3. Scenario-based strategic planning: A new approach to coping with uncertainty

TORSTEN WULF, PHILIP MEISSNER,
CHRISTIAN BRANDS AND STEPHAN STUBNER

In today's increasingly dynamic, volatile and complex business world, companies in many industries face new challenges when it comes to strategic planning. Scenario planning is a popular approach used by companies to meet these challenges. However, traditional approaches to scenario planning are complex and focus on the long term. Our solution is an enhanced, scenario-based strategic planning approach that integrates scenario planning into strategic planning. The approach is tool-based and therefore easy for firms to apply. We illustrate our approach with examples from different industries.

3.1 INTRODUCTION

In this chapter we present an approach to scenario-based strategic planning that integrates scenario planning into strategic planning. This new approach provides a framework that enables managers to deal more effectively with the challenges posed by an increasingly uncertain business environment, characterized by complexity and volatility.

Strategic planning is one of the most influential and widely used tools of management (Rigby/Bilodeau, 2007). The 1970s and '80s saw the development of popular frameworks such as Porter's Five Forces and the SWOT analysis (Porter, 1979; Porter, 1980). Their objective was to identify the best single strategy for a company (Porter, 1980). Today's corporate managers operate in an increasingly volatile, uncertain and complex environment (Chermack, 2011). Researchers argue that, in such conditions, traditional approaches to strategic planning are unable to produce high-quality strategic decisions. Specifically, they criticize the belief, underlying traditional strategic planning approaches, that plans should be developed for a single future direction (Camillus/Datta, 1991; Eisenhardt/Sull, 2001; Grant, 2003).

Today's companies need new instruments for strategic planning, instruments that will allow them to plan in an environment of uncertainty. They can no longer forecast developments on the basis of single projections: they must consider multiple plausible futures. Different strategic options increase flexibility of

B. Schwenker, T. Wulf (eds.), *Scenario-based Strategic Planning,* Roland Berger School of Strategy and Economics, DOI 10.1007/ 978-3-658-02875-6_3, © Springer Fachmedien Wiesbaden 2013

implementation. Planning needs to become more comprehensive (Elbanna/Child, 2007; Miller, 2008) and quicker (Shimizu/Hitt, 2004; Ghobadian et al., 2008; Dye et al., 2009), so that companies can adapt rapidly to changing environmental conditions.

Scenario planning is an important part of strategic planning today (Schoemaker, 1995; Cornelius et al., 2005). It provides a sound basis for comprehensive planning. By analyzing multiple future developments and fostering a strategic discussion, it gives firms a holistic understanding of potential future changes (Wack, 1985; van der Heijden, 2005).

Traditional scenario planning approaches have a number of weaknesses, however. For example, they can be highly complex and slow (Millet, 2003; Verity, 2003; Bradfield, 2008). Scenario projects usually last a minimum of five months, and sometimes as long as a year (Moyer, 1996). Therefore, traditional scenario planning needs to be adapted if it is to be integrated effectively into modern strategic planning.

A modified approach to scenario planning has the potential to significantly improve strategy building within companies. Such an approach should be standardized and tool-based. Our scenario-based approach to strategic planning meets these requirements. It enables companies to formulate a core strategy, complemented by a number of strategic options derived from different strategic scenarios. This framework is highly beneficial for strategic planning (Birkinshaw et al., 2008; Whittington/Cailluet, 2008).

Below, we take a closer look at traditional forms of scenario planning. We identify similarities between the different approaches and pinpoint any shortcomings. We then present our new approach to scenario-based strategic planning. We show how firms can apply the approach within a standard strategic planning process. Process steps are illustrated with examples from the German electronic retail and long-distance heating industry. The examples show how our new approach enables companies to react flexibly to changes taking place around them and achieve lasting competitive advantage.

3.2 SCENARIO PLANNING – THE BASIS FOR MODERN STRATEGIC PLANNING

Scenario planning was first introduced by Royal Dutch Shell in the 1970s to complement traditional forecasting tools. With the help of this approach, the company was able to react earlier and more effectively to the 1973 oil crisis than its competitors (Wack, 1985a).

Scenario planning is a method for developing and analyzing possible future states and development paths (Schoemaker, 1995). Its aim is not to accurately predict the future, but rather to better understand the logical paths that lead to different scenarios and to help develop more comprehensive strategies (Porter, 1985; Wack, 1985a; Schoemaker, 1995).

Unlike traditional strategic planning methods, scenario planning develops different possible views of the future, thus providing a basis for generating strategies that deal with different contingencies (van der Heijden, 2005). It takes uncertainty into account and allows strategists to deal more effectively with complexity, volatility and change when making strategic choices (Porter, 1985). In turn, this leads to increased responsiveness and alertness to changes in market conditions (Grant, 2003).

Furthermore, scenario planning takes the different perspectives of internal and external stakeholders into account. Thus, it can foster cognitive change in the "mental models" of decision makers – it challenges their assumptions and broadens their perception of possible developments (Wack, 1985a; Schoemaker, 1993; Ringland, 1998).

The last 40 years have seen a number of different approaches to scenario planning (Bishop et al., 2007). Among the most influential have been those of Royal Dutch Shell (Shell International, 2003) and the consulting firm Global Business Network (Schwartz, 1996). Millet (2003) calls these two approaches the "gold standard of corporate scenario generation." Two academic approaches are also

particularly important, those of van der Heijden and Schoemaker (Chermack et al., 2001).

