



SCENARIOS AS STRATEGY WORK TOOL

Case Study: Global Scenarios Project of Nordic West Office

Lappeenranta–Lahti University of Technology LUT

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ABSTRACT

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Scenarios as Strategy Work Tool

Case: Global Scenarios Project of Nordic West Office

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The study examines how Finnish companies utilised the insights of the Nordic West Office's Global Scenarios project in their strategy work. Following Shell's scenario method, the Global Scenarios project evaluated changes in geopolitical, economic, and technological business environments until 2030. The data was collected through interviews with seven Finnish business executives. The research method was a qualitative case study.

The study shows that all companies participating in the Global Scenario project have utilised scenarios in their strategy work. The ways of using scenarios and experiences of benefits and challenges of scenario work varied between participants. Nevertheless, the project provided several benefits for the participants, including a systematic approach to the future that is necessary in dealing with uncertainties in the business environment and strategic planning. Most participants thought that scenario work improved their company's future preparedness. Moreover, the study showed that scenarios provided a common situational picture or vocabulary, which proved helpful for organisations. Scenario workshop trips were also considered valuable experiences that enhanced new thinking and helped to understand the world.

The study's findings supported the hypothesis that scenario analysis is an effective strategy tool for companies operating in uncertain business environments, reinforcing the earlier understanding of its benefits. The study provides insights into the executives' use of scenario analysis as a strategy work tool.

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Tutkimuksessa tarkastellaan, miten suomalaisyritykset hyödynsivät Nordic West Officen Global Scenarios -projektin tuloksia strategiatyössään. Globaalit Skenaariot -projekti arvioi geopoliittisia, taloudellisia ja teknologisia muutoksia liiketoimintaympäristöissä vuoteen 2030 mennessä mukailen Shellin skenaariometodia. Tiedot kerättiin haastattelemalla seitsemää suomalaista yritysjohtajaa. Tutkimustapana on kvalitatiivinen tapaustutkimus.

Tutkimus osoittaa, että kaikki Globaalit Skenaariot -projektiin osallistuvat yritykset ovat käyttäneet skenaarioita strategiatyössään. Skenaarioiden hyödyntämistavat sekä kokemukset skenaariotyön hyödyistä ja haasteista vaihtelivat osallistujien kesken. Hanke tarjosi osallistujille useita hyötyjä, muun muassa systemaattisen tulevaisuuden tarkastelumallin, joka on yrityksille arvokas strategisessa suunnittelussa ja epävarmassa liiketoimintaympäristössä. Enemmistö osallistujista koki skenaariotyön parantaneen valmiutta tulevaisuuden haasteisiin. Tutkimus osoitti, että skenaariot tarjosivat osallistujayrityksille yhteisen tilannekuvan tai sanaston. Myös skenaariotyöpajamatkat koettiin arvokkaina kokemuksina, jotka auttoivat kehittämään ajattelua ja ymmärtämään maailmaa paremmin.

Tutkimuksen tulokset tukevat aikaisempia havaintoja skenaarioanalyysin hyödyistä; skenaarioanalyysi on tehokas työkalu epävarmassa liiketoimintaympäristössä toimiville yrityksille. Tutkimus tuo esiin yritysjohtajien näkökulman skenaarioanalyysin käyttöön.

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1 Introduction

Developing a strategy is always a challenge for businesses. It is especially challenging in a volatile business environment. Today, businesses are confronted by geopolitical challenges and an increased political risk in most parts of the world. It is often argued that the scenario method provides a valuable solution that enables organisations to comprehend crucial uncertainties and their impact on decision-making and strategic planning. Therefore, several researchers claim this strategic tool is powerful as it illuminates different plausible future paths in complex business environments (Wilkinson and Kupers, 2013; Postma and Liebl, 2005; Van Der Heijden, 2000). This study aims to test this hypothesis in a business case by interviewing seven business executives who have participated in the scenario analysis.

The Russian invasion of Ukraine in February 2022 has highlighted the need for global companies to prepare for geopolitical risks and build resilience. As a result of the war, over 1,000 companies had to reduce their operations in Russia, which led to disruptions in energy, food security, and supply chains. In addition, multinational corporations must navigate the consequences in Europe and strategic competition in Asia while managing political risks and conflicts across the Middle East, Africa, and South Asia. (Grant, Haider and Raufuss, 2023)

In 2024, there will be 70 elections worldwide, where more than half of the global population can vote. The US presidential election holds significant importance regarding its political and economic implications, such as climate policy and military support for Ukraine. The emergence of artificial intelligence (AI) will accelerate technological advancements and regulations, which will inevitably impact job opportunities. The transition to clean energy and the competition for natural resources will significantly impact global trade and geopolitics. (Standage, 2023) However, at a time of polarisation and populism, the outcomes of elections can fundamentally change the local business environment for companies.

The World Economic Forum has identified four significant forces shaping global risks over the next decade. They are climate change, demographic changes, technological advancements, and the evolution of geopolitical power. (World Economic Forum, 2023)

The scenario method is widely used as a strategic management and planning tool in the business sector (Chermack and Coons, 2022; Wilkinson and Kupers, 2013; Van Der Merwe,

2008). Likewise, scenarios have been a topic of intense scholarly discussion (Tiberius, Siglow and Sendra-García, 2020; Van Der Merwe, 2008; Bood and Postma, 1997). This master's thesis continues the research tradition of the scenario method by exploring how specified Finnish companies have used scenario analysis as a strategy work tool.

This qualitative case study investigates 1) whether Nordic West Office's Global Scenarios project participants used scenario analysis insights in their strategy work and 2) how participating companies benefited from the project.

The scenario analysis of the Global Scenarios project followed Shell's scenario approach and evaluated critical changes in the geopolitical, economic, and technological business environments. The project involved 10 Finnish companies and was conducted in 2023 to identify plausible future paths until 2030. Risto E J Penttilä, CEO of the Nordic West Office (NWO), facilitated the project, and his views and objectives of the project were explored through an interview. Data was collected by interviewing seven Finnish business executives who were part of the project. The research method used for data analysis was deductive content analysis.

The results showed that scenarios were beneficial and utilised in strategy work in all participant companies. The findings strengthened the earlier insights of scenario analysis as a valuable strategy tool for businesses operating in uncertain environments. For most Global Scenarios participants, increasing geopolitical uncertainty was a reason to join the project. The scenario approach helped participating companies to structure the world and improved their ability to think about the future systematically. The results indicate that scenario planning helps organisations create a shared understanding of the global business environment. Furthermore, scenarios give organisations a common vocabulary that enables them to discuss possible future developments. Expectations of the Global Scenarios project varied depending on the company but were still parallel with the NWO's offering. Even though participants' expectations for scenario work were high, they were met well. Most participants thought scenario work had improved their company's future preparedness. Scenario workshop trips abroad, as well as meetings with different think tanks, institutions, and people, were essential to the project.

