
2.

The challenges of strategic management in the twenty-first century

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Markets around the globe are set to experience increasing turbulence in the coming years. That means greater uncertainty for companies' strategic planning – more volatility, more complexity and more ambiguity. The tools managers use for strategic planning and forecasting have changed considerably in the past few decades. But they are inadequate when faced with today's fast-changing environments. Scenario-based planning can be the answer to cope with the challenges of today's business.

2.1 DETERMINANTS OF ENVIRONMENTAL UNCERTAINTY

Economic forecasters use complex models to help them understand economic change. But trends are unreliable and future developments often far from clear.

Uncertainty is an entrepreneur's everyday business. It can be understood as an individual's inability to predict something accurately (Miliken, 1987). In the business world, managers have to deal with different kinds of uncertainty. They face uncertainty in the overall environment – the macroeconomic, political, social, technological and environmental framework in which they operate. They also face uncertainty in their specific industry. Another way of categorization is to differentiate between uncertainty about the actual state, uncertainty about effects and impacts, and uncertainty about responses or adequate measures (Miliken, 1987).

As early as 1848, the revolutionary socialists Karl Marx and Friedrich Engels wrote in the Communist Manifesto that the "constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation" distinguished the current time from earlier periods (Marx/Engels, 1969).

Underestimating this uncertainty can be hazardous. At worst, it leads to strategies that are unable to protect the company against threats. At best, it leads to strategies that ignore the potential opportunities inherent in uncertainty.

Let's look at some historical examples. These examples show how significant the long-term consequences of uncertainty – and decisions based on uncertainty – can be. Back in 1876, the financial services company Western Union believed that the telephone would never replace the telegraph. An internal memo from that year stated that "the telephone has too many shortcomings to be seriously considered as a means of communication." Today, the number of cell phone subscriptions alone is about six billion (ITU, 2012).

Another example: In 1977, Kenneth H. Olsen, then president of the American IT firm Digital Equipment Corporation, is said to have announced that "there is no reason for any individual to have a computer in their home." At that time, the explosion in the personal computer market could not be foreseen with any clarity, but it was certainly one of the possibilities that industry experts were discussing. Nowadays we have more than 1.6 billion personal computer users around the globe (Gartner Group, 2010).

Further examples of glaring misjudgments (Incorrect predictions, 2013) include the legendary quote by Darryl Zanuck, movie producer at 20th Century Fox, who stated in 1946 that "television won't last, because people will soon get tired of staring at a plywood box every night." French Marshall Ferdinand Foch, a famous military theorist and supreme commander of the Allied armies in the closing year of World War I, said in 1911: "Airplanes are interesting toys, but of no military value." Similarly, Germany's last Kaiser, Wilhelm II, failed to grasp the huge potential of cars when he stated in 1905 (Wüst, 2006): "I believe in horses. Automobiles are a passing phenomenon."

The list of such quotes could go on indefinitely. Yet even these few examples make the point with abundant clarity: Cling rigidly to your dogmas and doctrines and you will never find the right answers in a world of uncertainty where change is as dynamic as it is profound. Tread the beaten path, think the way you have always thought – and you will quite simply be swept away by new developments.

This principle has never been more true than in the day in which we live. Today, the pace of environmental change has accelerated significantly. More than

ever before, tools are needed to handle uncertainty. Of course, uncertainty cannot be reduced to zero. But decision makers need reliable guidelines and facts on which to base their strategic planning and investments. How, then, can managers develop a sustainable strategy in fast-changing environments? How can they overcome – or at least embrace – uncertainty in their decision-making processes?

Below, we look in turn at what we consider the three core dimensions of uncertainty – volatility, complexity and ambiguity.

2.1.1 VOLATILITY

How do environmental parameters react to impulses that are hard to predict? Volatility comprises both what we call "firm-level volatility" and "aggregate volatility". The two types of volatility are, of course, interrelated – as we saw during the financial crisis of 2008.