Although they differ in terms of detail, the various approaches to scenario planning share some common features. Thus, they all consist of a number of process steps, of which six can be identified in total, although no one approach contains all six steps (Phelps et al., 2001; Chermack et al., 2001; Millet, 2003; Bishop et al., 2007). The six steps are as follows:

Definition of scope: The first step is to define the scope of the scenario project. This phase is known in some approaches as "preparation" (Shell International, 2003). It creates the foundation for the analysis and strategy definition phases by specifying key elements in the project such as the timeframe, scope and team involved (Schoemaker, 1995; Schwartz, 1996; Shell International, 2003; van der Heijden, 2005).

Perception analysis: This phase is also known as "pioneering" (Shell International, 2003) or "identifying the major stakeholders" (Schoemaker, 1995). Its purpose is to analyze the perceptions of the managers involved in the scenario project. Their "mental models" are identified and then challenged by confronting them with other models, such as those derived from external opinions. In this way, the managers learn about the interests and expectations of external stakeholders and gain insights into their own assumptions. This gives them a more holistic view of possible maps of the future (Schoemaker, 1995; Shell International, 2003).

Trend and uncertainty analysis: This step is found in all major approaches to scenario planning. Sometimes it consists of two parts, as in Schoemaker's "identify basic trends" and "identify key uncertainties" (Schoemaker, 1995). Alternatively it consists of a single step, as in van der Heijden's "data analysis" (van der Heijden, 2005). The scenario team analyzes the key drivers affecting the company or industry. These factors are then ranked by degree of uncertainty and potential impact on the company. Thus, the key drivers are identified that must be considered in the company's planning (Schoemaker, 1995; Schwartz, 1996; Shell International, 2003; van der Heijden, 2005).

Scenario building: This forms the core step of traditional approaches to scenario planning. The uncertainties identified in the preceding step are converted into distinct scenarios that describe different future states of the world. Other driving forces are added so as to create consistent, plausible stories about the future. Potential developments are also considered, linking the present to a specific picture of the future (Schwartz, 1996; Shell International, 2003). The "scenario building" step broadens the participants' perceptions and creates the foundation for the subsequent "strategy definition" phase, in which possible consequences and action plans for each scenario are developed (Schoemaker, 1995; Shell International, 2003).

Strategy definition: This step is also known as "implications" (Schwartz, 1996) or "option planning" (van der Heijden, 2005). Companies test possible decisions or strategic options against the various scenarios that have been generated. This makes the company's strategy more robust and means that it can be applied in various potential future situations (Schwartz, 1996). It also means that the people responsible for strategy in the company can act more flexibly and have recourse to different strategic options depending on what happens in the future.

Monitoring: Some approaches include this sixth step. It is also known as "selection of leading indicators and signposts" (e.g. at GBN; Schwartz, 1996) or "reconnaissance" (e.g. at Royal Dutch Shell; Shell International, 2003). The company defines a number of indicators and then monitors them to check whether strategic changes are needed. Schoemaker (1995) and van der Heijden (2005) draw attention to the importance of monitoring the environment continuously and repeating the scenario process if drastic changes occur.

Scenario planning offers a number of benefits. However, as discussed further above, they can be complex and require a substantial investment in terms of time and resources, generally lasting between five months and a year (Bradfield, 2008; Moyer, 1996; Shell International, 2003). A major reason for this complexity appears to be the lack of standardization in most scenario planning approaches. Many analysts draw attention to the fact that there are no set recipes for creating scenarios (Schwartz, 1996). Very few scenario planning approaches offer standardized tools, and where they do, these tools are only relevant for specific process steps (Schoemaker, 1995;

van der Heijden, 2005). Many scenario experts are also unwilling to disclose the full methodology they use (Chermack et al., 2001). This makes traditional scenario planning techniques hard to replicate. Consequently, scenario processes vary widely and their quality depends greatly on who precisely is involved (Schwartz, 1996).

Another drawback of scenario planning is that its timeframe typically differs from that of strategic planning. Strategic planning commonly looks at the medium-term horizon, from three to five years. Traditional scenario planning, by contrast, is almost exclusively used for long-term planning, looking at periods of five years or more (Wack, 1985a; Moyer, 1996; Schwartz, 1996).

To overcome these drawbacks, certain adaptations to traditional scenario planning approaches are required. Scenario planning must be integrated into the strategic planning process. The scenario planning approach must be built on a systematic process. Clear frameworks must be defined for the individual process steps, reducing the complexity and time needed for implementation. We call this adapted approach "scenario-based strategic planning" and discuss it in detail in the following section.

3.3 DESIGNING A SCENARIO-BASED APPROACH TO STRATEGIC PLANNING

3.3.1 OVERVIEW

In this section we present a scenario-based approach to strategic planning. This approach consists of a structured process with standardized frameworks for its application. It enables corporate strategists to directly integrate scenario planning into the strategic planning process and thus meet the requirements of complex and volatile environments.

The scenario-based approach to strategic planning builds on the advantages of traditional scenario planning. By creating different scenarios, it allows decision makers to plan for multiple contingencies. At the same time, however, it broadens

the perceptions of strategists by integrating the perspectives of internal and external stakeholders into the planning process. In this way it creates a more "open" form of strategic planning.

Our approach is based on the six steps found in traditional scenario planning, as described above. For each of the six process steps we apply specific frameworks. Two of these frameworks are taken from traditional scenario planning. They are complemented by four new frameworks developed by us. The frameworks provide the structure for the analysis carried out in each step. They enhance and simplify the process of generating scenarios. This makes the process easier and quicker to apply in practice. Figure 3.1 gives an overview of the six steps and the related frameworks.