Previous studies have extensively discussed the scenario approach theory and practical implications, providing an understanding of this strategy tool. Stenfors et al. (2006, p. 930)

suggest that more research is needed to understand how executives use strategy tools. According to Phadnis, Caplice and Sheffi (2016), there is almost no empirical evidence of the effect of scenario planning on executive judgment despite anecdotal examples illustrating it. According to Meadows and O'Brien (2020, p. 158), scenario literature often fails to differentiate between scenario developers and users. There is a common assumption that both roles are fulfilled by the same individuals, even though this may not always be true in practice. This study aims to contribute to filling these research gaps. The study also provides insights into customers' views and their customer satisfaction with NWO. Nevertheless, the findings are limited to assessing just one implication of Shell's scenario method as a strategy tool. The study does not compare the scenario method with other strategy tools or evaluate similar scenario work projects offered by different experts.

The study begins by presenting a literature review of the strategy work, tools, and scenario approach. The theory of the scenario approach focuses on Shell's scenario tradition. Next, the study gives an overview of the NWO's scenario project by opening the content of project workshops and the project's objectives. It then explains the qualitative case study method used in the study. Finally, the results are discussed, and conclusions are presented.

2 Literature review: Strategy work tools and scenario analysis

2.1 Strategy work and tools

Strategy can be defined as the goals and objectives of a business. Organisations implement plans, policies, ways of action, resource allocation, and tasks to reach these goals. Different scholars have defined strategy in several ways. All the definitions emphasise one or more elements of strategy and the relationship between vision, mission, and value statements. Strategic management is a framework for analysing the environment, integrating enterprise activities, learning, and adapting to change. It ensures business continuity and creates value for shareholders despite the complex environmental changes. As the world changes continuously, executives must tolerate increasing risks to create value for shareholders and society. Uncertain conditions today require a resilience-focused strategy that can adjust to change. (Dindarian, 2023, pp. 21-29)

Most organisations rely on strategy to manage fast-changing environments. Strategic planning is the process by which goals and objectives are developed. It also describes how to achieve them. (Chermack, 2021, p. 4) In the literature, strategic management is often described as supporting an organisation's long-term success. While managing a current situation is central to operational management, strategic management focuses on the future. Strategy is a procedure for the success and profitability of a company. Despite several varying definitions, strategy is one key concept in management research. As Hakala and Vuorinen (2020, p. 2) conclude, "Strategy is a result of a series of procedures implemented to help an organisation achieve success in the future: it is a conscious, purposeful effort to choose a direction for the organisation in an ever-changing environment."

Strategy-making is challenging because managers always need to do it under uncertain conditions. Information on the environment may be unclear or contradictory. Strategy tools have been developed to help managers deal with the uncertainties in strategy work. (Kaplan and Jarzabkowski, 2006, pp. 7-8)

Strategic management helps organisations to focus their activities, drive efficiency, and allocate resources optimally. Organisations must understand their operational environment

and resource constraints. They must be able to combine experience-based activities with foresight-based activities. Even though strategic management relies on operational management, they are distinct management areas. The scope of strategic management is broader, and it facilitates complexity, nonroutine results and unforeseen situations that may affect the entire business, not just a specific part of operations. In uncertain environments, strategic decision-making is emphasised in strategic management. The strategic decisions aim to ensure the organisation's future success. (Schühly, 2022, pp. 41-42)

Many organisations employ strategic management and thinking that emphasises participation and is extended holistically throughout the organisation. In addition to group-level strategies, business-unit strategies have become more popular. Organisations also must align their strategies with constant uncertainty. Therefore, companies have moved towards continuously seeking competitive advantage rather than long-term planning and implementing fixed plans. Strategy can be defined as a tool to facilitate performance, achieve the organisation's objectives, and cope with uncertainty. Strategies may take different forms and answer the questions of what, how, when, and why an organisation does. Strategy tools are useful in identifying the relevant activities required to achieve success. (Hakala and Vuorinen, 2020, pp. 5-8)

In turbulent times, strategic design aims to develop a new and distinct strategy for the future. Strategic design requires innovative and creative skills. Designers must be able to imagine future change to enact purpose in the organisation. Strategic design is a creative and learning activity that corporation entrepreneurship and innovation can rely on. (Tighe, 2019, p, 42)

Strategy work with a purpose and effective decision-making processes have become essential in knowledge-based global competition. Companies prosper on growth and competitive advantage. They need to find more successful ways of working with and managing knowledge. Executives have gradually started to use information technology to cope with everyday work demands. The nature of the work has changed in recent decades, affecting the executives' use of strategic-level tools. (Stenfors et al. 2006. p. 930)

Hakala and Vuorinen (2020, pp. 11-36) argue that management should be critical of the strategy tools offered to their organisations. The tools can be used to simplify the complex reality. Even though simplifications may help to understand the world, they should not simplify it too much. Likewise, it is essential to remember that those simplifications do not

necessarily reflect the exact reality. If strategy tools rely on historical data, such as customer experience, there is a risk that the resulting strategy outcomes reflect more past experiences, even though they should protect the organisation against future shocks. Nevertheless, strategy tools can still stimulate thinking and bring new knowledge, helping to make better decisions in the strategy process. Strategies should be flexible to adapt to changing circumstances. In many cases, using several tools and methods may still be wise. Managers should be open to trying different tools and consider why they choose specific ones. There is no unambiguous answer to which tools to use. The decision of the most appropriate tools depends on the knowledge that the managers in an organisation don't have yet. Selecting tools that will shed light on the areas of uncertainty may be beneficial.

The scenario-building method is one standard strategy tool. Also, various analyses of resources, competencies, capabilities, or critical success factors are widely used. For example, the well-known resource analysis tool VRIO suggests that to maximise value capture, a company's resources should be valuable, rare, costly to imitate and organised. Likewise, standard methods are SWOT analysis that identifies strengths, weaknesses, opportunities, and threats, various benchmarking methods, and critical success factor analysis. Several studies support PESTLE analysis and its variants that analyse competitive environments and customers. PESTLE analyses political, economic, social, technological, legal, and ecological factors. Blue Ocean Strategy, Boston Consulting Group's matrix and McKinsey's version of the matrix are well-known strategy tools in the companies. Simple tools that are easy to adapt and do not require special effort of knowledge are typically most popular among practitioners. (Hakala and Vuorinen, 2020, pp. 13-21) A balanced scorecard is a framework that describes strategies for creating value from both tangible and intangible assets. The elements measuring performance in a balanced scorecard are financial performance, customer success, internal processes and learning and growth objectives. (Kaplan and Norton, 2004)

A global survey of Bain and Company showed that in 2023, managers appear to be carefully selecting their management tools. Compared to the situation in the early 1990s, managers are using fewer tools and satisfaction with the tools they are using has increased. Managers can better find the approach that matches their company's needs and ignore the hype. The top 25 Management Tools and Trends categories in 2023 were digital and innovation, people and organisation, operations, strategy and corporate finance, and sustainability. The listed

top strategy tools and trends for 2023 are Balanced Scorecard, Corporate Venture Capital (CVC), Dynamic Strategic Planning and Budgeting, Objectives and Key Results (OKRs), Scenario Analysis and Corporate Planning, and Stakeholder Strategies. (Rigby, Bilodeau and Ronan, 2023). These strategy tools and trends are described in Table 1.

