

Zeitschrift: Studies in Communication Sciences : journal of the Swiss Association of Communication and Media Research

Herausgeber: Swiss Association of Communication and Media Research; Università della Svizzera italiana, Faculty of Communication Sciences

Band: 1 (2001)

Heft: 1

Artikel: The concept of foresight in times of uncertainty and ambiguity

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DOI: <https://doi.org/10.5169/seals-791138>

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MARKUS VENZIN, *Studies in Communication Sciences 1 (2001) 167-194*

MARKUS VENZIN*

THE CONCEPT OF FORESIGHT IN TIMES OF UNCERTAINTY AND AMBIGUITY

When inquiring successful managers about the way a new business idea developed, they often answer "It was a gut feeling". But how does an idea grow in the gut? And how may it be transferred from there to the rest of the organization? Strategic management theory in its oversimplified essence used to consist of predicting the future and then developing ways to position a firm in such a probable future. As in most industries predictions become increasingly inaccurate, practitioners as well as academics search for substitutes for strategy, or at least for alternative ways to develop foresight. This paper deductively explores such alternative foresight processes and illustrates them by the description of the innovation process of the small tourist village St. Moritz. The importance of the company's intangible resources such as knowledge is stressed. Furthermore, it is claimed that foresight partly resides and grows in the body. Therefore, more research is welcomed into "physical experiences" in addition to pure cognitive learning experiences in strategy processes. Some alternative foresight approaches are discussed: early recognition, networking, broad involvement, physical experiences, experimentation, hindsight, and the early relation to future tasks. These and other approaches need to be tested regarding their applicability to developing foresight in times of uncertainty.

Keywords: foresight, uncertainty, strategy, process.

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Management teams often experience difficulty in sustaining conversations about the future. The dynamics of changes has thickened the haze of uncertainty and believing in traditional strategic forecasting tools becomes increasingly hazardous. As a consequence, strategy meetings often center around short-term issues. The desired output of most strategy processes however is reduced uncertainty and some kind of agreement of the long-term direction of the company. A shared vision of the future is nevertheless hard to find in most firms. The communication of a picture of the future across the hierarchy risks to become an organizational ritual without much value added. In times of uncertainty and ambiguity where foresight may be reduced to a “gut feeling”, hard to express in words, the communication process becomes challenging. Distributing some leaflets with vision statements, an article in the in-house magazine once in a while, or some number-crunching in strategy meetings don’t do anymore. Developing a shared vision means to develop redundant information about the future, or shared meaning that is stored in more than one brain or body. Yet what does it take to create redundant information of a “gut feeling”? How can one communicate what is hard to put in words? How did Shakespear’s Romeo declare his deep love to Juliet?

Words may help, but common experiences are the clue for the creation of shared meaning. Meaning is generated if people look at what they have done and then try to make sense of these events: “Although people may not share meaning, they do share experience” (Weick 1995: 188). The more the message is afflicted with uncertainty and ambiguity, the more difficult it is to create similar interpretations among organizational members. Therefore, what a member of a group has in common with other members of the same social group is not so much a set of shared beliefs or values as such, but a set of shared semiotic procedures or ethno-methods (Shotter 1993: 46). Put somewhat more succinctly, groups may share a way of meaning creation and a certain set of ordered forms of communication.

The aim of this article is to look at those ordered forms of communication while developing foresight. The content as well as the processes of communication have changed in the past decade: We move from strategic planning to strategic thinking; from forecasts to foresight; from extrapolation of past trends to the development of human intuition and awareness; from written strategic plans developed by the strategic staff to embodied knowledge about the future developed through multiple conversations throughout the organization; from a pure focus on products and markets to organizational resources as a source of orientation.

1. In search for strategy tools in the age of uncertainty

The craving for a glimpse of the future has a long tradition in human history. People are accustomed to ask their gods, priests, or wise men about the nature of the future. They used chicken-bones, crystal-balls, palmistry, or stars as a means of divination. Since the beginning of the field of Strategic Management in the late 1960s and early 1970s, new theories, methods and concepts have been developed that aim at explaining differences in firm-performance and help managers to think about the future of their companies.

“Once societies turned to kings, shamans, priests, and oracles for wisdom. People had a ‘calling’ to be wise. Now each of us is called” (James 1996: 25).

Yet most strategic tools derive from the age of classical micro-economic theory, a time when the most important resources within an industry were tangible, tradable, evenly distributed, and stable. We are currently witnessing tremendous transformations in our society as our economies venture into the knowledge-era. The characteristics of these economies are different from those de-

picted in classical, and even neo-classical economic theory. Unlike traditional resources, knowledge is highly dynamic, intangible, at times not tradable, and very unevenly distributed. New organizational forms and entire industries surface for a short period of time and are then partly merged again into a network of alliances. In these economies, managers seek for orientation; but traditional forecasting tools such as trend extrapolation, regression analysis, or technology forecasting are mostly insufficient to guide them into the future, because they have been developed in a different era, under different assumptions as described by Leonard-Barton:

“Today’s managers are constantly abjured to ‘stretch the envelope’, manage the ‘cutting edge’, or face down ‘unprecedented’ competition. The future for which they reach is far from clear, however. Crystal balls may be an obsolete forecasting technology, but our current tools are little better” (Leonard and Barton 1995: 111).

These observations beg a critical question: How can we prevent strategic management from becoming antiquated in the era of the knowledge economy? Phrased more ambitiously, how do we increase the relevance of strategic management theory for managers in the knowledge economy?