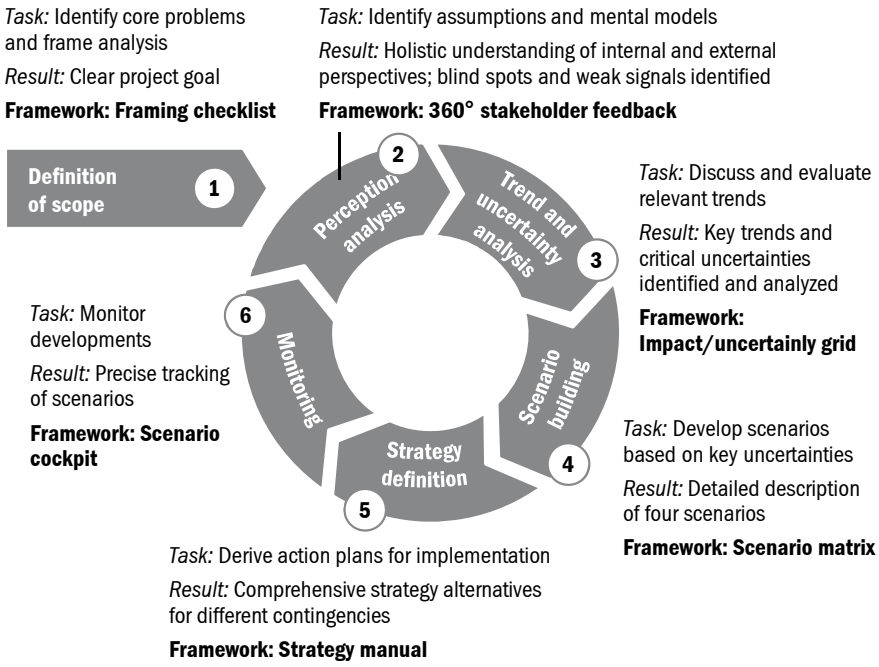
In our experience, the time required to carry out the scenario planning process using our new approach is just four to six weeks, roughly the same amount of time as is typically needed for the strategic planning process (Grant, 2003; Ocasio/ Joseph, 2008). Our approach also meets the challenges of increasing volatility, rapid change and complexity of the environment. It does this by integrating different stakeholders into the planning process and allowing for different outcomes. This results in a comprehensive set of strategic options rather than a single option.

Below, we present each of the six steps and related frameworks in turn. For the purposes of illustration, we look at two actual case studies based on projects that we have carried out ourselves. The industries involved are characterized by a high degree of volatility, rapid change and complex environments: the German long-distance heating and the German electronic retail sector.

STEP 1: DEFINITION OF SCOPE

In Step 1 we define the overall scope of the project. Our framework is the *framing checklist.* This checklist ensures that all key aspects are covered. It specifies the goal, strategic level of analysis, participants, time horizon and stakeholders to be included in the process. It consists of five questions (see Figure 3.2). The strategic planning team must answer these questions and receive approval from the top management team before the actual planning process begins.

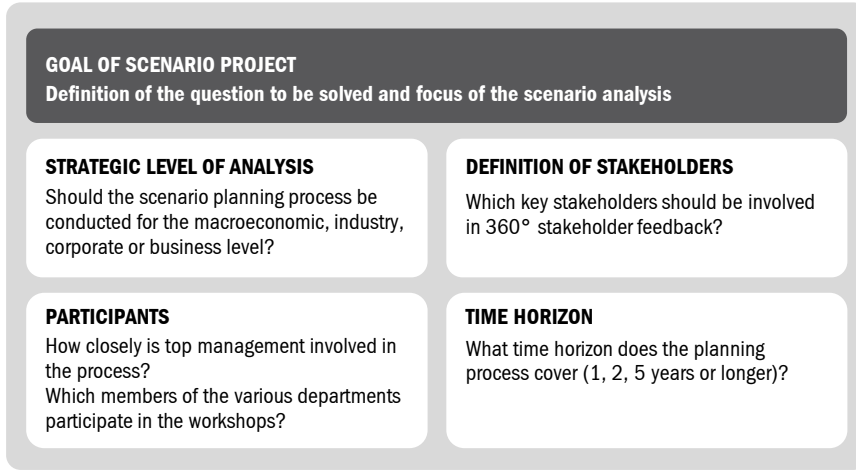
FIGURE 3.1: THE HHL-ROLAND BERGER SCENARIO-DEVELOPMENT PROCESS



Defining the project goal is particularly important as it sets the scope for the entire analysis. This may be global or focused on specific regions, countries or such like. For example, in our project in the consumer electronics retail industry, the scope was limited to stationary consumer electronics retailers in Germany and existing online operations were excluded from the planning process.

The framework ensures that all participants in the process – typically corporate and business unit managers as well as strategic planners – are "on the same page" as far as the goals of the strategic planning process are concerned. To ensure relevance for strategic planning, we usually set the time horizon at three to five years. However, for industries with shorter planning cycles, such as telecommunications or IT, this time horizon can be reduced. In terms of the strategic level of

FIGURE 3.2: FRAMING CHECKLIST



analysis, most scenario-based strategic planning is at the level of the business unit or the corporate level.

Perhaps the most important aspect of the framing checklist is defining the relevant internal and external stakeholders. The selection of stakeholders should be as broad as possible. We identify eight different categories of internal and external stakeholders: the company's management, shareholders and employees in key operating positions (e.g. marketing, sales, R&D) are internal stakeholders; its suppliers, customers, financial analysts, governmental institutions and the general public are external shareholders. In Step 2 of the process, the company contacts key individuals in these groups to gain their input.

STEP 2: PERCEPTION ANALYSIS

The goal of Step 2 is to examine the perspectives of internal and external stakeholders on future developments in the industry. This opens up the strategic planning process. The assumptions and "mental models" of internal stakeholders, particularly the top management team, are challenged by confronting them with the views of external stakeholders.

