic consensus and strategic learning. Empirical findings concerning the process of building consensus and the relationship between strategic consensus and organizational performance are reflected. The article highlights the potential of computer simulations for supporting consensus building and strategic learning as well as the usefulness of system dynamics models as aids for strategizing. It contends that the concept of strategy forum together with group model building may be an effective approach to build strong broad-based strategic-thinking capabilities. Finally, the article identifies a need for more evaluative research and proposes action research in the organization.

1. Strategizing as a Core Process of Strategic Management

In its most common sense strategic management may be defined as an attempt to proactively direct the future development of an enterprise, respectively its business units, thereby maintaining and extending competitive advantages over rivals in an ever changing arena of competition (or coopetition). According to the two most accepted views in strategy research, competitive advantages result either from attractive positions

of a company in an industry or from distinctive resources (competences, knowledge bases etc.) of that company. Both views should not be seen as conflicting, but more as complementary in the sense of two sides of a coin. Attractive market positions can only be occupied and maintained with distinctive resources, but these alone won´t pay if no opportunities for their application can be identified. As competition is basically a dynamic phenomenon, driven by sequences of action and reaction, competitive advantages will erode over time, if not cyclically renewed. In times of fast change and hypercompetition these cycles become very short. Here, the successful development of a company rests upon its ability to continuously create new sources for competitive advantages. In such a context corporate renewal turns out to be the main task of strategic management, and strategizing as a core process of strategic management becomes a critical exercise for sustained corporate success.

Traditionally, strategizing (as analysis and synthesis) has usually been an episodic exercise (either occuring in periodic cycles or initiated by repeated crises), mainly done by experts in staff groups and/or by outside consultants. This way strategizing has a tendency to become monopolistic and to focus more on analysis than on synthesis. As a consequence managers won´t get an opportunity to develop a competence in strategic thinking. Whilst this interpretation of strategizing may be sufficient in a stable environment it will probably lead to failure in a turbulent environment. Here, strategies have to be changed more often. These changes, we contend, will have a better chance for success in companies that have democratized strategizing and thereby have made strategic thinking to a core managerial competence.

In times of rapid change strategies apparently become more dynamic and more complex, too. The effectiveness of a chosen strategy will not only be determined by the content of this strategy, but also by the ability to its flexible adaptation according to anticipated actions and reactions of competitors as well as changing requirements of customers. Without applying a dynamic perspective of strategies managers run the risk to stick with strategies of the past, even if these have already been proved as being unsuccessful. Strategies have to take into account many aspects: issues inside and outside the firm, hard and soft facts etc. Once a new strategy is formulated it must be aligned with the company´s resource-allocation process to make implementation possible. In order to evaluate its effectiveness a causal chain of performance measures, as included in the `balanced score card`, should be established. Such a measurement system combined with a system dynamics model may support strategic learning, which is especially necessary in turbulent task environments. Here, strategists are careless if they only look at their business world just from one perspective. In doing so they will not be able to initiate real strategic change which requires inventing new business models or creatively rearranging old ones, and they will overlook opportunities for new profit patterns. These arguments underline the need of systems thinking for strategizing which is strategic thinking at first.

2. Theory and Practice of Strategic Management

Strategy is not about plans, but about insights. One reason that successful strategies are rarely developed presumably results from the fact that strategic planning is often confused with strategic thinking. Both management activities are fundamentally

different. Whereas strategic thinking is a process of discovering insights, strategic planning is the process of turning that insights into action. Strategic thinking is about synthesis and according to Mintzberg results in "an integrated perspective, a not-too-precisely articulated vision of direction". Strategic planning, in contrast, is about analysis and programming - the specification of already existing strategies.

Strategic thinking is the most important input for strategizing. Therefore it shouldn´t be outsourced, neither internally nor externally, but cultivated as a core competence. Senior line managers need to engage in strategizing themselves and take personal responsibility for developing strategic insights and for strategic learning. Strategic changes require new understanding by capturing knowledge from all sources - soft insights from experience as well as hard data from market research and the like.