The resource-based approach to strategic management is a promising attempt to comply with the changed characteristics of the economy. Strategy is developed “inside-out”, i.e., based on the companies’ resources and not mainly on the organizational environment (Mahoney and Pandian 1992). More emphasis is laid upon intangible resources such as competence, skills, reputation, patents, or corporate culture as sources of competitive advantage (Hall 1994). Knowledge represents an important source of orientation for the future development of the company. “Competing for knowledge foresight” stands for the firm’s capacity to image what knowledge will have the potential to provide competitive advantage in the future. However, conceptual tools that support the creation of knowledge foresight are still rare. After a brief discus-

sion of the importance of resources for the strategy of a company, and the discussion of the foresight concept, this paper outlines various processes that may foresight such as “early recognition”, “networking”, “broad involvement”, “physical experiences”, “experimentation”, “hindsight”, and the “early relation to future tasks”. These processes will be illustrated by means of the case of a small touristic village in the Swiss alps: St. Moritz. This case is purely illustrative and does not represent evidence of an empirical nature. The example of St. Moritz has been included to further illuminate the applicability of the theoretical foresight processes. This article concludes with indicating how managerial roles in the foresight process change with the increasing turbulence of the environment.

2. The contribution of the resource-based view of the firm

So far, most approaches in strategic management have concentrated on placing bets about what will be an organization’s next primary task, product, customer, or market (Ciborra 1996: 114). But as in times of ambiguity and uncertainty these future tasks become increasingly obfuscated, it seems to be more fruitful to derive orientation from knowledge as a competitive layer. Hence, the question of strategic conversations might change from “What are we going to do in the future?” to “What and how are we going to know in the future?”.

Although there is a current interest in the competitive advantage that knowledge may provide for organizations, the concept of knowledge is complex, and its relevance to organization theory has been insufficiently developed (Blackler 1995: 1021). Management theory was long dominated by a focus on the company’s environment rather than on the company itself, as manifested in the tremendous impact of the writings of Michael Porter. The market is where the true sources of competitive advantage should be sought. Yet over the last 15 years some scholars have estab-

blished a second opinion of where the true sources of competitive advantages are to be found. Although its roots can be traced to the 1950s (Selznik 1957; Penrose 1959), the “resource-based view of the firm” did not really surface in academic discourse until the early 1980s. Its proponents explained competitive advantage not as deriving from different product-market positions but from differences in equipment and combinations of critical organizational resources (Wernerfelt 1984; Dierickx and Cool 1989; Amit and Schoemaker 1993). As opposed to the “environment-based view” this perspective allows sustainable differences in the resource endowment, since some resources may not be easily transferred or imitated.

Barney’s effort (1991) to evaluate resources in respect of their potential benefits for generating sustainable comparative advantage was a milestone in developing a more practical approach to an inward-oriented strategic management. He developed four criteria for assessing what kind of resources would provide *sustainable* competitive advantages: (1) value creation for the customer, (2) rarity compared to the competition (3) imitability and (4) substitutability. Of course, the last two criteria are the decisive factors for the question whether potential competitive advantage can also be sustainable. Therefore, imitability and transferability of resources have received a great deal of attention in the management literature. In sum, the contribution of the resource-based view is to connect the concept of sustainable competitive advantage with imitability and transferability of resources.

As a consequence, “invisible” (Itami and Roehl 1987) and “intangible” assets (1992; Hall 1993; 1994) and “imitation impediments” (Rumelt 1984; 1987) for example, licenses and patents, data bases, individual skills, and personal or organizational networks have gained increased attention in strategic management: “As the literature makes increasingly clear, a knowledge-based view is the essence of the resource-based perspective. The central theme emerging in the strategic management resource-

based literature is that privately held knowledge is a basic source of advantage in competition" (Conner and Prahalad 1996: 477. If knowledge is considered to be a resource which is potentially value-creating, rare, and difficult to imitate or substitute, the management of knowledge becomes a central concern of any management in most companies. But what does managing knowledge, or knowledge management mean? How can managers transform these hidden assets into increased business? How can knowledge be exploited and new products, services, and processes developed? Coming back to our initial question: How can a company develop knowledge foresight?

Although the importance of knowledge for strategy is widely accepted, research so far has not focused on exploring how this might influence strategic processes. The shortage in models that link knowledge to strategy may exist at either end. One reason for the hesitant interplay between knowledge and strategy in companies may subsist on a lacking, or a too abstract strategic intent (Leonard and Barton 1995: 140). If a company does not know where to go, it is hard to identify what knowledge will be important, or core, in the future. Technology - perceived as 'bodies of knowledge' (p. xii) – "[...] has no *obvious* relevance to a core capability, no *apparent* connection to competitive advantage" (Leonard and Barton 1995: 140). Knowledge foresight processes consequently need to do without a clear picture of future markets and products. Instead, assuming the knowledge is the source of orientation, firms need to think about their future knowledge first and then discuss in what markets they will be active in the future. But how can a firm develop knowledge foresight without a clear product/market vision?

3. The concept of foresight

The foresight process aims at creating awareness for and the clarification of the dynamics of emergent situations (Slaughter

1990: 801). A difficult task, in a dynamic world, in which one can never fully understand what is happening at a given moment, because what is happening is unique to that time (Weick 1995: 148). Managers are unable to collect 100% of the relevant information necessary to completely understand an (emergent) situation. If every situation is perceived as emergent, and if this situation can only be filled with meaning after it has occurred, the importance of prediction or forecasting is of limited value. Consequently, prediction perceived as a confident statement about the future, and forecasting defined as extrapolation from the past into the future by the application of “if ... then” relations may be appropriate for systems that can be fully measured or understood (Slaughter 1993: 293). Some writers in the field of management therefore argue that it might be problematical to think about the future before it has occurred and therefore propose “future perfect thinking” (Weick 1995), or thinking in “future tense” (James 1996). Similar to scenario planning, managers are asked to think as if a specific future state already has occurred, and then connect back to the present state.