Step 2 results in a comprehensive list of factors potentially influencing the future of the industry. These factors are then evaluated in terms of their potential impact on the company's performance and their degree of uncertainty. The views of the different stakeholder groups are compared. This allows the company to identify any blind spots (areas consciously or unconsciously ignored) and weak signals (initial indicators of future changes in the environment). These factors are particularly important as they open up managers' thinking about the future and make the planning process more comprehensive.

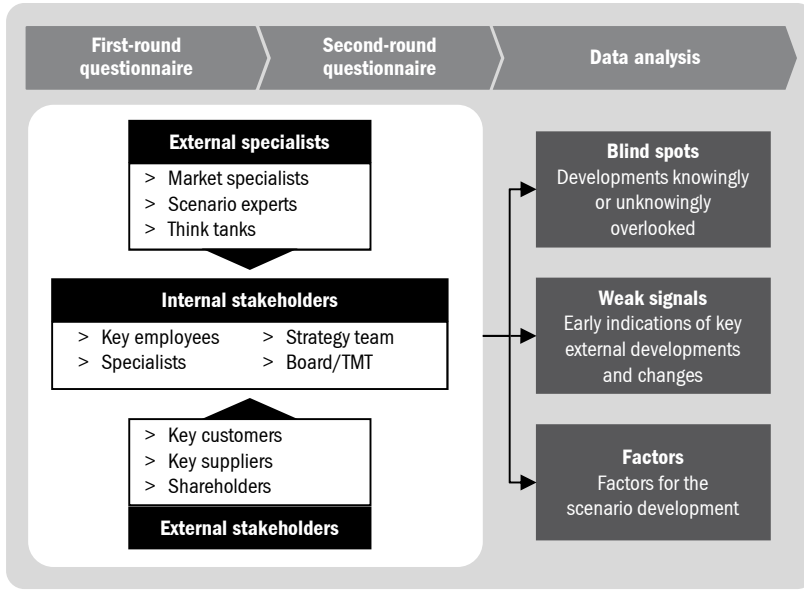
Our framework for Step 2 is what we call *360° stakeholder feedback.* At its core lies a two-part survey, available both online and offline, that analyzes the perceptions of the internal and external stakeholders identified in the framing checklist (see Figure 3.3). First, the company sends stakeholders a questionnaire consisting of open questions about factors shaping the industry now and in the future. This questionnaire covers six micro-environmental dimensions: political, economic, social, technological, ecological and legal dimensions (PESTEL analysis). These dimensions shape the company's future but are usually beyond their control; the company simply has to adapt to them. The factors indicated by respondents as relevant are then clustered to give a total of 40 different factors. Looking at this number of factors has proven to be effective; it allows for a wide range of different factors to be considered without creating too much complexity.

Next, survey participants are sent a new questionnaire consisting of closed questions about the 40 factors. They are asked to rate each factor with regard to its impact on the company's performance and its level of uncertainty on a scale from one to ten, where one represents "low/weak" and ten "high/strong".

The 360° stakeholder feedback tool results in a list of key factors influencing the industry. With this list, the company can easily identify possible changes in the macro environment as well as any blind spots or weak signals.

In our project in the German electronic retail industry, the framework resulted in a list of factors ranging from economic factors (e.g. "market concentration on the retailers' side") to technological factors ("digitalization of new products"). We were

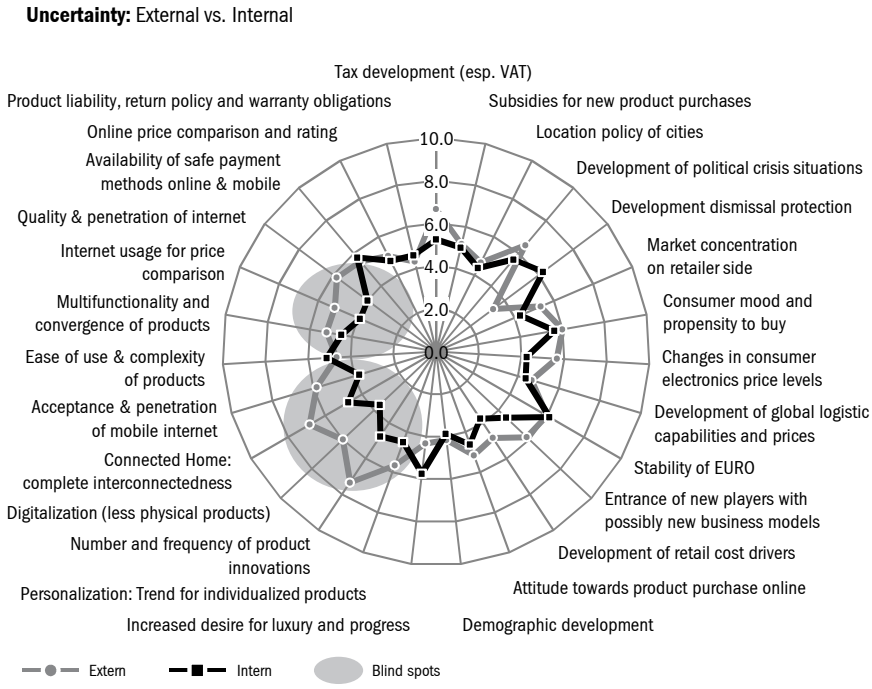
FIGURE 3.3: THE 360° STAKEHOLDER FEEDBACK PROCESS



also able to identify factors rated significantly higher by external stakeholders than by the company's management, i.e. the company's blind spots. These related mainly to technological factors such as "acceptance and penetration of the mobile Internet" and "using the Internet for price comparison" (see Figure 3.4). The latter factor was also identified as a weak signal – a factor that only a few participants named in the first round of the questionnaire but which was rated highly in terms of uncertainty and impact by all participants in the second round. As a consequence, the Internet and mobile price comparison were explicitly included in Step 3 of the process. These factors subsequently formed a major part of the strategy of one major German electronic retail company that participated in our analysis.