The crux is that once a company has found a successful strategy, it will keep it, not change it. This tendency leads to freeze a dominant business logic. Therefore strategy changes usually require unfreezing such a dominant logic via learning and unlearning. Another difficulty results from conflicting opinions in top management teams. Strategy changes usually necessitate a renewal of strategic consensus.

Before discussing how these processes of strategic learning and consensus building may be supported by concepts of systems thinking (i.e., system dynamics) we first will shortly outline this and other important spheres of influence on strategic thinking. They are illustrated in figure 1 showing learning and understanding as the main aspects of strategic thinking and four streams that have an influence on it. The latter may be divided into a research hemisphere, and a hemisphere which represents more practical aspects. Whereas the research hemisphere implies "economizing" the hemisphere of practice is the locus for "strategizing".
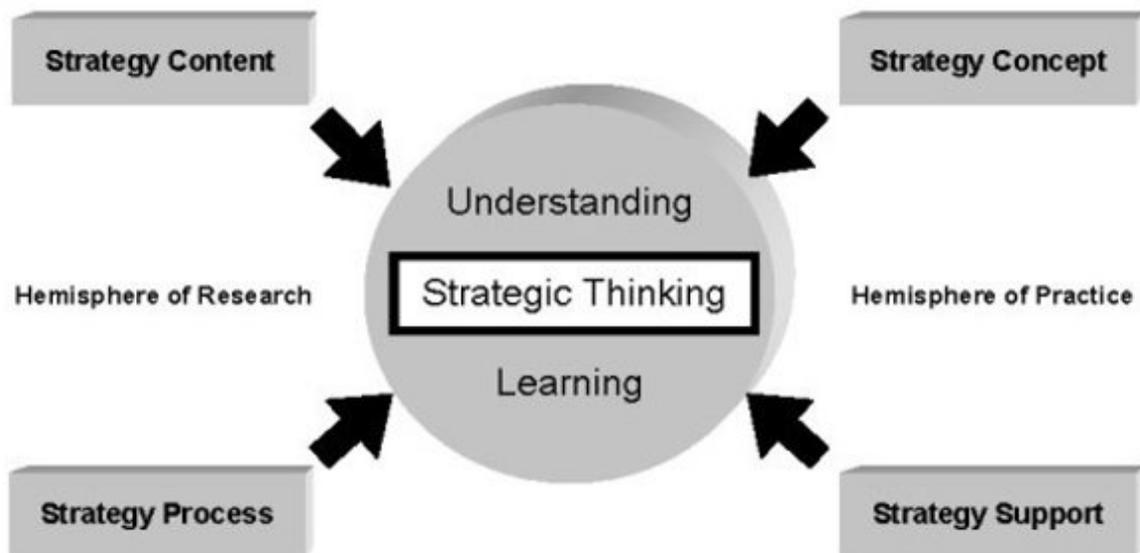

Figure 1: Spheres of influence on strategic thinking

2.1. Theoretical Foundations

Research on strategy devides into two schools: content and process. The **content-driven** school represents the view of strategy which focuses on the development of competitive superiority. It is strongly influenced by concepts of equilibrium, stability and control developed in the field of economics. According to the assumptions of economic rationality companies are rent-secking systems which aim to achieve a set of objectives, with profit maximization traditionally or share holder value maximization more recently foremost.

Within the content school one can distinguish two main streams of research. First there is the market-based view developed from the structure-conduct-performance paradigm and strongly influenced by Porter´s theories of position and market power. The second stream of research is a counterpart, based on the resource-conduct-performance paradigm, which can be traced back to the work of Penrose and has been developed into what has become termed the resource-based view. This stream of research has been popularized by the concept of core competencies first discussed by Prahalad and Hamel. Both research traditions attempt to explain the sustained superior performance of firms. The leading hypothesis is that sustained superior performance arises from sustainable competitive advantages. Theories differ as to the sources of competitive advantage. Whereas superior performance takes the form of monopoly rents to protected market positions in the market-based view it represents Ricardian rents to idiosyncratic firm-specific resources in the resource-based view.