Top 25 Management Tools & Trends for 2023: Strategy and corporate finance	
Tool/trend	Description
Balanced Scorecard	Measures organization's performance and shows whether management is achieving desired results.
Corporate Venture Capital (CVC)	Facilitates strategic investments, typically used by companies to invest in external start-ups.
Dynamic Strategic Planning and Budgeting	Creates processes to track evolving situations, discuss strategic implications, prioritize and test the most valuable opportunities, allocate resources to preserve flexibility, and measure results.
Objectives and Key Results (OKRs)	Goal-setting framework used by organizations to clarify what to work on and how to measure progress.
Scenario Analysis and Contingency Planning	Process that allows executives to explore and prepare for several alternative futures. It examines the outcomes a company might expect under a variety of operating strategies and economic conditions.
Stakeholder strategies	Way to grow value for a company's full business system (including shareholders, customers, employees, suppliers, and communities).

Table 1: Top strategy and corporate finance tools and trends for 2023 listed by Bain and Company (Rigby, Bilodeau and Ronan, 2023)

Effective strategy implementation requires relevant decisions and continuous adaptation, not just strategic analysis or diagnosis. Practical strategy actions might require continuous adjustments to changing circumstances. Some strategic tools can be argued to be more focused on developing actions, while others analyse the situation instead. Strategic tools may be beneficial in implementing strategy. However, they can never take strategic actions on behalf of people. (Hakala and Vuorinen, 2020, p. 31)

Using strategy tools generates new ideas, facilitates communication and collaboration, and helps cope with change. Executives can broaden their vision, analyse issues from various perspectives, and understand processes better with strategy tools. Today, organisations face increasingly dynamic environments, including high volatility, uncertainty, and complexity. This leads to higher information requirements for organisations. Like technologies, strategy tools are essential for processing information for strategy development and decision-making. Business environment characteristics also strongly influence the approaches of strategy practitioners. Strategy practitioners have a decisive role in organisations' capability to

process information. Their evaluation of the usefulness and effectiveness of the strategy tools in the environmental context strongly influences the use of the tools in organisations. (Rengarajan, Moser and Narayanamurthy, 2021, pp. 2-3)

Jarzabkowski et al. (2013) demonstrated that executives' educational backgrounds impact management practice and strategy tools. Four educational characteristics drive the adoption of strategy tools: level of formal education, frequency of management training, specificity of strategic management education, and time elapsed since formal education.

Stenfors et al. (2006) found that executives in Finnish companies actively use various strategy work tools to support making significant decisions. They expressed positive experiences, true interest, and optimistic attitudes towards the tools. Tools are used to achieve efficiency and for cognitive and collective purposes. The executives consider the tools to be crucial to their daily work environment. Though they may not be hands-on users, the tools are still vital to their conceptual work. Many different support tools are used in Finnish businesses. More straightforward tools, such as SWOT analysis, spreadsheet applications and balanced scorecards, were popular. Executives are not always aware of the methods behind the tools. New tools will be needed as the business environment becomes more unpredictable and intangible assets more critical. The more established are usually used in cases where qualitative information is required. Tools for strategy work typically provide a competitive advantage in industries with high turnover. Traditionally, strategy work tools have a strong position in engineering-oriented industries. Using strategic-level tools can be demanding and require too many resources. Therefore, they must be effective.

Strategy tools have been developed to help managers deal with the uncertainties they face in strategy work. Strategy tools are used during situation analysis and evaluation of strategic choices. This includes assumption tools to support a rational strategic decision-making process. Strategy tools are also used to generate and communicate ideas and to facilitate discussion. Strategy tools may be more useful as frameworks for debate and dialogue rather than tools for answering strategic problems. They can unite actors with diverse viewpoints and interests to make strategic decisions. Managers should not use tools to introduce something objective or rational and eliminate politics or emotions from decision-making. Instead, they should be beneficial for surfacing assumptions, asking tough questions, and aligning different interests within the organisation. Strategy-making is an emergent process

that cannot be streamlined. The tools serve as starting points and facilitators of a process rather than just providing answers. (Kaplan and Jarzabkowski, 2006)

Shifting to scenario-based strategy as the preferred mode of strategy making is based on three phenomena: problems with predictions, increasing complexity and systems thinking, and strategy as fit. Individuals often make limited predictions due to their tendency to think within narrow parameters. When people encounter complicated situations, they usually simplify them into "either/or" scenarios. Executives can overcome this by adopting a systems thinking approach. This approach prioritises interconnections and causal relationships over individual parts, which is crucial for creating learning organisations capable of detecting errors and self-correcting. Systems thinking is important for scenario planning. To build quality scenarios, it is necessary to understand systems thinking and the tools that make systems visible. It is common for humans to overlook underlying behaviour patterns while focusing on visible events. Scenarios provide a platform for decision-makers to explore the structural level of various forces that the organisation faces. Detecting deviations and correcting them leads to success in a strategy is a process. A lack of capacity hinders the effective execution of strategy. As real strategic options require competence and the ability to act together strategically, matching current competencies with emerging future external dynamics. (Van Der Merwe, 2008)

Whittington et al. (2016) demonstrate that strategic planners are flexible professionals. Strategic planning has undergone some changes in recent decades. Strategic planners have adjusted their approach to cope with increased environmental turbulence by decentralising organisationally and rebalancing analytically. They selectively respond to different environments, preserving some aspects of their jobs while adapting others. Analysis and forecasting remain fundamental in their careers, but economics and centralisation are less critical. Given their responsiveness to environmental challenges, strategic planners are expected to have the capacity to adapt to other types of change in the future.