Step 2 focuses the management's attention on key emerging trends in the industry and makes them re-examine their perceptions of how technological

FIGURE 3.4: BLIND SPOT ANALYSIS FOR THE ELECTRONICS RETAIL INDUSTRY



developments may impact the industry. This process promotes strategic discussion within the strategic planning and top management teams.

STEP 3: TREND AND UNCERTAINTY ANALYSIS

Step 3 structures and prioritizes the factors identified in Step 2 as a basis for determining two scenario dimensions. These two dimensions are key for creating the scenarios in Step 4.

Our framework for Step 3 is the *impact/uncertainty grid.* This was first proposed in the 1970s by Kees van der Heijden as a way of structuring the large number of input variables normally used in scenario planning. It was first applied in

scenario development at Royal Dutch Shell (van 't Klooster/van Asselt, 2006). The impact/uncertainty grid systematically positions influence factors according to their impact on the company's performance and their degree of uncertainty (see Figure 3.5). The position of individual factors in the matrix is determined by their average evaluation by the stakeholders in Step 2 (the perception analysis). However, some factors will be evaluated differently by different stakeholder groups, so the members of the planning and top management teams should also discuss these automatically generated positions, revising them where necessary.

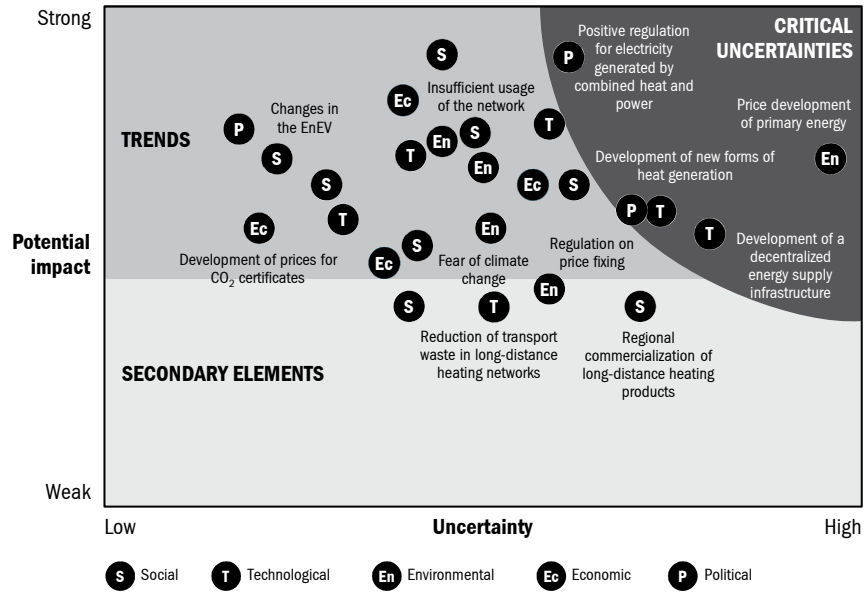
The impact/uncertainty grid is divided into three sections. The bottom section contains factors that have a relatively minor impact on the performance of the company; these "secondary elements" are not further considered in the scenario planning process. In our project in the German long-distance heating industry, for instance, secondary elements included "regional commercialization of long-distance heating products" and "reduction of transport waste in long-distance heating networks."

The upper left-hand section of the grid contains factors that have a relatively major impact on the performance of the company and which are relatively easy to predict. These are simply known as "trends". Important trends in the case of the long-distance heating industry included "under-utilization of the long-distance heating network" and "development of direct industry subsidies" These trends are later used in Step 4 in the detailed descriptions of scenarios (Schwartz, 1996).

The upper right-hand section of the grid contains the most important factors for scenario development: "critical uncertainties". These are factors with a major impact on the company and a high degree of uncertainty. They serve as the basis for identifying the two scenario dimensions, typically the result of combining or clustering closely related critical uncertainties.

In practice, we usually find between three and seven critical uncertainties per industry or business. In the long-distance heating industry, for example, we identified two political uncertainties, including the "regulation on price-fixing for long-distance heating products" and "a positive regulation for electricity generated by combined heat and power", which we then combined into the first scenario

FIGURE 3.5: IMPACT/UNCERTAINTY GRID FOR THE GERMAN LONG-DISTANCE HEATING INDUSTRY



dimension: "relative price for long-distance heating products compared to other heat generation methods". We further identified three technological uncertainties, including "development of new forms of heat generation", which we combined into the second scenario dimension: "degree of autonomous heat generation."

STEP 4: SCENARIO BUILDING

In Step 4, specific scenarios are developed for the company or industry and described in detail. Our framework for this step is the *scenario matrix.* The scenario matrix uses the results of the trend and uncertainty analysis. Like the impact/uncertainty grid, the scenario matrix was developed in the 1970s by Kees van der Heijden and first used by Royal Dutch Shell (van 't Klooster/van Asselt, 2006).