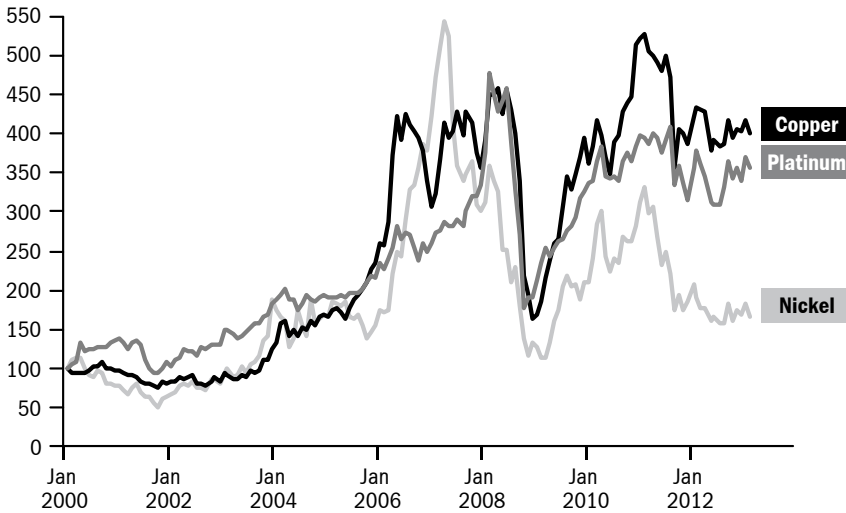
"Firm-level volatility" involves changes in a company's workforce, sales, earnings, capital expenditure or the price of raw materials (Comin/Philippon, 2006).

Strategic decisions are strongly influenced by sudden changes that affect a company's individual situation. One example of such firm-level volatility is the major shifts in the price of the raw materials copper, platinum and nickel seen in recent years (see Figure 2-1). These materials are required by specific industries; their price has become a strategically relevant parameter. In addition, shorter product lifecycles and rapidly changing technology also make long-term decisions difficult, often leading to expensive strategies based on trial and error.

The fast spread of new technology also causes volatility. Thus, it took radio 38 years to reach 50 million people, whereas the social network Facebook achieved the same feat in less than two years. Similarly, mobile-only Internet users (users with no fixed broadband) numbered just 14 million in 2010, but they are expected to grow 34% a year to 2030, from under 1% of the world's population to around 60% (Roland Berger Strategy Consultants, 2011).

FIGURE 2.1: SELECTED METAL PRICES, 2000-2013

[INDEX, END OF JAN 2000 = 100]



Source: Bloomberg, Roland Berger calculation

"Aggregate volatility" refers to fast, large-scale changes in macro-indicators such as GDP growth on a national, regional or global level. It can result from having strongly interconnected sectors. "The recent economic crisis has further highlighted the importance of interconnections between firms and sectors in the economy. Both the spread of the risks emanating from the so-called 'toxic' assets on the balance sheets of several financial institutions to the rest of the financial sector, and the transmission of the economic problems of the financial sector to the rest of the economy have been linked to such interconnections. In addition, government policies aimed at shoring up several key financial institutions and the assistance to General Motors and Chrysler in the midst of the crisis were both justified, not so much because these institutions were 'too big to fail', but because they were 'too interconnected to fail'"(Acemoglu et al., 2010, p. 1).

The fact that aggregate volatility is very great indeed in the present day can be seen from other telling examples. In response to the reactor disaster in Fukushima, the Merkel government resolved a *volte-face* in Germany's energy policy that, in a very short space of time, has radically altered the planning parameters for the energy sector and for German industry as a whole. The resultant expedited switch from nuclear energy and fossil fuels to renewable energy necessitates completely new transitional structures and energy storage options and even reopens the debate about the affordability of electricity.

Meanwhile, the USA is using "fracking" and horizontal drilling techniques to tap oil and gas reserves that were hitherto difficult to access. By reducing energy consumption – in particular car fuel consumption – at the same time, it is thus increasingly breaking free of its dependence on energy imports from the Middle East. Thus, while all past forecasts have seen it as a major energy importer, the USA is now poised to become a net gas exporter as of 2020 and a net oil exporter as of 2035 (IEA, 2012). That will do more than simply make US industry more competitive: One dramatic outcome could be that the country's geopolitical interest in the Middle East might wane. What consequences *that* could have for the region is, from a present perspective, utterly imponderable. Clearly, realities that once appeared to be cast in stone can change quickly and fundamentally in today's volatile world. And that has far-reaching consequences in so many different areas.