Conventionally, strategy researchers assume that strategy is something organisations have. Organisations have differentiation strategies, diversification strategies and joint-venture strategies, and they have strategic planning, decision, and change processes. In this view, strategy is a property of organisations. Strategy as Practice approach is concerned with strategy as activity in organisations, typically the interaction of people, rather than strategy as the property of organisations. Strategy is something that people do. For example,

differentiation strategies involve people doing things differently and in ways difficult to imitate and strategy processes involve people making strategies. Strategy practices such as strategic planning, workshops or consultancy practices need to be understood as institutionalised phenomena that influence what organisational actors do and, in turn, how strategies develop in organisations. (Johnson et al., 2007, pp. 3-29)

Meetings and workshops have been examined as an area of the strategy as practice approach. Meetings impact an organisation's strategy by stabilising existing plans and facilitating change in the face of new ideas. Strategy workshops typically refer to special meetings held outside an organisation's regular activities. These workshops usually last for half a day to several days and are attended by top managers. Strategy workshops may serve different purposes, from initiating strategic changes to communicating and implementing a particular strategy. Various workshop designs can be effective in generating tangible outcomes. These outcomes can be classified into organisational, interpersonal, and cognitive outcomes. Organisational outcomes mean a workshop can support strategic continuity or stimulate strategic change. Workshops can directly improve relationships between executives, managers, and employees. Cognitive outcomes include understanding the organisation's strategic position and direction, the strategic issues it faces, and the broader business environment. (Seidl and Guérard, 2015)

2.2 Strategic agility and future preparedness

Strategic agility is defined as a company's ability to adapt to uncertain and changing environments continuously. It's been suggested that strategic agility consists of strategic sensitivity, resource fluidity, and leadership unity meta-capabilities. Strategic agility requires the awareness of new business models and categories of products and services. Agile companies emphasise renewal and modern ways to manage business transformation, organisational learning, knowledge management, and adaptive corporate culture. To achieve strategic agility, organisations should develop their critical capabilities to enhance the renewal and transformation of their existing business models. Human resource management and leadership skills are relevant enablers of strategic agility. In turn, strategic agility may support innovativeness. (Tarba et al. 2023, pp. 1-2)

Strategic agility is the ability to improve performance in the middle of disruption. Avoiding shocks relates to sensing external risks, positioning the organisation to avoid dangers, and moving quickly to minimise impacts. Opportunities come and disappear rapidly. Therefore, organisations need to be ready and willing to act soon in crisis, even if this means lower quality and predictability in the process. (Wade, Joshi and Teracino 2021)

Companies can cope better with global challenges by developing their employees' skills and capabilities in a volatile and unpredictable world. Therefore, managing internal resources and capabilities is strategically essential to the firm. The old methods for analysing and designing markets have become less effective in a rapidly changing world. External shocks in value chains and increasing consumer demands for sustainability challenge companies. They are forced to rethink how to be compelling for new customers and how to keep the existing ones. More entrepreneurial and agile marketing strategies may be valuable. Agility is related to local, national, and regional contexts, limiting the firms' strategic choices, and providing opportunities and capabilities. Strategic agility may help multinational enterprises (MNEs) cope with volatility, complexity, uncertainty, and ambiguity. Strategic agility may help MNEs take opportunities to present themselves in emerging and established countries. Agile MNEs may benefit more from environmental shocks and changes in their host countries, as they can adjust and relocate their activities and resources. (Tarba et al. 2023, pp. 1-2)

Strategic foresight practices are widely used in companies, however, their benefits are challenging to measure. The study of Rohrbeck and Kum (2018) demonstrates that future preparedness is linked with company performance. Powerful predictors are more likely to gain outperformers in the industry in profitability and market capitalisation growth.

Environmental sensitivity, strategic transformation and strategic distinctiveness are fundamental challenges for organisations today. The information should provide strategic value and enable decision makers to re-perceive their future external environment, reconceive organisations' strategic positioning and effectively turn market volatility into a competitive advantage. (Tighe, 2019, p. 10)

2.3 Scenario method

The business environment is volatile, with several external uncertainties. Forecasting is complex, and forecasts can get old before they are published or utilised. The scenario method produces alternative images of future development. It sheds light on crucial uncertainties and helps to understand their impact on strategic planning and decision-making. (Postma and Liebl 2005, pp. 161-165)

The roots of scenario planning are in military and war game simulations. The pioneer in scenario work was Project RAND (later an independent non-profit organisation called RAND), established in 1945 by the North American Administration. The organisation was challenged to decide which projects should be financed as complexity increased due to the development of military and defence systems technology. The scenario method was a strategic tool in the 1950s and 1960s. (Carvalho, 2021; Dean, 2019, pp. 5-6; Verity, 2003 p. 186; Chermack, Lynham, and Ruona, 2001)

Royal Dutch Shell integrated scenario analysis into its strategic planning process in the early 1970s. Scenario analysis and uncertainty as part of the strategic planning helped Shell foresee the 1973 oil shock (Carvalho, 2021; Bentham, 2013; Wilkinson and Kupers, 2013; Wack, 1985). Since then, scenario analysis has become a widely recognised business tool and one of the most used methodologies in strategic management (Carvalho, 2021; Wilkinson and Kupers, 2013; Bood and Postma, 1997).

Shell is not the only global company that scenario planning has enabled to survive sudden changes in the market. For instance, in 2001, a credit union with Enron Corp. as its corporate sponsor managed to survive Enron's unexpected bankruptcy and scandal because its management had previously taken actions to reduce its dependency on Enron. The management had considered various scenarios that could hinder the credit union's growth if it couldn't rely on Enron. Similarly, UPS's acquisition of Mail Boxes Etc. in 2001 was influenced by scenario planning. By acquiring Mail Boxes Etc., UPS obtained over 3,500 retail store locations in the U.S. to complement its network of large hubs used as mail-sorting facilities. In formulating the company's strategy, UPS senior managers considered four different scenarios, including a "Brave New World" scenario that described a deregulated, globalised marketplace that differed from the world UPS was operating in. The scenario

convinced management to invest in retail locations. (Phadnis, Caplice and Sheffi, 2016, p. 25)

Traditionally, scenarios have been used to evaluate and select strategies, utilise future-oriented data, and explore future possibilities. More recently, scenarios have been beneficial in increasing managers' awareness of environmental uncertainties, broadening their mental models, and accelerating organisational learning processes. Scenario analysis offers several different perspectives on the future. These views indicate future uncertainties and confrontations the managers may face. Personal intuition and emotions also affect the images that managers build in the future. There are several ways the future may develop, and people can only perceive a limited number of possibilities. However, changes are quickening, complexity is growing, and sociopolitical and cultural environments are unpredictable. The advantage of scenario analysis is that it combines various images of the future. Scenarios may bring hope for businesses to cope with simultaneous trends and surprises. (Postma and Liebl 2005, pp. 165-166)

Scenario planning is used widely by companies, agencies, and public organisations, and it includes varying approaches, techniques, and tools. Scenario analysis has also been a research topic of many academics. For example, Dean (2021, pp. 5-20) compared conventional scenario planning with explorative scenarios developed for the European airline industry and back-casting analysis for the London transport sector and presented a combination of conventional scenario planning methods and back-casting analysis. Oliver and Parrett (2018) investigated media firms in the U.K., in which scenario analysis is also broadly accepted as a strategic planning tool.