Two extreme values are defined for each scenario dimension; these set the boundaries for the scenario matrix. The matrix consists of four quadrants, reflecting four distinct future scenarios (van 't Klooster/van Asselt, 2006). Four is generally regarded as the maximum number of scenarios that decision makers are able to process (Wack, 1985b; van der Heijden, 2005). Each of the scenarios is assigned a distinctive name. In our project in the German long-distance heating industry, for example, we used the two scenario dimensions "relative price for long-distance heating products compared to other heat generation methods" and "degree of autonomous heat generation". We named the four resulting scenarios "Long-Distance Heat 2.0", "Ecological Renaissance", "Decline" and "Clearance Sale" (see Figure 3.6). The different sectors of the matrix ease the creation of scenarios as they visualize distinct future environments.

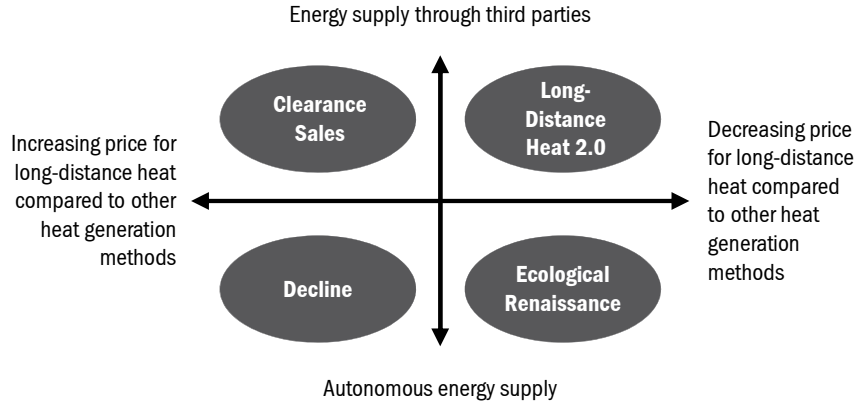
Using the scenario matrix, we then add detail to the scenarios. This is done in two steps. First, an "influence diagram" is created, showing the series of causes and effects that lead to different situations with regard to the dimensions. The trends and critical uncertainties identified in Step 3 are an integral part of these relationships. The main purpose of the influence diagram is to ensure consistency between the scenarios.

In our project in the German long-distance heating industry, the influence diagram included the factors "changes in sales volume" and "structural developments in the energy sector." Both of these factors have an impact on the development of the regulatory environment in Germany. Figure 3.7 gives an example of a simplified influence diagram from the German long-distance heating industry.

We then create a storyline for each scenario, based on the influence diagram. Different storylines can be created by changing how the factors in the influence diagram develop. The storylines are used to add detail to the scenarios. For example, the following are summarized descriptions of the four scenarios that we developed in 2012 for the German long-distance industry (scenarios are for the year 2021 from the perspective of German long-distance heat producers located in the former eastern part of Germany):

- *Long-Distance Heat 2.0* describes a future where long-distance heat producers can expand their market power in eastern Germany. Having stopped the emigration

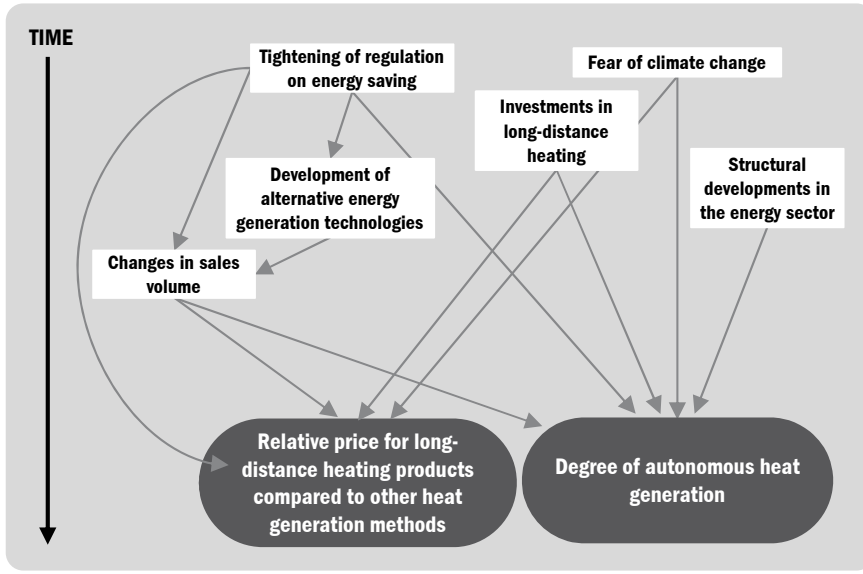
FIGURE 3.6: SCENARIO MATRIX FOR THE GERMAN LONG-DISTANCE HEATING INDUSTRY IN 2021



of habitants from urban areas in eastern Germany and using renewable energy sources in the process of generating long-distance heat, helps producers to attract new customers. In this scenario the German government actively supports combined heat and power generation meaning long-distance heat producers face minimal regulatory barriers.

- *Ecological Renaissance* describes a highly competitive market where long-distance heat producers can absorb customer losses by using renewable energy sources. However, due to high energy prices and energy black-outs as a consequence of an overloaded electricity grid customers increasingly produce their electricity and heat by themselves. Regulation is focused on creating a reliable and cost efficient energy infrastructure rather than on supporting specific power generation systems.
- *Decline* is a world in which German long-distance heat producers slowly disappear. Customers favor autonomous energy and heat production and no longer want to rely on energy companies. Fast technological developments in the field of decentralized energy production technology such as block heating power plants make these technologies affordable for small households. Regulation favors decentralized energy production to break the market power of the big energy companies.

FIGURE 3.7: SIMPLIFIED INFLUENCE DIAGRAM FOR THE GERMAN LONG-DISTANCE HEATING INDUSTRY



◆ *Clearance Sale* describes a future where German long-distance heat producers can no longer compete against conventional heating systems due to technological advancements. Germany's electricity grid could not cope with the massive use of renewable energy leading to severe black-outs. These developments led to increasing governmental support for traditional energy production technologies meaning long-distance heat becomes a niche product that slowly fades out.