2.1.2 COMPLEXITY

What factors must managers take into account when formulating strategies? In most organizations today, major change is the rule rather than the exception. Shifts in leadership, overseas initiatives, new products and services all cause unpredictability. Snowden and Boone identify the following features of complex systems (Snowden/Boone, 2007):

- ◆ The elements are connected and interacting
- ◆ Minor impacts can produce disproportionately major consequences
- ◆ The whole is greater than the sum of its inputs and assets

- ◆ Hindsight does not lead to helpful implications for the future as external conditions are constantly changing
- ◆ Agents and the system constrain one another

Complexity results from companies having to navigate a growing number of dimensions when developing strategy. Network effects and change on different levels lead to even greater complexity. The factors involved are often interrelated, making the task particularly challenging. Below, we give some examples of how complexity impacts the everyday business of management: the broader range of stakeholder interests, increasing global presence, variety of products and information overload.

BROADER RANGE OF STAKEHOLDER INTERESTS

Today's companies need to address a broader range of stakeholder interests than in the past. Governments, activists and the media have become adept at holding companies to account for the social consequences of their activities. Corporate social responsibility (CSR) has emerged as a key priority for business leaders around the world, affecting such diverse areas as the management of supply chains, corporate governance and intercultural leadership. For example, tobacco firms have had to defend themselves for causing lung cancer. Pharmaceutical companies found that they were expected to respond to the AIDS pandemic in Africa, even though it had little to do with their primary products and markets. Fast-food and packaged food companies are being held responsible for obesity and poor nutrition (Porter, 2006). The tradeoffs that become necessary make it very difficult to identify a single strategy that will be effective in every situation.

INCREASING GLOBAL PRESENCE

Globalization is very real in everyday life. Who would have thought that Chinese brands would ever make it to Hollywood? Yet the latest "Transformers" movie is full of product placements for Chinese firms. Many companies, especially in the industrialized and emerging countries, make a big portion of their total revenues and profits through foreign sales. "... about 40% of profit for firms listed in the S&P 500 stock index [is] now coming from overseas" (Newman, 2011). And this is only the beginning: worldwide, just 10% of fixed investments go to foreign countries

SCENARIO-BASED STRATEGIC PLANNING

(Ghemawat 2011). Globalization will further increase in the coming decades. Exports and foreign direct investments will grow significantly faster than GDP as companies are supplying goods and services to an ever wider range of international markets. They have to take into account many different factors in their strategic planning. For example, new local markets require research into target groups, purchasing patterns, regulatory frameworks and currency risks.

VARIETY OF PRODUCTS

Buyers today are used to a wide range of choices. The complexity of product portfolios contributes to the many challenges facing strategic planning. This is true especially for the consumer markets. At the beginning of the twentieth century, Henry Ford famously stated that his customers could have a car painted any color they wanted – so long as it was black. Today, buyers can choose from a wide range of specifications, from the textiles for the seat covers to the size of the engine. Hundreds of different parts means millions of different product permutations. Companies constantly launch new products and line extensions. With added complexity, the cost of managing that complexity multiplies and margins shrink. The complexity that began in the product line spreads outward through every facet of the company's operations, including the supply chain, availability of spare parts and innovation activities.

INFORMATION OVERLOAD

Information overload is an old problem, but the speed with which the sheer volume of available information is growing is new. With the internet and even faster data transfer all over the globe any amount of information can be exchanged in real time. The amount of data stored now doubles every 18 months (Roland Berger Strategy Consultants, 2011). Digital information is generated by a wide range of sensors, instruments and simulations. Companies find themselves unable to organize, analyze and store it quickly enough. Data is also increasingly fragmented. Managers are constantly bombarded with unrelated bits and pieces of data – a comment from a friend one moment, information on the consequences of the Euro crisis the next. With the information floodgates well and truly open, content engulfs us in countless different formats, from text messages and tweets to Facebook messages and voicemail. Current research suggests that this growing volume of information can

have a negative effect on decision making, innovation capacity and productivity (Hemp, 2009).

2.1.3 AMBIGUITY

How accurately can we predict the impact of management initiatives on a company's performance? Decision making is complicated by the fact that it is often not clear which variables are involved and what their precise role is. Managers are facing complex situations that have never occurred before. Take the eurozone crisis. It is not clear in which way political short time measures will impact the mid-term and long-term environments of entrepreneurial decisions. It seems that for example Ireland takes a different development than Spain and Greece. Ambiguity means a lack of clarity (Schrader et al., 1993). Strategic decisions are risky because decision makers lack potentially important information and are therefore uncertain about the probability of forthcoming events. "Causal ambiguity" is also a factor here – the uncertainty that derives from unclear causal connections between actions and results (Lippmann/Rumelt, 1982).