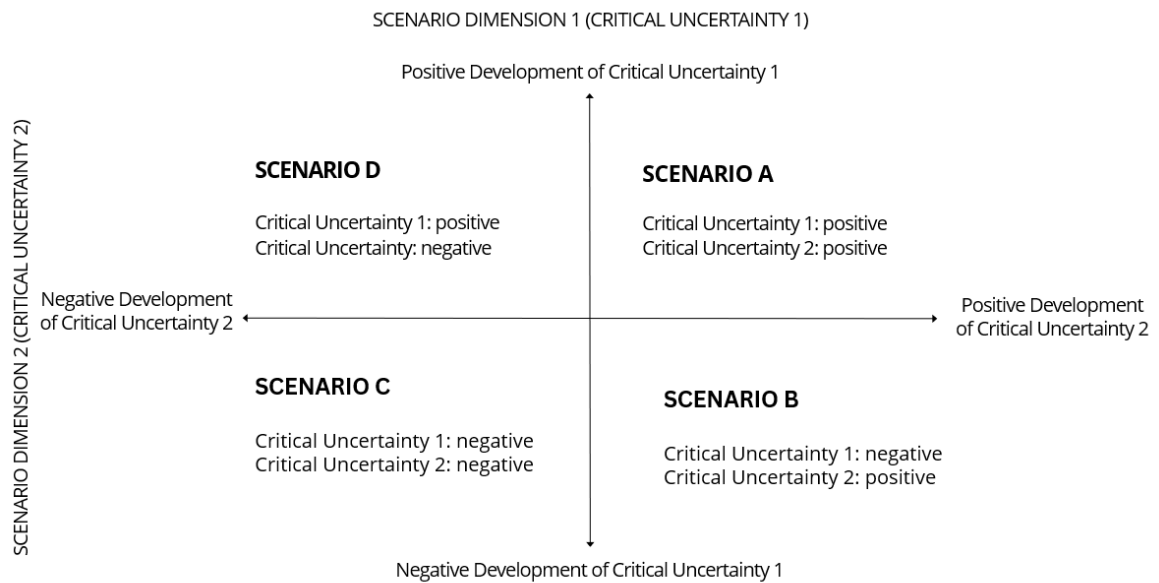
According to Tighe (2019, pp. 110-111), organisations typically face three types of challenges in which scenarios can be beneficial. These challenges are innovative, specific, and exploratory. Innovative challenges reflect organisations' need for insights. The challenges can be broad or transformational, such as defining corporate positioning or identifying future product opportunities. Specific challenges relate to a particular proposed activity, such as a decision on a particular investment. Sometimes, these innovative and specific challenges may include expectations of similar consumption and an unchanged market environment in the future. With scenarios, the validity of these presumptions can be tested. Exploratory challenges relate to a lack of information on emerging areas of interest or concern. The challenge is to gather information on the development and relevance of the

issue while it is still possible to adjust the response. The scenarios can provide a framework that may lead to strategic action or the development of more focused scenarios.

2.4 Shell's approach

Shell scenario tradition is one of the approaches that has become mainstream scenario methodology and is widely used in many organisations (Postma and Liebl 2005, pp. 161-165; Wilkinson and Kupers, 2013). Scenario analyses focus mainly on uncertain factors of which the outcomes are known, but it is not known whether they will actualise. Fundamental uncertainties include economic growth in countries and political relationships between large economies such as Europe and the US. After defining the fundamental uncertainties, the next step is clustering the driving forces. It reduces the number of relevant driving forces to more manageable constructs. Then, the two general areas of critical uncertainty will be identified, forming the basis of the scenarios. Scenario work is more helpful to organisations when managers participate in scenario planning and reflect them in their decision-making. The idea of the scenario work is not to come across the most likely future. It is also unnecessary to qualify scenarios as good or bad. Each of the scenarios may be possible in the light of given uncertainties. (Postma and Liebl 2005, pp. 161-165)

Shell's scenario approach represents conventional (explorative) scenario planning. It is based on identifying two driving forces from which the scenario storyline is conducted. The steps of the scenario process are scoping, information search, trend and uncertainty analysis, scenario building, strategy definition, and monitoring. In the scenario-building phase, the identified trends and critical uncertainties are transformed into possible scenarios that illustrate possible futures. The potential future developments of the uncertainties are placed on the x and y-axis of the matrix. (Dean, 2019, pp. 8-12) Picture 1 shows an example of this kind of scenario matrix.



Picture 1. Example of conventional scenario matrix (Dean, 2019, p. 10)

The 2×2 Matrix Method presents the same approach in the literature. The general 2x2 Matrix building method is widely known among scenario practitioners. After all, many scenario consultants and authors have reconstrued the original method. (Chermack, 2020, pp. 45-46; Wilkinson and Kupers, 2023)

Shell's scenarios have focused on the following: information that Shell's managers were concerned about, determinable and predictable environmental elements, trend breakers, meaning elements with understandable dynamics but that unpredictably affect the environment, and possible surprises with significant influence. (Schoemaker and Van Der Heijden, 1992)

Pierre Wack is recognised as one of the founders of the scenario method. Wack, with his colleagues, had a remarkable role in Shell's scenario work in the 1970s and 1980s. Wack built his work on the ideas of futurist Herman Kahn by adapting them to the business world. (Spaniol and Rowland, 2018; Chermack and Coons, 2015, p. 35; Wilkinson and Kupers, 2013).

The predeterminant elements is one of the critical concepts in Wack's scenario thinking. Predeterminant elements mean the results of events that can be predicted based on former experience. Identifying predeterminant elements does not cover the uncertainties that make scenarios useful. Scenarios are weak if they don't include the unimaginable parts. Therefore,

identifying unimaginable parts is essential, even though planners often may find identifying predetermined elements more engaging. (Chermack and Coons, 2015)

Wack (1985, p. 77) emphasises the importance of crucial uncertainties. “There are always elements of the future that are predetermined. But there are seldom enough to permit a single-line forecast encompassing residual uncertainties. Decision makers facing uncertain situations have a right to know just how uncertain they are.”, he has said. Wack found the forecasts risky because they are often based on the assumption that the future will look much like today's world, even though it is unstable.