STEP 5: STRATEGY DEFINITION

In Step 5, the company derives concrete strategies and options for each of the four scenarios. This step takes the company from merely thinking about the future to developing concrete action plans.

Our framework is the *strategy manual*. First, the company derives specific strategic recommendations for each of the scenarios. Next, it compares these four sets of strategic recommendations and identifies common elements. Experience shows that the shorter the planning cycle, the more strategy elements will be common to all scenarios. Finally, the company takes these common strategy elements and forms them into a core strategy. The company can implement this core strategy whatever happens, irrespective of developments in any of the scenarios.

In our project in the long-distance heating industry, we drew up a strategy manual for companies active in the industry and politicians using the method described above. First, we derived strategic recommendations for each of the four scenarios, then we compared them to identify common elements, and finally we formed a core strategy – in this case, an intelligent regulation of the industry to ensure it supports Germany's efforts towards using more renewable energy sources. Industry regulation is a core element of the future development of the industry meaning companies need to clearly communicate their goals to regulators. Moreover companies have to become more active in using renewable sources as part of their heat generation processes. Supported by an adequate public relations campaign the industry has to ensure that it is seen as an enabler of Germany's future energy policy rather than an outdated technology. This strategy was found to be robust for all four scenarios.

The strategy elements that are *not* common to all scenarios can now be taken and used to develop scenario-specific strategic options that complement the core strategy. Depending on the environment, some of these strategic options should be executed immediately. Others require a certain level of investment, and still others can be filed – with an option for implementing them later on, should they become relevant.

In the case of our project in the long-distance heating industry, the core strategy was complemented by scenario-specific strategy options. As for the long-distance heating industry, we developed an "Ecological Renaissance" scenario (see above). In this scenario, high energy prices and an inefficient electricity grid dominate. Two strategic options deliver positive results: The usage of renewable energy sources as

part of the generation process of long-distance heat and the constant technological advancement of combined power and heat production facilities. Both allow industry participants to be part of Germany's effort to use more renewable resources and improve energy efficiency.

By increasing the number of strategic options available, the strategy manual enables companies to react quickly to changes taking place around them. This means that they are better able to meet the challenges posed by an increasingly dynamic, complex and volatile environment.

STEP 6: MONITORING

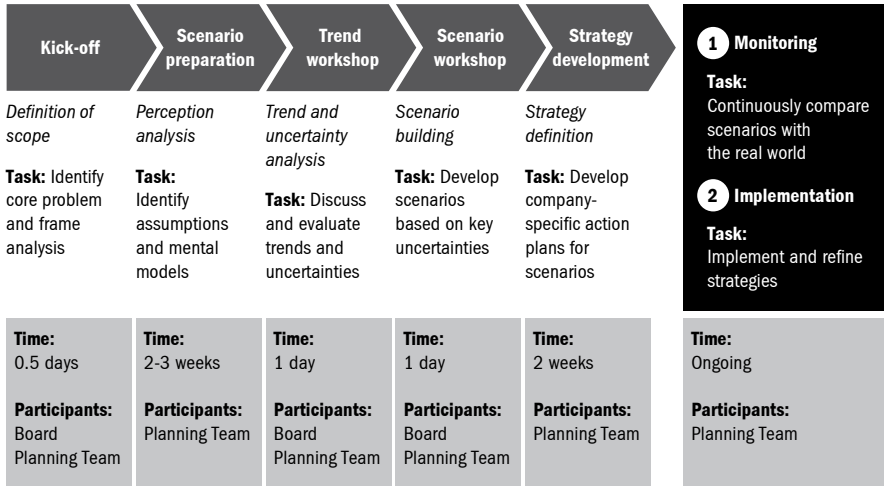
Step 6 is the final step. It takes the company from strategy creation to strategy implementation. The aim of this step is to monitor developments in the industry and determine whether any adjustments to strategies are needed.

Our framework for Step 6 is the *scenario cockpit.* This consists of key indicators for changes in the company's environment. It reveals which of the scenarios is closest to the developments taking place in the real world. In most cases, the company can derive these indicators directly from the influence diagram (Step 4). For each indicator in each scenario, a maximum range for the values must be set. Comparing these ranges with the actual values then reveals which scenario is closest to reality and which strategy option should be implemented alongside the core strategy.

In our project in the long-distance heating industry, indicators included changes in the electricity price on the spot market or technological advancements in competing technologies leading to higher efficiencies when producing heat or electricity. Companies operating in the long-distance heat industry can now regularly monitor the suggested indicators so they can implement the relevant strategy options quickly when necessary.

The scenario cockpit determines which strategic options need to be executed and when, depending on developments in the environment. It also helps companies assess whether the scenarios are still valid and plausible or if they should be revised.

FIGURE 3.8: THE SCENARIO-BASED STRATEGIC PLANNING PROCESS



3.3.2 INTEGRATING THE APPROACH INTO THE STRATEGIC PLANNING PROCESS

Scenario-based strategic planning can be integrated into companies' planning processes in six steps. This is simple to implement and takes just four to six weeks (see Figure 3.8).

The scenario-based strategic planning process is carried out by a planning team. This team coordinates the process and conducts the necessary analyses. The top management team and the heads of business units should attend the kick-off meeting and the two workshops – the "trend workshop" and the "scenario workshop" – where the scenario dimensions and the scenarios are drawn up. All major decisions are taken at these workshops.