Lack of knowledge about the relationships between actions and results is an everyday reality for managers working in unstable environments. Even where they can identify and monitor weak signals, it is not easy for them to interpret these signals correctly. An example: The percentage of households in China owning a car is rising. But what does that mean for future business models? Will Western companies profit in the long term? Or will it be the Chinese automotive industry that benefits most?

We have seen that managers today face more volatility, more complexity and more ambiguity than they did in the past. So, are the existing approaches and tools of strategic planning and the current methods of predicting the future able to cope with these new challenges? To answer that question we will have a closer look to these approaches, tools and techniques.

2.2

THE EVOLUTION OF STRATEGIC PLANNING

Whoever wants to set up an effective process of strategic planning needs to understand how organizations and their specific situation interact with the overall environment. Therefore it is useful to observe the development of different solutions over time. The idea of strategic planning as a specific task for the organization – often separated into its own organizational unit – first emerged in the 1950s. Large American and European companies began formulating strategies for individual business units and coordinating these strategies with each other. Researchers and practitioners such as Igor Ansoff, Bruce Henderson and Alfred Chandler greatly influenced the emerging field. Popular frameworks included the product/market grid, the SWOT analysis and the BCG matrix. These iconic methods influenced not only strategic planning but spread to other areas of business, too.

The following decades saw many changes in strategic planning. From a two-dimensional exercise, it developed into a more holistic approach. Below, we briefly chart the history of the field, looking at the (to some extent overlapping) periods of what we call the "golden age", the strategic process era and the multi-perspective view.

2.2.1

THE GOLDEN AGE OF STRATEGIC PLANNING

Business managers and academics first became interested in strategic planning in the 1960s. New institutions were founded to deal with the approach: in the United States, the American Society of Corporate Planners (1961) was founded, later merging with the Planning Executives Institute to create the Planning Forum (eventually renamed the Strategic Leadership Forum). In the United Kingdom, the Long Range Planning Society was founded in 1966 and later renamed the Strategic Planning Society (Grant, 2003). The most important tools and methods developed in the golden age of strategic planning are described below.

◆ **Ansoff's strategic choices for growth:** Mathematician and professor of management Igor Ansoff developed the first method for measuring the profit potential

of alternative product-market strategies. His approach begins by forecasting trends and contingencies and then works toward the company's needs and long-term objectives (Ansoff, 1957). Ansoff gives four basic options for strategic moves: market penetration, diversification, product development and brand development. Each of these is positioned on a product-market-map. He also proposes making growth forecasts by observing political and economic trends as well as industry trends and manufacturing costs.

◆ **SWOT analysis:** SWOT (strengths-weaknesses-opportunities-threats) analysis is a way of looking at a company's strategic position in the market. Its origins lie in the work of business policy experts at the Harvard Business School and other American business schools from the 1960s onwards. Thus, Kenneth Andrews (Andrews, 1971) claims that good strategy means ensuring a fit between the external situation faced by a firm (its threats and opportunities) and its own internal qualities or characteristics (its strengths and weaknesses).

◆ **BCG portfolio matrix:** The BCG portfolio matrix helps companies find growth fields in their product lines. The tool was developed for Boston Consulting Group by Bruce Henderson in the 1960s. Products are mapped in terms of market growth and relative market share. On this basis, they are classified as "dogs", "cash cows", "stars" or "question marks". The BCG matrix is based on two ideas: the "product lifecycle curve" and the "learning curve". The product lifecycle curve captures the idea that products go through different stages from launch to decline. The learning curve expresses the relationship between experience and efficiency: the more often a task is performed, the lower the cost of doing it.

◆ **Porter's five forces analysis:** Porter sees the corporate strategist's job as understanding and coping with competition. His analytical model makes it possible to assess the nature of competition in an industry. It looks not just at established industry rivals, but at four further competitive forces: customers, suppliers, potential entrants, and substitute products (Porter, 2008). The rivalry that results from all five forces defines an industry's structure and shapes the nature of competitive interaction within it. The five forces thus determine industry attractiveness and long-term industry profitability.