Today, “scenarios” have various meanings. Wack underlined the difference between scenarios and sensitivity analysis. Scenarios must describe more than one environmental dimension as in real life, not only one variable cannot be moved up and down. At least one variable must be added to capture the dynamics and create a uniquely plausible future. The complex perceptual frameworks in which the future is shown in three or four different ways challenge the mental models of decision-makers. (Chermack and Coons, 2015)

Wack did not rely only on scenario planning. He described an organisational nervous system that includes global and specific scenarios, competitive analysis, developing strategic vision and option planning. These elements acting together enabled the development of insight and foresight. In a multi-phased approach, the focused scenarios are powerful, but with a tight focus, scenarios are also losing context and missing key variables. Global macro scenarios are required first before moving to more focused micro scenarios. Nevertheless, international companies' requirements typically differ from those of minor or start-up companies. Therefore, in some cases, multiphase scenario planning is not necessary. Competitive positioning is critical to scenarios and to changing mental models. Competitive positioning refers to evaluating differentiation, competitive barriers, and competitive advantage. Option planning is also an essential part of the scenario process. Moreover, scenario work should always lead to multiple options and include a strategic vision. (Chermack and Coons, 2015)

Scenario planning practices have modernised since Wack's times (Chermack and Coons, 2015; Boom and Postma, 1997, p. 634). Then, even the shortest scenario-planning project of pioneers usually took months. For Wack, the outcome of the scenario planning was the options, as without options and connection to decisions, he saw scenarios just as a set of exciting stories. Today, many consultants sell a set of scenarios. This, however, may leave

the managers with a question of what to do next. Scenarios benefit managers when combined with knowledge of the competitors, a clear vision of the company and a willingness to consider real options. Scenario building does not work perfectly as a group process. Even though scenario planning can be used in team building and creating shared mental models, the decision-makers are natural users of scenarios. The primary purpose is to give managers a broader, more informed worldview. Modern scenario planning can shorten a process to a 2-day workshop. Scenarios can be effectively developed in 2-day workshops, especially if the work is done in an off-site location. This can be enough to identify uncertainties and start planning. (Chermack and Coons, 2015)

Peter Schwarz, one of the successors of Pierre Wack in Shell's scenario team in the 1980s, is recognised as a developer of a 2x2 scenario matrix (Wilkinson and Kupers, 2023; Chermack 2021, pp. 45-46; Spaniol and Rowland, 2018, pp. 35-36). He is also one of the founders of consultancy Global Business Network (GBN), which specialises in scenario training and has provided scenario planning for the world's biggest companies (Wilkinson and Kupers, 2023; Chermack 2021, pp. 45-46; Ogilvie 2011). According to Schwarz (1996, pp. 6-39), predicting the future with certainty is impossible, and scenarios cannot be defined as predictions. Therefore, the critical issue is to deliberate people's insights. Thus, the basic steps are the same for small and large companies or individuals. In a typical process, the planners move through the scenario process several times to refine decisions, search for vital elements, try new plots, and rehearse the implications. Scenario work can also be practised. Schwartz's core idea is developing frameworks that help business executives perceive the future and enable strategic foresight. Vibrant language is relevant in those frameworks. The ability to understand the changing business environment and its uncertainties has become more relevant for strategy and performance. The purpose of scenarios is to gather and transform strategically relevant information into new perceptions. A successful scenario process can be a creative experience for managers. As the future is usually complex, it is difficult to describe with tables or graphs. Scenarios can work as powerful stories. They help to explain why things could happen in a certain way. Schwartz defines eight steps in the process of developing scenarios. The steps and key questions in each stage are listed in Table 2.

Steps to Developing Scenarios	
Step	Key questions
1. Identify Focal Issue or Decision	What will decisionmakers in your company be thinking hard in the near future? What are the decisions that have to be made that will have a long-term influence on the fortunes of the company?
2. Key Forces in the Local Environment	What are the key factors influencing the success of failure (e.g. key facts about the customers, suppliers, competitors etc.)
3. Driving Forces	What are the key driving forces in the macro environment? (Social, economic, political, environmental and technological forces – or forces that influence behind these e.g., demographics)
4. Rank by Importance and Uncertainty	What is 1) the degree of the importance of driving forces for the success of the focal issue or decision identified in step on 2) the degree of the uncertainty surrounding these factors and trends?
5. Selecting Scenario Logics	What is 1) the plot that best captures the dynamics of the situation 2) communicates the point effectively?
6. Fleshing Out the Scenarios	How would the world get from here to there? What events might be necessary to make the end point of the scenario plausible? Are there known individuals whose ascendancy in the public eye might help to characterize a given scenario?
7. Implications	How does decision look in each scenario? What vulnerabilities have revealed? Does decision look good in all or only in one or two scenarios?
8. Selecting of Leading Indicators and Signposts	What are the leading indicators?

Table 2. Steps to developing scenarios (Schwartz, 1996, pp. 241-248)

Grant, Haider and Raufuss (2023) facilitate re-perceiving by presenting a geopolitical scenario planning framework that categorises geopolitical events in three ways: black swans, grey rhinos, and silver linings. Black swans are commonly known as unpredictable events with high impact. Contrarily, grey rhinos are probable events with high impact. Grey rhinos are visible in the distance, but their power is not perceived. Silver linings mean openings and opportunities that allow companies to operate in a safe zone and potentially gain a competitive advantage. Even though silver linings can be difficult to recognise, they are possible to reach. Leaders should develop warning systems and contingency plans for geopolitical risks, including internal and external perspectives. These relate to critical economic, political, military, and regulatory developments. A strategic conversation about unexpected events, such as black swans, grey rhinos, and silver linings, should lead to a shared understanding of which scenarios impact an organisation the most. Active contingency planning should include data and networks, people, partnerships, and security. Leaders should consider their role in shaping the geopolitical environment. Board-level strategic conversations on geopolitical risk, likewise broad and creative thinking of decision-makers are critical. This requires a proper framework, professionals whom leaders trust and a leadership team with a shared understanding of the geopolitical context.

Van Der Heijden (2002, pp. 33-35) argues that scenario work participants must articulate their understanding by developing the transition stories when they try to make sense of the future. Thereby, gaps in understanding also become visible. The more group members agree with each other, i.e., the more they align their mental models, the stronger the joint action can be. Consensus will focus on the “business-as-usual” mental model. A too-strong consensus is also called group thinking, which is risky in unexpected change. To adapt to change successfully and survive, executives must be able to perceive signals outside the usual frame of thinking. The scenario approach fosters strategic dialogue, allowing diverse perceptions of the situation. Creating space for people to listen to opposing arguments and engage in a meaningful comparison of different viewpoints is crucial. According to Wack (1996, pp. 36-37), stories can effectively avoid the risk of denial. A proper scenario encourages people to suspend their disbelief. Scenarios help to see through stories that might be unthinkable.