Assuming that it is difficult or even impossible to achieve foresight, the desire to reduce uncertainty and ambiguity is deeply imprinted in the brains of human beings. Uncertainty arises from the perceived inaccuracy in “estimates of future consequences conditional on present actions” (March 1994: 174). Uncertainty may be reduced by thinking and talking about “preferred” futures rather than most likely futures. Foresight is developed to create futures one *prefers or even desires*, rather than having to adapt to likely futures created by others. The foresight process emphasizes the possibility of influencing/creating one’s own system.

The concept of “foresight” as described by Hamel and Prahalad (1994) is an attempt to boost the impact and the efficiency of conversations about the future. “Competing for industry foresight”, in their view, is essentially competition for “intellectual leadership” which allows a company to envisage the future. In this way, a company may gain control over the evolution of its

industry which is mainly characterized by three issues; (1) future types of customer benefits, (2) the competencies needed to offer those benefits, and (3) the configuration of the customer interface (Hamel and Prahalad 1994: 73). Foresight is developed through eclecticism, a liberal use of analogy and metaphor, an inherent contrarianism, the desire to guide the customer, and a genuine empathy with human needs. Foresight is the product of a childlike innocence about what could be and should be, curiosity, and speculation (Hamel and Prahalad 1994: 82/3). In sum, the quest for industry foresight is the quest to develop a “gut feeling” for what does not yet exist.

Hamel and Prahalad apply the term “foresight” slightly differently from the way in which it has been used in previous articles. In the field of futures studies, foresight is seen as a human capacity and skill which is deployed in many ways and protects people from making certain mistakes - it is a mental process (Slaughter 1993: 293). A typical example of foresight is taking out an umbrella before leaving the house in case it might start raining. Foresight may be distinguished from mere prediction and forecasting: the former is a confident statement about the future state of affairs, best confined to systems that can be fully measured or understood. Forecasts are based on the careful analysis of the past. “If... then” relations are constructed and extrapolated into the future. The concept of foresight is again distinct from forecasts:

“Foresight involves a conscious effort to expand awareness and to clarify the dynamics of emerging situations. The foresight principle is called into play by irreducible uncertainties created by the precariousness of life. Foresight is ‘common sense’ in that there is obvious merit in seeking to avoid dangers and reduce risks. However, the principle is easier to implement on the individual level than at the social level” (Slaughter 1990: 801).

Hence, foresight has not always been the means to create the future as Hamel and Prahalad use the concept. It is more frequently used to express the human ability to foresee the future in order to protect oneself from harm.

Ralph Stacey (1996) on the other hand flatly rejects the existence of foresight. He argues that it is impossible to foresee the future of a complex system with free agents. If an organization is looked upon as a complex adaptive system, a system that produces changeable and diverse order, whose behavior is not deterministic and hence cannot be predicted, then foresight changes its nature. Foresight has to be reduced to the mere recognition of patterns in a stream of self-organizing, spontaneous action with emerging order (Stacey 1993). In fact, Stacey goes even further when he states that “[...] free systems cannot have much in the way of foresight and hence cannot be ‘in control’ (p. 189).” Consequently, it might be impossible to develop foresight at all, and instead of searching for foresight, it might be more meaningful to deal with the problem of how to live without it (McDermott 1996: 194). Considering that companies somehow have to make decisions - such as the allocation of resources - which need to be based on assumptions about the future, it might however be difficult to live without foresight. The next section therefore attempts to explore ways to create foresight.

4. Developing foresight skills

Understanding the future means at first understanding the past. Organizations as well as individuals tend to search for a sense of the past which illuminates the present and directs attention towards the possibilities of the future. Firm-specific resources such as organizational knowledge are path dependent, hence restricted in their evolutionary scope. Past decisions and actions to a large extent prescribe the future development of the company. It might therefore be difficult for companies to develop fundamentally new resources in a short period of time. The probability increases that the economy will gradually lock itself “[...] into an outcome not necessarily superior to alternatives, not easily altered, and not entirely predictable in advance” (Arthur 1989:

128). A firm which is excellent in the dominant discipline (e.g., marketing) reinforces the development of this particular field, but at the same time inhibits the development of other expertise (e.g., technology). This way a company's core-competence may turn into a core-rigidity (Leonard and Barton 1992). A similar argument is outlined in Cohen and Levinthal's study on "absorptive capacity" (1990) in which the authors show that innovative performance is path-dependent. They argue that an early lack of investment in an area of expertise may foreclose the future development of a technical capability in that area (p. 128).

Although the increased path-dependency leads to a narrower set of options, on the other hand it lends increased importance to strategic management. Because the company is, at least on the knowledge level, path-dependent, it is more important to blaze a trail in advance. The ability to recognize early new knowledge pieces, and imagine how they could develop in the future, hence to create foresight, may therefore be the distinguishing factor in a knowledge-driven economy. The following sections describe distinct selected approaches how companies may attempt to develop foresight.

(a) Early recognition

To recognize early upcoming knowledge, managers may develop a knowledge seeking attitude. The early recognition of knowledge requires the skill to feel to some extent uncomfortable with one's own actions and thoughts, to relax and approach daily activities with humor, to maintain a variety of activities at the same time, and to use multiple sources of information. These "perspective skills" (James 1996: 49) help managers to recognize the factors that may be distorting their perceptions, decrease the negative effects of "core rigidities" and support thinking outside the "dominant logic" (Prahalad and Bettis 1986) of the firm.