In their original form both views of strategy are more or less static. In contrast, newer developments in the form of the conflict-based view and the knowledge-based view adopt a more dynamic perspective. Especially the knowledge-based view pursuits a dynamic view of strategy by combining elements of resource-based thinking (that primarily focuses on intangible resources such as tacit knowledge) and organizational learning (see figure 2). This movement which also draws on a more evolutionary view of economics is clearly towards a paradigm which will reintegrate process and content. In the dynamic strategy view superior performance takes the form of Schumpeterian rents due to the dynamic capability to renewal advantages over time.

The **process-driven** school is more eclectic in its origins, with influences from evolutionary economics, complexity theory, and concepts of systems thinking such as system dynamics among others. Similar as the content school the process school has two main streams of research. First, there are researchers who focus on how cognitive and social phenomena such as bounded rationality, politics, chance, and even luck influence the way in which strategic decisions are made. An output of this research is a bewildering array of competing or over-lapping conceptual models of strategy-making. The second stream of strategy process research is concentrated on organizational change, strategic innovation and corporate renewal.

The content and process views of strategy are complementary. More recently, there are clear signs that both schools of research may learn from each other. Such a mutually learning could progress towards a more complete theory of strategy which in turn would

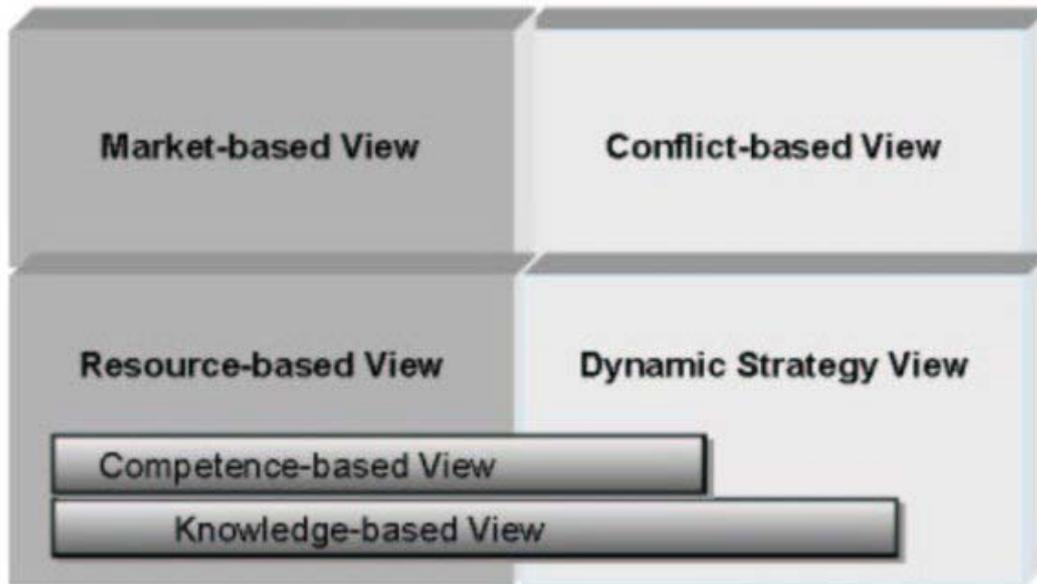enhance the development of more context-specific strategy concepts and of better strategy-support tools.

Figure 2: Views of strategy from strategy content research

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Biographical Sketch

Prof. Dr. Erich Zahn studied management science and business administration (Dipl.-Kfm.) at the University of Mannheim and at the Sloan School of Management, M.I.T.. After his graduation to Dr. rer. pol. at the University of Mannheim he got an appointment as Assistant Professor at the Sloan School of Management, M.I.T. and there he worked as a member of an international research group. This group published the first report of the Club of Rome "The Limits to Growth".

1976 he completed his "habilitation" at the University of Mannheim. Since 1976/77 he has an appointment as a full - professor of general management and corporate planning at the Universität Stuttgart.

Also, he is President of the IFUA GmbH, a consulting company specialized in strategic management, and a member of the advisory board in several companies. His research and teaching activities are in the area of strategic management, organizational learning and strategy support systems, including systems thinking and modeling dynamic systems.