Research into strategic management was revolutionized by the emergence of large commercial databases such as PIMS (Profit Impact of Market Strategy) and

Compustat. Researchers also carried out large-scale surveys and detailed studies of archival sources. Many studies explore the impact of strategic planning on company performance. However, disagreement remains about which aspects of strategic planning influence company performance positively, and how. Indeed, the research has been unable to find a clear correlation between strategic planning and better performance.

The aforementioned approaches of strategic planning have their strong merits and are partly still used today. Nevertheless they also have clear disadvantages in an uncertain world. Taking a deterministic worldview works only in relatively stable environments, where existing conditions are preserved and only incremental change is allowed. In addition, early versions of strategic planning tried to formulate a single, ideal strategy – one that would perform better than all others. As environments began changing faster, these ideal strategies simply didn't deliver. The lack of macroeconomic stability, exchange rate volatility, the microelectronics revolution and the emergence of newly industrializing countries marked the end of postwar economic stability (Grant, 2003). Faced with unreliable prognoses and new competitive landscapes, the "ideal strategy" soon became obsolete. Traditional strategic planning was replaced by the approach of the strategic process.

2.2.2

THE STRATEGIC PROCESS ERA

Inspired by Henry Mintzberg, strategists argued that social reality is not a constant. Moreover, strategists are part of the system and therefore cannot judge a situation objectively (Mintzberg, 1994). Certain analytical assumptions must be made and processes must be embedded in their context. Context and actions interact with each other. Holistic rather than linear explanations are preferred (Pettigrew, 1997).

The Process School emphasizes strategic *thinking* over strategic *planning*. Strategic planning focuses on analysis of information, while strategic thinking focuses on synthesis. Intuition, creativity and learning are all involved. This kind of thinking requires a different understanding of hierarchies and information flows. Strategic processes are no longer exclusively top-down: successful strategies can appear at any time and at any

place within the company. Thus, staff at different hierarchical levels who are involved with specific issues must be entitled to implement strategy (Mintzberg, 1994).

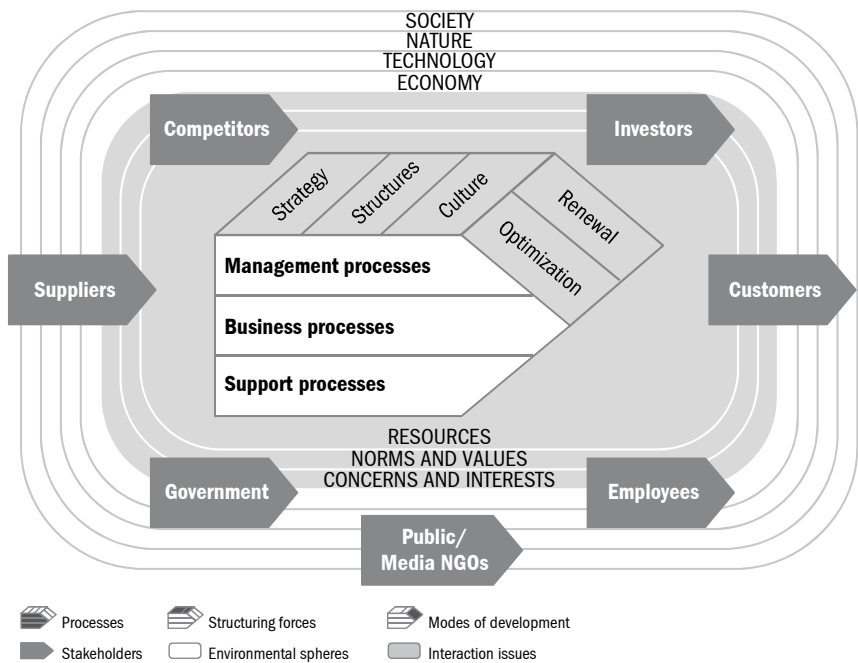
While former approaches to strategic management had concentrated on industry-level phenomena, strategic management in the process era was more concerned with firm-level structures. The focus moved back to examining how companies' internal mechanisms and characteristics influenced their strategy and performance. Mental models played an important role here. Members of the Process School thought that corporate-level strategic decisions emerged from complex interactions between individuals with different interests and perceptions.