Early recognition capacities may further include the ability to identify emerging patterns by extension, elaboration (modifica-

tion, further developing, or perfecting existing product/services), recycling (old patterns/trends come back), pattern reversals (opposite trends as responses to new trends; e.g., steakhouses as an “answer” to veggie burgers), strange attractions (odd combinations of patterns or trends that seem unpredictable), and chaos (expansion of the focus of observed patterns) (James 1996). Early recognition further requires cultural knowledge as described below:

“The power of myth is such that most people are unable to separate what they believe into ‘this is a myth’ and ‘this is real’. Myths get in the way of understanding what is happening around us. When we try to process new information about our lives or our work, we naturally filter it through our existing beliefs - including our full collection of myths. They cloud our perceptions, tap our emotions, and make it difficult to see reality” (James 1996: 75).

Myths strongly influence how our vision of the world is created. Cultural knowledge may be developed by studying children’s myths, reading science fiction, surveying arts, watching for new symbols, surveying advertising, watching diverse information channels, observing situation-comedy trends, noticing best-sellers (especially children’s books), noticing new magazines, picking up on anomalies, opposites, and tensions, watching trends in other countries (James 1996).

(b) Networking

In a recent study, Liebeskind et al. (1996) examined two highly successful new biotechnology firms regarding their way of acquiring new scientific knowledge. The study reports that the scientists in these two firms engaged in a large number of collaborative research efforts from various places, mostly universities, but also with scientists from other companies. The use of boundary-spanning social networks by the companies analyzed increased their learning capacity and their organizational flexibility. Network exchanges extend the scope of organizational learning and

facilitate the integration of expert knowledge from outside. One of the more interesting findings for this research is that hardly any of the individual-level exchanges of knowledge had a market agreement. This could mean that individual networking with different partners in distinct fields is a good way to get new knowledge and test it on a “low scale”, i.e., without high financial commitment.

(c) Broad Involvement in future search conferences

Creating foresight includes the development of a shared vision of a preferred future. Individual views on the future are respected to attract knowledge employees that attempt to fulfill themselves in an organization and thereby maintain and further develop their own identities. Yet how can these preferences be detected, and more importantly, how can they be reduced to a common denominator? Future search conferences (Weisbord 1987) attempt to commit the entire organization for a vision of the future. Such large scale conferences bring people closer together in their goals and attitudes. Face-to-face discussions and the focus on preferred rather than most likely futures are increasingly important. All organizational members who have an active stake in the sponsoring of the organizations future should ideally be part of the process. However, future search conferences are not problem-solving events. People involved have to 1. build up a database, 2. look at it together, 3. interpret what they find, and 4. draw conclusions for action. These four steps are taken for the past, present, and future on individual, company, and industry level.

(d) Physical experiences

New data, experiences, and observations are constantly entering somehow our minds and bodies and remain there in some form. The study of Pisano (1994) gives empirical evidence from 23 process development projects in pharmaceutical companies for the proposition that approaches to experimentation differ accor-

ding to the nature of the underlying knowledge. “Learning-by-doing” has proven to be a more appropriate strategy for acquiring requisite feedback in an environment where prior knowledge is weak. In contrast, “learning-before-doing” (e.g., simulation, laboratory experiments) is more suitable in a knowledge environment where reliable theoretical models and heuristics exist. These results demonstrate that there is no best approach to knowledge development (learning-by-doing vs. learning-before-doing), because learning strategies are contingent on the actual underlying knowledge environment. Developing knowledge foresight calls for more learning-by-doing approaches. Such experiences may be labeled “physical experiences” as opposed to pure cognitive learning experiences, because these approaches strongly involve physical presence and generate knowledge that is to a large extent tacit in the bodies of the organizational members.

(e) Experimentation

“Learning-by-doing” is more expensive than the learning-before-doing strategy. Therefore experiences are needed that allow physical involvement as well as a low financial charge.

“The more uncertain the future, the more essential becomes an environment in which *everyone* in the company is primed for experimentation and learning and in which prototyping is not a specialized, technical activity relegated to the engineers but *a way of thinking*” (Leonard and Barton 1995: 118).

Experimentation creates a diverse portfolio of distinct technological options (i.e., requisite variety in products and processes), and it sets up a “virtuous” cycle of innovation (Leonard and Barton 1995). A high tolerance for failure is a prerequisite for generating a climate for experimentation, and facilitates the generation of multiple experience modes.

(f) Hindsight

The ability to reflect upon the physical experiences and the experiments undertaken is essential for the knowledge-foresight process. Weick (1995: 78) notes that:

“The one small flaw is that strategists take credit for their foresight when they are actually trading on their hindsight. A well-developed capability for hindsight is neither a dramatic accomplishment, nor especially rare, which is probably why strategists shun that depiction of their contribution.”

The importance of retrospect in knowledge-foresight processes is grounded in the idea that one can only know what one did until one sees what one produced (Weick 1995: 30). By making sense of the experiences a firm makes, it generates new organizational knowledge.

(g) Relation to future tasks

Knowledge foresight might originate from a clear vision of future tasks, products, or services. Even though this article started from the assumption that in times of increased complexity of markets, it might be more difficult to clearly foresee what customers want than it is to envision future company knowledge, it would be incautious to exclude the possibility to develop knowledge based on a clear future task.

The next section illustrates such foresight processes. It is described how the mountain resort St. Moritz tries to stay on “Top of the World” by carefully screening trends, internalized and converted into competencies and products. Through the constant push for innovative solutions, experimentation, a high amount of failure acceptability, and a strong cooperative network, St. Moritz manages to stay on top of their segment.

5. Creating foresight in St. Moritz

Hans-Peter Danuser, the Director of the Tourist Board of St. Moritz, describes the mountain resort as the “last real Epicurean and hedonistic paradise where beautiful people of a certain standard from all over the world meet”. They live in a symbiosis of nature and comfort, relishing the “champagne climate” of St. Moritz. Some competitors might ask themselves why these cosmopolitan tourists feel drawn to St. Moritz. What is it that distinguishes St. Moritz from other resorts that did not manage to achieve similar results over one century? Obviously, it is not only the location, and certainly it is not only the nice climate that St. Moritz is sharing with other holiday resorts. The secret of success of St. Moritz is to a large extend based on its ability to sense the future before it arrives, hence to recognize and gradually convert sustainable trends into new products and services.