To prepare for the scenario workshop, the planning team uses the 360° stakeholder feedback tool. At the workshop, the scenarios are drawn up and initial steps for strategy implementation are derived. After the workshop, the planning team defines the core strategy and corresponding strategy options. The strategy proposal is then presented to the Board, which decides which strategy and action plans to pursue. Strategy implementation goes hand-in-hand with constant monitoring of developments in the real world using the scenario cockpit. This enables the planning team to adjust the chosen strategy depending on what happens in the environment.

3.4 CONCLUSION

In this chapter we present our new, scenario-based approach to strategic planning. This approach integrates scenario planning into strategic planning. It thus rises to the challenges presented by increasingly uncertain business environments.

Our new approach avoids the problems associated with traditional scenario planning, which can be highly complex and time-consuming. It is a clearly structured and tool-based process that is easy to apply and can be integrated into a company's standard strategic planning process.

Our six-step process is rooted in traditional scenario planning frameworks. It allows companies not only to generate the best strategy, but also to plan for different potential future developments. At the same time, it integrates other perspectives into the strategic planning process. This means that the company's planning takes all eventualities into account and can react faster to changes in the environment – giving the company a distinct advantage over its competitors in an increasingly uncertain world.

3.5 REFERENCES

Bishop P., Hines A., Collins T. 2007. The Current State of Scenario Development. An Overview of Techniques. *Foresight* 9(1): 5-25.

Birkinshaw J., Hamel G., Mol MJ. 2008. Management Innovation. *Academy of Management Review* 33(4): 825-845.

Bradfield RM. 2008. Cognitive Barriers in the Scenario Development Process. *Advances in Developing Human Resources* 10(2): 198-215.

Camillus JC., Datta DK. 1991. Managing strategic issues in a turbulent environment. *Long Range Planning* 24(2): 67-74.

Chermack TJ., Lynham SA., Ruona WEA. 2001. A Review of Scenario Planning Literature. *Futures Research Quarterly* 17(2): 7-31.

Chermack TJ. 2011. *Scenario Planning in Organizations – How to Create, Use, and Assess Scenarios*. San Francisco: Berrett-Koehler.

Cornelius P., Van de Putte A., Romani M. 2005. Three Decades of Scenario Planning in Shell. *California Management Review* 48(1): 92-109.

Dye R., Sibony O., Viguerie P. 2009. Strategic planning: Three tips for 2009. *The McKinsey Quarterly* 9(1), 1-2.

Eisenhardt KM. Sull DN. 2001. Strategy as Simple Rules. *Harvard Business Review* 79(1): 106-116.

Elbanna S., Child J. 2007. Influences on strategic decision effectiveness: Development and test of an integrative model. *Strategic Management Journal* 28(4): 431-453.

Ghobadian A., O'Regan N., Thomas H., Liu, J. 2008. Formal strategic planning, operating environment, size, sector and performance. *Journal of General Management* 34(2): 1-20.

Grant RM. 2003. Strategic Planning in a Turbulent Environment: Evidence from the Oil Majors. *Strategic Management Journal* 24(6): 491-517.

Miller CC. 2008. Decisional Comprehensiveness and Firm Performance: Towards a More Complete Understanding. *Journal of Behavioral Decision Making* 21(5): 598-620.

Millet SM. 2003. The Future of Scenarios: Challenges and Opportunities. *Strategy & Leadership* 31(2): 16-24.

Moyer K. 1996. Scenario Planning at British Airways-A Case Study. *Long Range Planning* 29(2): 172-181.

Ocasio W., Joseph J. 2008. Rise and Fall- or Transformation? The Evolution of Strategic Planning at the General Electric Company 1940-2006. *Long Range Planning* 41(3): 248-272.

Phelps R., Chan C., Kapsalis SC. 2001. Does scenario planning affect performance? Two explanatory studies. *Journal of Business Research* 5(1): 223-232.

Porter ME. 1979. How Competitive Forces Shape Strategy. *Harvard Business Review* 57(2): 137-145.

Porter ME. 1980. *Competitive Advantage: Techniques for analyzing Industries and Competitors*. New York: The Free Press.

Porter ME. .1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press.

Rigby D., Bilodeau B. 2007. Selecting management tools wisely. *Harvard Business Review* 85(12): 20-22.

Ringland G. 1998. *Scenario Planning: Managing for the Future*. Chichester: Wiley.

Schoemaker P. 1993. Multiple Scenario Development – Its Conceptual and Behavioral Foundation. *Strategic Management Journal* 14(3): 193-213.

Schoemaker P. 1995. Scenario Planning: A Tool for Strategic Thinking. *Sloan Management Review* 37(2): 25-40.

Schwartz P. 1996. *The Art of the Long View. Planning for the Future in an Uncertain World.* New York: Doubleday Publishing.

Shell International. 2003. *Scenarios: An Explorer's Guide.* London: Shell.

Shimizu K., Hitt MA. 2004. Strategic flexibility: Organizational preparedness to reverse ineffective strategic decisions. *Academy of Management Executive* 18(4): 44-59.

van der Heijden K. 2005. *Scenarios: The Art of Strategic Conversation*. Chichester: Wiley.

van 't Klooster SA., van Asselt, MBA. 2006. Practicing the scenario-axes technique. *Futures* 38(1): 15-30.

Verity J. 2003. Scenario Planning as a strategy technique. *European Business Journal* 15(4): 185-195.

Wack P. 1985a. Scenarios: Uncharted waters ahead. *Harvard Business Review* 63(5): 73-89.

Wack P. 1985b. Scenarios: Shooting the Rapids. *Harvard Business Review* 63(6): 139-150.

Whittington R., Cailluet L. 2008. The crafts of strategy. *Long Range Planning* 41(3): 241-247.