Interestingly, organization theory and strategic management began to overlap. Ideas from sociology found their way into strategic planning. Companies were seen as complex, adaptive systems. This approach was reinforced by systems theory. Some basic ideas were also taken from the theory of evolution and from engineering. The New St. Gallen Management Model is a good example. The model assumes that management primarily means mastering complexity. It is based accordingly on testing systems, cybernetic discoveries and concepts. It describes organizational systems along six dimensions: environmental spheres, structuring forces, stakeholders, processes, interaction issues and modes of development (Rüegg-Sturm, 2005).

The New St. Gallen Management Model views the organization as a whole. It thus serves as an effective framework for structuring organizational communication. However, it is perhaps excessively descriptive. Systemic approaches such as the New St. Gallen Management Model are seldom used in practice by companies. This may be because they provide complicated answers to complex questions, on which basis managers find it hard to derive concrete strategic options and recommendations.

Although the approaches of the strategic process era fit better to solve the challenges of companies in an uncertain world than the approaches of traditional strategic planning did, they also have their shortcomings to do so. One of the most important shortcomings is the concentration on firm-level structures. As in today's fast-changing and globalized business world the macroeconomic, political, social

FIGURE 2.2: THE NEW ST. GALLEN MANAGEMENT MODEL



Source: Rüegg-Sturm, 2005

and natural environment is too important to be neglected. Systemic approaches like the New St. Gallen Model incorporate the environmental sphere, but these models are often too complex to be used in practice.

2.2.3 THE MULTI-PERSPECTIVE VIEW

As we have seen, research into the strategy process has added a human element into the equation. However, not enough was still understood about the unique characteristics of managerial activity. Analysts have questioned the practical relevance and usability of strategic planning. Pascale, for example, shows that it was

precisely the absence of strategic planning that led to successful strategy creation at Honda (Pascale, 1984). Similarly, Hamel and Prahalad observe that large companies in the 1990s started to downsize their strategic planning departments (Hamel/Prahalad, 1994). In much the same vein, Murray speaks of "the end of management." He expects the traditional bureaucratic structures to be replaced by something more like ad hoc teams of peers who come together to tackle individual projects, and then disband (Murray, 2010).

These criticisms of strategic planning have led to a decline in research in this area (Whittington and Caillaud, 2008). The field is increasingly fragmented. Competing theoretical frameworks exist and it has become difficult to apply the approach across the whole strategy process. Instead, tools have been developed for specific purposes. The trade-off of specialization was a loss of the picture of the organization and its strategy as a whole. Some examples might make this clearer:

◆ **Strategy maps:** Strategy maps are an improved version of the Balanced Scorecard (BSC). They were developed by Richard Norton and David Kaplan in 1992. The idea is that companies need tools for communicating their strategy and the processes and systems that will help them implement that strategy. Strategy maps combine the traditional dimensions of the BSC (learning and growth perspective, internal process perspective, customer perspective, financial perspective) with the strategic goals of companies. They also take intangible assets into account. Strategy maps provide a visual representation of a company's key objectives and the crucial relationships between them that drive organizational performance (Kaplan/Norton, 2000). Their disadvantages are that they are strongly formalized and don't leave enough room for dynamic processes.

◆ **Blue Ocean Strategy:** Blue Ocean Strategy takes a close look at a company's competitive environment. It focuses on identifying untapped innovative business models ("blue oceans") by providing a wide range of tools. The goal is to find new fields where there is no competition as yet. The central paradigm is that the ideas and actions of individual players can shape the economic and industrial landscape. Executives then need to make sure that their organizations are aligned behind this strategic approach in order to produce a sustainable performance (Kim/Mauborgne, 2009). The downside of Blue Ocean Strategy is that it focuses on developing breakthrough opportunities and neglects to embed them in the standard business of the organization.

◆ **Business wargaming:** Wargaming focuses on the players within the competitive game. It uses role-play to simulate a situation. The approach was initially developed for use in military contexts. Business wargames are most often conducted at one of two points in an organization's planning process: at its outset and after a basic plan has been drawn up. A number of teams are created, each with up to 20 executives and senior managers. Each team is assigned the identity of a specific player, usually one of the company's competitors. The teams engage in a series of strategic moves and countermoves, navigating their way through complex strategy landscapes. The idea is that the teams in this way predict the reactions of competitors to changing market conditions. The teams move along a simulated multiyear trajectory: strategic horizons of more than 20 years are not uncommon. Wargaming does not produce a concrete business strategy. Instead, it focuses on the behavior of competitors. It gives participants a deeper understanding of the competitive dynamics behind strategy development. They can then use these insights to fashion robust strategies. But as wargaming emphasizes on human factor it neglects macroeconomic and industry level criteria.