St. Moritz – “Top of the World”

Located 1856 meters above sea level, St. Moritz is altitudinally closer to “the top” than all its famous competitors within Switzerland (Arosa 1815; Zermatt 1620; Davos 1560; Gstaad 1050). The village has about 5,600 residents and 3,000 seasonal staff - in total, about 4,500 employees work in St. Moritz. They run 45 hotels and guest-houses with a total of 5,775 beds. In addition, 7,500 beds in holiday apartments are available to visitors coming mostly from foreign countries (65-70%). Nearly half the hotels belong to the five-, or four-star category, offering over 60% of the available hotel beds. In comparison to Gstaad with 542 beds in five-star hotels, Arosa with 435, Zermatt with 412, and Davos with 272, St. Moritz clearly positions itself in the top segment, with 1,214 beds in five-star hotels. In total, St. Moritz has about 1,3 million overnight stays per year, resulting in a turnover from tourism of about 1 billion per year. The budget of

the community totals 60 million SFr. (companies included), whereas 6 million fall to the budget of the tourist board.

Besides other performance measurement indicators such as customer satisfaction, market share, or turnover, Dr. Danuser evaluates the output of St. Moritz by comparing the tax earnings per capita of the Canton of Graubünden: St. Moritz holds the second place after the small tourist village of Sils (SFr. 3,884) with SFr. 3,831, followed by Silvaplana (SFr. 3,811), Sammnaun (SFr. 3,421), Celerina (SFr. 3,010), Arosa (SFr. 2,931), Pontresina (SFr. 2,722), Laax (SFr. 2,656), Flims (SFr. 2,648), Klosters (SFr. 2,614), and Davos (SFr. 2,334). St. Moritz, which is to 100% dependent on tourism, is even ahead of the capital city of the canton - Chur (SFr. 2,285), and the town with the most industry - Domat/Ems (SFr. 1,629). The list of innovations in St. Moritz is an impressive one. Besides the already mentioned innovations, the list below shows some of the events that the small village has launched:

- 1st Curling Tournament on the Continent (1880)
- 1st European Ice-Skating Competition (1882)
- 1st Olympic Games in Switzerland (1928 and 1948)
- 1st Modern Winter Sport: Cresta (Skeleton)-Run (1885)
- 1st Golf-tournament in the Alps on the Continent (1889)
- 1st Bob Run (1890)
- 1st Horse Race on Snow (1906) - on the Frozen Lake (1907)
- 1st Ski-school in Switzerland (1929)
- 1st Golf-tournament on a Snow-covered Frozen Lake (1979)
- 1st Polo-tournament on a Snow-covered Frozen Lake (1985)
- 1st Snowboard World-championship on the Continent (1987)
- 1st Cricket-tournament on a Snow-covered Frozen Lake (1989)
- 1st Bob-run Skating Race (1991)
- 1st Windsurfing World Cup for Professionals in the Alps (1994)
- 1st British Classic Car Meeting (1994)
- 1st Polo World Championships in the Alps (1995)
- 1st Inline Skating Marathon (1996)

Physical Experiences and Experimentation with Selected Trends

The ability to recognize trends might to a large extent be related to a “gut feeling”, but it can be actively supported. One source of inspiration for new product ideas is the environment. The tourist board of St. Moritz does not ask the customers themselves what kind of new product they would appreciate in the future. On the one hand, the customers do not like being interviewed, and on the other hand, they believe that it is not very likely to get new inspiration from existing customers. Mr. Danuser therefore travels around the world and gives talks - once a week on average - to different audiences at universities, conferences, or companies: “The questions they ask there are challenging, and I learn how to think differently.” Marketing for the holiday resort by showing competence in the lecture is combined with new insights about “the world outside St. Moritz”. In that way, Mr. Danuser is constantly exposed to different mind-sets across generations. He gets a feeling for the emergent cultures and subcultures of society. Hence, one way of getting new ideas is partly to cut himself off his own organization and achieve a certain amount of remoteness from it - far enough to see emergent patterns in the stream of actions of St. Moritz critically, but close enough to ensure his connection to the community in order to be able to retain influence on critical decisions.

In addition, different kinds of media are carefully studied, always bearing in mind the chance to pick up interesting issues for the tourist resort as early as possible. When everybody could see Migros & Coop (two wholesalers) with full-page color advertisements in several newspapers, boosting Inline Skating equipment, the tourist board was assured that they were on the right track betting on Inline Skating. In fact, they had started two years previously to think about Inline Skating. This process had been initialized by Dr. Danuser’s children, who came back from a trip to Copenhagen. They realized that it was easy to explore such a city with “Rollerblades” - and was great fun, too. The Danuser

family started to talk about this new leisure phenomenon which had the consequence that the following Christmas the entire family was equipped with Inline Skaters. He bought the first "Rollerblades" in the US, not knowing that they were actually produced in Italy. At that time he felt that he had to try out the new sport because he might like to practice Inline Skating himself. This procedure is typical for the innovation process in St. Moritz - a new trend/idea is not immediately converted into a tangible outcome. First, more knowledge has to be gained about the nature and the sustainability of the trend. This process - earlier described as "physical experiences" and "experimentation" - is crucial for successful innovation, because it adjusts a trend to the local circumstances and increases the understanding of the innovation.