2.5 Scenario planning as a strategy work tool

Scenario planning is a management tool that enables executives to develop strategies in uncertain business environments. Scenario analysis provides a systematic approach to managing business uncertainty. It allows firms to move away from fixed forecasts of the future and helps create a more robust competitive strategy based on a more holistic exploration of a strategic issue. (Oliver and Parrett, 2018, p. 340)

Ramirez et al. (2017) state that organisations must improve their ability to cope with uncertainty. Today, many senior executives believe that multiple views about the possible future benefits of management produce a rich understanding of the present possibilities.

The dynamic capabilities (DCs) view is a framework that aims to explain how companies adapt to turbulent environments and identify opportunities in such environments (Ramírez, Österman and Grönquist, 2013). Teece (2018) defines dynamic capabilities (DC) as the company’s ability to integrate, build, and reconfigure internal competencies to address changes in the business environment. The strength of a firm's dynamic capabilities is crucial to maintaining profitability in the long term because it determines the speed and degree of aligning the firm's resources with customer needs. DCs include sensing, seizing, and

transforming. They are needed to design and adjust a business model. Sensing refers to identifying opportunities, including technological development and possibilities. Seizing entails designing and refining a business model. Managerial competencies are often an essential element of seizing opportunities. Transforming refers to realigning structure and culture. It includes aligning existing capabilities and investing in additional ones. Strategic analysis must be tied to business model design. The study of Ramírez, Österman and Grönquist (2013) showed that scenario planning provides firms with synergic capabilities that help frame top management attention on possible future contexts.

Fergnani (2022) argues that corporate foresight techniques, such as scenario planning, improve the quality of strategic conversations. Corporate foresight is defined as a dynamic, firm-level capability that allows firms to evaluate future scenarios of the business environment. Corporate foresight can indirectly affect innovation and performance via increased learning. It is a future-oriented firm capability that can be considered an extension of the dynamic capabilities framework. Corporate foresight can favourably affect critical organisational outcomes, including learning, creativity, innovation, and performance, via a mechanism to create competitive advantage.

Organisations face a critical challenge when considering the need for change and implementing a new strategy in a highly uncertain environment. According to Randall (2006), scenario planning is an effective method for creating a vision. The scenario planning process enables executives, managers, and employees to visualise the kind of organisation they want to be a part of and the potential for growth and success. It helps clarify the long-term implications of present development efforts and helps identify the best use of resources in the future. Making better strategic decisions in a changing environment requires a culture that welcomes change and a commitment to continuous improvement. This is a vital outcome of the scenario process. Scenario planning is an effective method for practising the future. Organisations can react quickly to unexpected events by continuously anticipating future changes.

Scenario planning is widely used among business sectors globally, especially for addressing uncertainty in strategic decision-making. (Cordova-Pozo and Rouwette 2023; Oliver and Parret, 2018). Oliver and Parrett (2018) found that scenario analysis was often chosen as a strategic planning tool if it fitted culturally within a company and/or industry. Nevertheless, more and more industries share the challenge of managing uncertainty caused by digital

technology disruption. Therefore, scenario planning is a tool that strategy makers should use whether it fits culturally within the organisation. In addition to understanding the competitive environment, the strategy makers can identify and prioritise the forces creating the most uncertainty with scenario planning. Likewise, they can find strategic solutions to multiple future scenarios. Therefore, scenario analysis can help strategists plan and be mentally prepared for an uncertain future and develop a relevant and long-term corporate-level strategy.

According to Schoemaker (1995, p. 27), scenario planning aims to encompass many possibilities and stimulate decision-makers to consider changes they might otherwise overlook. It helps to organise these possibilities into narratives that are easier to understand and use than large volumes of data. The main objective of scenarios is to challenge the existing mindset. Individuals can use the scenario method to make decisions and adjust organisational function in change. Still, scenarios are typically most useful in corporate-wide strategic planning and vision building. Scenario planning can be beneficial, especially to organisations facing the following conditions:

- Managers face high uncertainty regarding their ability to predict or adjust to the current situation.
- There have been too many expensive surprises in the past.
- The company seems to lack the ability to identify and create new opportunities, and the quality of strategic thinking appears to be low.
- The industry has either undergone significant changes or is anticipating major changes in the near future.
- The company wants a common language or framework; there are substantial differences in opinions.
- The competitors are using scenario planning.

The growth of scenario-based strategy has been observed in applied practice despite its lack of solid academic roots and the occasional rejection by business schools with economic views of strategy. Scenario practitioners who are experts in organisational learning generally

agree that scenario-based strategy provides the most sophisticated and proven organisational learning process. Enhancing and developing an organisation's level of learning can be achieved through a scenario-based strategy. (Van Der Merwe, 2008, pp. 223-224)

Shell has been using scenario planning for decades to help develop its strategic thinking (Bentham, 2014, p. 88; Schoemaker and Van Der Heijden, 1992, p. 41; Wilkinson and Kupers, 2023). The focus has been on four primary areas: economics, geopolitics, socio-cultural issues, energy, and the environment. With scenario analysis, Shell has grown to understand how consumers, governments, energy producers, and regulators will likely respond to future changes. Therefore, scenario analysis has brought commercial value to Shell. (Bentham, 2014, p. 88). According to Spaniol and Rowland (2018, p. 35), Shell's approach to planning has been evaluated as an optimal model for large organisations. Shell is one of a few corporations continuously investing in applying, improving, and publishing scenarios.

Phadnis, Caplice and Sheffi (2016) investigated how scenario planning affects executives' strategic choices. It was found that using multiple scenarios won't necessarily help reduce decision-makers overconfidence in their judgment. If executives are overconfident about their judgment, they won't necessarily become less confident after evaluating one or many scenarios. Second, scenarios can influence judgment and their content matters. Still, to influence executive judgment, scenarios must be relevant to the strategic decision. Third, executives often develop strategies optimised for a specific environment. Flexible strategies are essential for organisations that face rapidly changing environments with new opportunities and threats. Multiple scenarios can help executives evaluate strategic decisions and choose adaptable approaches to cope with changing circumstances.

In a study by Levakos (2020) on scenario planning, interviews were conducted with world-leading experts from Royal Dutch Shell and Global Business Network (GBN). The findings suggest that scenario planning experts follow a specific process that involves understanding the clients of the scenario planning project, identifying the scenario focus, examining the external environment, developing scenario sets, challenging the assumptions and beliefs of the clients, and encouraging conversation and dialogue. Experts in scenario planning play a crucial role in shaping the content of the scenarios throughout the process. They must possess a deep understanding of the subject matter that the scenario project is centred around, as this will positively impact the quality of the scenarios produced.