Looking at the strengths and weaknesses of the three tools we described above we can see that they are not able to lead companies through an uncertain environment. Either they don't consider dynamic processes or they only deal with specialized fields of business.

2.3

TECHNIQUES OF PREDICTING THE FUTURE

After having seen that the approaches and tools of strategic planning have crucial limitations to cope with the uncertainty and dynamic of a company's environment we will now check whether techniques of predicting the future fulfill the needs of companies.

Companies need to reduce uncertainty so that they do not underestimate (or overestimate) the impact of changes. Different techniques have been brought up and are used for predicting the future. Below, we look at four selected methods: extrapolation, prediction markets, futurology and simulation.

◆ **Extrapolation** is an effective technique for predicting the future as long as the environment is stable. It involves using past experience to estimate future data. Strict underlying assumptions are needed. For example, forecasters foresee a lack of skilled workers in Germany; this forecast is based on the assumption that parameters such as migration, education and the birth rates will not change substantially in the future. Thus, the quality of the extrapolation is limited by the assumptions on which it is based.

◆ **Prediction markets** (or **virtual markets**) are speculative marketplaces where participants trade in contracts whose outcome depends on unknown future events. They are based on the efficient-market hypothesis: In a truly efficient prediction market, the market price will be the best predictor of the event and no combination of available polls or other information will improve on the market-generated forecasts. Prediction markets use the "wisdom of crowds" (Surowiecki, 2004) and often turn out to be more accurate than surveys.

◆ **Futurology** is a method developed by historians. It looks at possible, probable and preferable futures (the 3 Ps). Futurologists examine quantitative and qualitative data about the possibility, probability and desirability of change. In this way, they try to achieve a holistic view of possible futures. Wildcards (W) are used to model unpredictable factors that influence future developments: events with low probability but a high impact.

◆ **Simulations** are simplified approximations of a real thing, state of affairs or process. They can reveal the effects of different conditions and courses of action. Companies can use the large quantities of data they hold on customer loyalty, employee retention and supply chain management to carry out simulations and so make meaningful predictions about the behavior of any given customer or employee, or determine the likelihood of gaps in service or supply. Simulations can reveal patterns in pricing, buying habits, geographic region, household income, and so on. The assumptions are usually transformed into algorithms and the simulation is carried out by computer.

Each of the techniques above is good for working on specific problems in situations where clear assumptions are possible. However, strategic decisions of a company being in an uncertain environment require a more sophisticated and broader approach.

2.4

CONCLUSIONS

As we have seen, the first decade of the twenty-first century has been characterized by uncertainty in many different shapes: rapid globalization, accelerating innovation and growing competition, bringing with them volatility, complexity and ambiguity. Neither the aforementioned tools of strategic planning, nor the techniques of predicting the future provide an adequate solution for strategic planning in this uncertain environment. A company using these tools to plan strategy in the year 2000 could not have foreseen the eurozone crisis, dot-com bubble, exponential growth in IT, the emergence of biotechnology and nanotechnology, new business models such as eBay, Dell and Amazon, and the most dramatic global economic slump since the Great Depression. If the old systems had worked, companies would have realized that venerable institutions such as Lehman Brothers and Bear Stearns could disappear overnight. They would have foreseen that new players such as Facebook and Twitter could come out of nowhere and become giant players within less than ten years (Murray, 2010).

Companies therefore need another approach to cope with the uncertain future: scenario-based strategic planning. Scenario-based strategic planning enables companies to develop different pictures of the future and to prepare their organizations for the different futures. The approach has great potential to increase the quality of decisions and companies' performance. As we will see in the next chapter scenario-based planning overcomes the shortcomings of the aforementioned strategic planning approaches and prediction techniques. We will introduce a modern scenario-based strategic planning approach which incorporates the strengths of traditional scenario techniques and combines them with new elements in a holistic approach to make it a powerful tool for today's strategic planning.

2.5

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