The knowledge generated by the Danuser family effected the entire community: the residents saw the director of the tourist board running around in his fancy skating-dress, and some engaged him in conversations about the new hobby. Soon, Inline Skating was the talk of the town. The tourist board nurtured this process by publishing two articles on Inline Skating in the local Press. When H.P. Danuser felt that the critical level of knowledge about the new trend existed in St. Moritz, he gathered the key members of the village, from hotel managers to police officers, to further discuss the potential of Inline Skating as a new product. The early involvement of all parties facilitated the development of enthusiasm for the new idea, helped to overcome resistance against change, and created ownership for the new idea. Furthermore, the shared experiences with the new trend as decisive to find out whether the new phenomenon is only part of a fleeting fashion or of a new mid/long-term trend. Only if the phenomenon is a sustainable trend is it worth to investing in.

A community that has been pampered by success over the last few decades constantly builds up innovation barriers. They limit change and the development of new products. The recipe of St. Moritz to overcome these obstacles is to develop gradually

develop knowledge *before* introducing the end-product. The tourist board involves the entire community in this process: Every member of the Danuser family was equipped with an Inline-Skating outfit. They generated new knowledge about the sport through their own bodies. The results were amazing: (1) Inline Skating can also fascinate people over their forties; (2) the movements involved are similar to cross-country skiing and skating - hence Inline Skating might be a summer alternative to existing sports; (3) those people already familiar with a related sport find it is easy to use the Inline skaters; (4) Inline Skating does not harm Nature in any way; (5) traffic might be burdened; (6) the risk of getting injured can be limited with professional equipment; (7) Inline Skating is a sustainable trend, which means that after one season the interest in Inline Skating has not slackened.

Articulation of competencies and products: Inline Skating Marathon

The formulation of the idea to market Inline Skating in the form of a marathon event was based on a careful examination of how the key resources of St. Moritz might be used. A new product is introduced only if it is built upon one or more key resources: that is what distinguishes St. Moritz from its competitors. Inline Skating, for example, does not harm the natural environment, it fits into international culture and even benefits from it. Furthermore, Inline Skating - if limited to specific areas and time schedules - does not affect comfort standards. But it might interfere with the specific ambiance of St. Moritz. Traffic problems and commotion might be caused. Hence, the tourist board reflected on how "Snowboard kids" some years ago changed the touristic ambiance in some other holiday resorts, and they studied the way in which Inline Skaters are treated in bigger cities. These observations led to the decision to create infrastructures exclusively for Inline skaters. For that purpose, the airport (which is closed from 6 p.m.), mountain-railway areas, the artificial ice-

rinks of St. Moritz and Samedan (as long as the ice has not been prepared), and asphalt streets around the polo meadow (at specified periods of time) will be reserved and specially prepared for Inline Skating. The airport and other unique resources of the community can thus be used to add value to the new sport.

The next point to consider was how Inline Skating might affect the brand name of St. Moritz "Top of the World". An event only with the traditional Inline facilities (e.g., halfpipe) might not suit the positioning of St. Moritz. Hence, before introducing the event, the trend Inline Skating has been reinterpreted, with the result that an Inline Skating marathon will be organized to convey the art of enjoying the harmony of Nature with sport. St. Moritz attempts to disconnect the image of Inline skaters acting as "stuntmen" supported by "jungle techno music", and create a new form of Inline Skating that suits better to the spirit and the brand name of the premier holiday resort.

Experimentation with the product idea plays an important role in the foresight process. For that purpose, four top-ranking Inline skaters were invited to test the marathon route from Maloja via St. Moritz and Pontresina to S-chanf. Accompanied by two police cars, these Inline skaters covered the marathon distance. New knowledge about the potential event has been created; the skaters were driven by tail-wind during most parts of the route, the temporary obstruction of the main street did not cause traffic chaos, the entire route is passable, and the skaters were very excited about the surrounding landscape they were able to enjoy in spite of their exertions. This test created new knowledge about the Inline marathon, and the four skaters were won over as voluntary helpers for the product launch.

The experience gained from the four Inline Skaters helped to formulate a clear product idea. Although experiments have already been carried out in prior development phases, the failure rate of innovations is high. Danuser assesses this rate at more than 50%. Hence, it is important to be able to accept failure as a natural part of knowledge development. He states that: "About

70-80% of our decisions turn out to be wrong, but we have to make decisions, because we do not like unclear situations that hamper progress."

Event marketing has turned out to be an excellent tool to help the customers to develop knowledge about the new product and to articulate their particular needs. A variety of events is organized with the support of the tourist board (about 150 in winter and 100 in summer). Inline Skating is a typical product to be situated in the upper-right quadrant. The new product contains a high potential to attract new customers (e.g., cross-country skiers; entire families, i.e., including children; active holiday-guests; an existing Inline Skating community). Inline Skating might even be able to bridge the gap between the summer- and winter-holidays offered by St. Moritz, because it addresses the customer needs of typical winter guests. On the other hand, Inline Skating is quite difficult to introduce, because potential customers know very little about this trend sport. Customers need help in articulating their needs. Event marketing provides the opportunity to make experiences together with the customers and to talk about them. That way entrance barriers may be reduced and the product may be adapted according to the customers' expectations.

Events such as the "Engadin Inline Marathon" convey the message of the new product in an attractive way. Potential customers get to know more about equipment, different possibilities and techniques of Inline Skating, the risk of injuries, health benefits, or one's potential fellow-sportsman. It is also possible to rent Inline skate equipment at a special rate and to try it out personally. But not only the customer learns - events represent a good opportunity for the tourist board to get to know their customers' needs more accurately and to adapt to them.

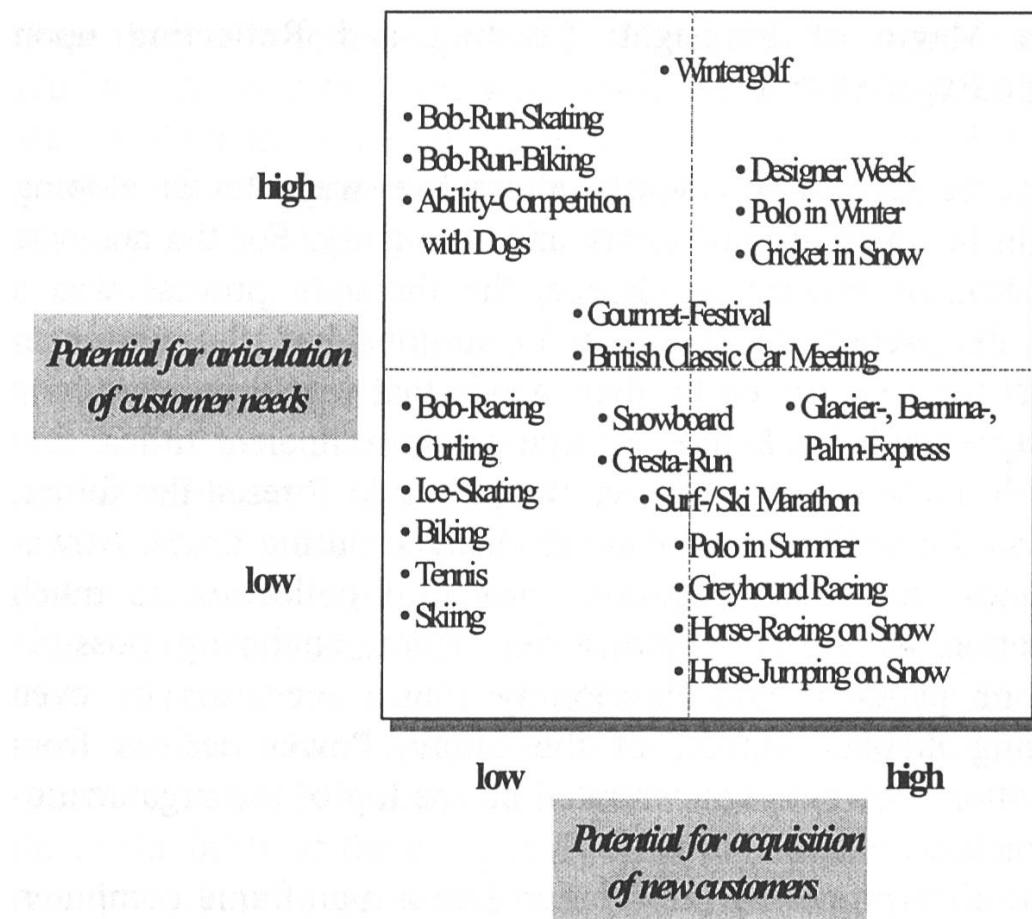


Figure 1: Innovation Portfolio in St. Moritz

The innovation process described above resulted in more than 300 different events each year, organized by the residents of St. Moritz. These events then turn into actual products in a self-organized manner when members of the community decide to pick up on a successful event. This way one of the first Swiss schools for Inline Skating was founded in St. Moritz.

The case illustration of St. Moritz described how a mountain resort tries to stay on "Top of the World" - how trends are recognized, internalized and converted into competencies and products. The tourist board knows that due to the fact that the world is constantly changing, the "Top" is changing as well. Through the constant push for innovative solutions, experimentation, a high amount of failure acceptability, and a strong cooperative network, new peaks can be identified or even created and then climbed up.

6. The Magic of Foresight: Creating and Reflecting upon Strategic Experiences

This article set out to identify alternative ways to developing foresight in times of uncertainty and ambiguity. For the ancients in the Roman Empire or Greece, the foresight process was a mystic experience. Only a few institutions had the power to interpret the signs given by their gods that would indicate how the future would look like. Similar to those ancient times, few people in most companies have the power to foresee the future. The basis for such power however changed during times. Nowadays, most foresight processes consist of collecting as much information as possible, structuring them, analyzing possible trends or patterns, and developing future scenarios or even predicting distinct aspects of the future. Power derives from information. Power is concentrated on the top of the organizational pyramid.

The firm processes information like a mainframe computer. Information is accumulated on the top of the organizational hierarchy, and top-managers have more information and consequently also more power to develop foresight. The "truth" about the future therefore comes directly from the chief executive officer and is then distributed across hierarchical levels by means of high polish brochures. Once these brochures arrive at lower management level, they very often become meaningless, even counterproductive because they damage the trust they have in the company's oracle. They may live in a different reality - outside the messages of the brochure. The information load the top management team has to process is simply too high, the information content changes too rapidly.

A possible way out could be the delegation of the foresight task down the hierarchy. Instead of referring to one main frame of reference (the CEO), the firm starts to process information like a client-server computer network. Intelligent managers all over the company start to gather their environment-specific knowledge and

draw their own foresight pictures. Those managers are “empowered” to take whatever decision would be necessary to be successful in their market segment. The client-server model however implies that managers have time and skills to embark on the journey to the future.

To develop those foresight skills, this article described alternative ways of foresight creation, distinct from the mainframe- or client-server metaphor:

1. The potential of *knowledge as a strategic layer* may be further explored. In addition to observing the evolution of customer benefits, competencies, or customer interfaces, future research needs to explore how the knowledge system influences other strategic layers. What and how will we know in the future? How is new knowledge converted into customer products and services? Does knowledge play an explicit role in strategy meetings? Are managers able to measure the impact of knowledge on the profitability of the company? What organizational knowledge is a firm likely to develop, given its current long-term objectives on product/market level?

2. Foresight partly resides and grows in the body. Along with the increasing importance of intangible assets in foresight processes comes the *tacit dimension of foresight*. New data, experiences, and observations are constantly entering somehow our minds and bodies and remain there in some form. When inquiring successful managers are questioned about the way a new business idea developed, they often answer “It was a gut feeling”. But how does an idea grow in the gut? More research is welcomed into “physical experiences” in addition to pure cognitive learning experiences in strategy processes.

3. If physical experiences become more important when developing foresight, how do they influence the formal strategy process? In most companies, the formal strategic process consists of top-management meetings that are dominated by quantitative data about the current situation and some bets on how they could develop in the future. This article attempted to show that the

foresight process may need "richer" experiences as illustrated with the St. Moritz example. Some approaches have been outlined to help managers to put themselves into a position to "act" in a possible future: early recognition, networking, broad involvement, physical experiences, experimentation, hindsight, and the early relation to future tasks. These and other approaches need to be tested regarding their applicability to the exploration of the future knowledge system and the development of foresight "from within".

References

AMIT R., SCHOEMAKER P. J. H. (1993). Strategic assets and organizational rent, *Strategic Management Journal*, 14: 33-46.

ARTHUR B. (1989). Competing Technologies, Increasing Returns, And Lock-In by Historical Events, *The Economic Journal* 99: 116-131.

BARNEY J. B. (1991). Firm Resources and Sustained Competitive Advantage, *Journal of Management* 17: 99-120.

BLACKLER F. (1995). Knowledge, Knowledge Work and Organizations: An Overview and Interpretation, *Organization Studies* 16(6): 1021-1046.

CIBORRA C. (1996). The Platform Organization: Recombining Strategies, Structures, and Surprises. *Organization Science*, Vol. 7, No. 2 (March - April): 103-118.

COHEN W., LEVINTHAL D. (1990). Absorptive Capacity: A new perspective on learning and innovation, *Administrative Science Quarterly* 35: 128-152.

CONNER K., PRAHALAD C. K. (1996). A Resource-based Theory of the Firm: Knowledge versus Opportunism. *Organization Science* 7(5): 477-501.

DIERICKX I., COOL K. (1989). Asset Stock Accumulation and Sustainability of Competitive Advantage, *Management Science*, December: 1504-1514.

HALL R. (1992). The Strategic Analysis of Intangible Resources, *Strategic Management Journal*, 13: 135-144.

HALL R. (1993). A Framework linking Intangible Resources and Capabilities to Sustainable Competitive Advantage, *Strategic Management Journal* 14: 607-618.

HALL R. (1994). Intangible Sources of Sustainable Competitive Advantage. In HAMEL G., HEENE A. (Eds.) *Competence based competition*. 149-169 Chichester: Wiley.

HAMEL G., PRAHALAD C. K. (1994). *Competing for the Future*, Boston: Harvard Business School Press.

ITAMI H., ROEHL T. (1987). *Mobilizing Invisible Assets*. Cambridge, MA: Harvard University Press.

JAMES J. (1996). *Thinking in the Future Tense: Leadership Skills for a New Age*, New York: Simon & Schuster.

LEONARD-BARTON D. (1992). Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development, *Strategic Management Journal* 13, Special Issue Sommer: 111-125.

LEONARD-BARTON D. (1995). *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation*, Boston (Mass): Harvard Business School Press.

LIEBESKIND J., ET AL. (1996). Social Networks, Learning, and Flexibility: Sourcing Scientific Knowledge in New Biotechnology Firms, *Organization Science* 7(4): 428-443.

MAHONEY J. T., PANDIAN J. R. (1992). The resource-based view within the conversation of strategic management, *Strategic Management Journal* 13(5): 363-380.

MARCH J. G. (1994). *A Primer on Decision Making*, New York: Free Press.

MCDERMOTT B. (1996). Foresight is an Illusion. *Long Range Planning*, Vol. 29, No. 2: 195-202.

PENROSE E. T. (1959). *The Theory of the Growth of the Firm*, New York: Wiley.

PISANO G. (1994). Knowledge, Integration, and the Locus of Learning: An Empirical Analysis of Process Development 15: 85-100.

PRAHALAD C. K., BETTIS R. A. (1986). The Dominant Logic: A New Linkage Between Diversity and Performance, *Strategic Management Journal* 7: 485-501.

RUMELT R. (1984). Toward a Strategic Theory of the Firm in LAMB R. (Ed.) *Competitive Strategic Management* 556-570, Englewood Cliffs, NJ: Prentice-Hall.

RUMELT R. (1987). Theory, Strategy, and Entrepreneurship in TEECE D. J. (Ed.) *The Competitive Challenge* 137-158, Cambridge, MA: Ballinger Publishing.

SELZNIK P. (1957). *Leadership in Administration: A Sociological Interpretation*, New York: Harper & Row.

SHOTTER J. (1993). *Conversational Realities: Constructing Life through Language*, London: Sage.

SLAUGHTER R. (1993). Futures concepts, *Futures*, April: 289-314.

SLAUGHTER R. A. (1990). The Foresight Principle, *Futures*, October: 801-819.

STACEY R. D. (1996). Emerging Strategies for a Chaotic Environment, *Long Range Planning*, Vol. 29, No. 2: 182-189.

STACEY R. D. (1993). *Strategic Management and Organizational Dynamics*, London: Pitman Publishing Inc.

WEICK K. E. (1995). *Sensemaking in Organizations*, Thousand Oaks u.a.: Sage.

WEISBORD (1987). *Productive Workplaces - Organizing and Managing for Dignity, Meaning and Community*, San Francisco, Oxford: Jossey - Bass Publishers.

Wernerfelt, B. 1984. A Resource-Based View of the Firm. *Strategic Management Journal*, 5: 171-180.