Chermack (2021, pp. 69-175) emphasises that scenarios should always be first connected to their original purposes in scenario work. Scenarios should have a reason to be made, and that purpose must be articulated clearly at the start of the project. There are several approaches to using scenarios. They can be used to enhance learning and support decision-making. Also, scenarios can generate strategies. They help to consider what actions could be taken if each scenario were to come true. It is possible to “wind-tunnelling” strategies with scenarios. Wind tunnelling means evaluating how the strategies are sustained in each scenario and across the scenarios. Decisions and options can also be tested with scenarios to understand their potential risks and benefits. Moreover, scenarios can be used to estimate and model financial benefits. Workshops are a proper format for scenario work. Developing scenario signals and critical uncertainty dashboards are beneficial but not so commonly used. Signals are the events required for each scenario to become reality.

The use of scenarios is based on the idea that a better understanding of the future enables better decisions. The scenario method is an unbeatable tool for learning and foreseeing the future conditions on strategic significance. Several factors continuously affect the business environment and interact with one another by producing unpredictable outcomes. Multiple scenarios acknowledge that the future is not linear and trends do not develop in isolation. Recognition of systemic interaction differs from the scenario method from the many other strategy tools. A more complete picture of the future gives managers more confidence in their decision-making. As scenarios facilitate perceptual and conceptual changes necessary for strategic transformation in a volatile environment, they enable managers to perceive different future operational contexts and formulate strategic reasoning. (Tighe, 2019, pp. 36-37)

2.6 Limitations of scenario approach

The word scenario is sometimes confused with the term strategy. Scenarios reflect hopes and fears regarding the future and should not be confused with the choices between strategic options. There is a risk of an approach without respect for scientific grounding. To be credible and beneficial, the scenario approach must meet five prerequisites: relevance, importance, coherence, plausibility, and transparency. This means that practitioners should

be able to ask the right questions, formulate the correct hypotheses clearly, and confirm the coherence and probability of possible combinations. (Godet, 2000, pp. 3-18)

According to Van Der Merwe (2008), the tree phenomena, first, problems with predictions; second, increasing complexity and need for systems thinking; and third, strategy as a continuous learning process have led to scenario-based strategy methods. There has also been a growing demand for scenario planning practitioners. Scenarios are most beneficial if they are used for learning in organisations. Organisations may benefit from better scenario planning skills as a scenario-based strategy can improve the quality of decision-making and leadership. Some common mistakes should be avoided in scenario planning. Novices should be aware of putting all good news in one scenario and all bad news in another, the best case, the worst case, and status quo scenarios developing unrealistic scenarios, failing in the probability trap, and stopping while the scenarios are ready.

Burt et al. (2017, pp. 16–25) examine the connection between emotional and psychological factors and individuals' and groups' ability to engage in scenario planning. To benefit from scenario planning, managers must be open to novelty, newness, and otherness, which are the opposite of the familiar. Efficient scenario planning requires managers to acknowledge the experience of ignorance and uncertainty. However, recognising and accepting such a situation can be uncomfortable for many senior managers. They are often time-constrained and naturally rush into actions based on simplifying the complex situation without knowing the unintended consequences. Therefore, overcoming this tendency and developing the capacity for patience and openness is essential.

According to a study by Schühly (2022, pp. 337-354), cultural values significantly impact strategic management, particularly scenario planning. The attitudes of decision-makers towards strategic management and its processes are shaped by their cultural background. Individuals with a low uncertainty avoidance orientation and those with an individualistic outlook tend to prefer scenario planning. How managers from different cultural backgrounds evaluate situations leads to various interpretations and utilisation of strategic management tools and their outcomes. Therefore, organisations need to have a two-dimensional understanding of these tools, including knowledge about their applicability and the cultural preferences of the decision-makers involved.

Scenario planning has proven to be an effective tool for organisations of many kinds to make decisions under great uncertainty. However, sometimes scenario analysis may not be as effective, which can disappoint executives. The reasons for this may be due to insufficient experience. Companies not using scenario planning frequently may lack the necessary organisational memory to execute it successfully. Without scenario work experience, practitioners may focus too much on details and overlook essential uncertainties. Additionally, cognitive biases such as overconfidence or neglecting low-probability events may hinder the effectiveness of scenario work. This can be a problem when managers assume that subordinates can handle the job of scenario analysis without proper guidance. (Erdmann, Sichel and Yeung, 2015)

To effectively plan for potential scenarios, it is vital to overcome certain obstacles. First, availability bias should be countered by monitoring emerging trends and possible disruptions instead of relying on what the planning team already knows. Second, probability neglect must be avoided by not giving too much attention to unlikely events. Third, stability bias should also be avoided by not assuming the future will look like the past. Fourth, overconfidence and excessive optimism pose a risk, and therefore, it is essential to be realistic when estimating uncertainty and the chances of failure. Finally, accessible, and open debate can help avoid social biases, and managers should create an environment that encourages new thinking habits and dissent to support the organisation in making better decisions under uncertainty. (Erdmann, Sichel and Yeung 2015)

According to Chermack (2021, pp. 4-50), scenarios must relate to the organisation's strategy work. Scenarios do not have an impact if they are not linked with the decision-making and results. Scenario planning is more complex than traditional strategic planning. Participants are typically encouraged to think in new ways. Thereby, scenario planning may be more challenging than a traditional strategic planning process and requires readiness in two ways. First, organisational resources, such as time, financial support, and scheduling, are needed. Second, participants' psychological readiness is essential. Psychological readiness means, e.g., openness to debate and willingness to consider alternative views and question their mental models. Specifically, in organisations using the 2x2 scenario method, participants must be carefully chosen, and leaders must be present instead of delegating the work to their subordinates.

Scenario planning has been criticised for suffering methodological chaos (Cordova-Pozo and Rouwette, 2023; Spaniol and Rowland, 2018). It is claimed that the dismal state of theory encourages scholars to adopt a theory not necessarily tied to a common core, which does not contribute to a shared theoretical perspective in future studies. Typologies arise from chaos, contributing to the chaos they aim to resolve. (Spaniol and Rowland, 2018)

In addition to methodological chaos, Cordova-Pozo and Rouwette (2023) also identify two other challenges that limit the spread and usefulness of scenario planning: conceptual confusion and the lack of evidence on its effectiveness. There is no consensus in the literature on how to classify scenarios. The scenario method has been continuously adapted over the years and now covers various techniques with unclear processes. New scenarios are created for specific cases, but the development process is rarely sufficiently documented, and it is based on tacit knowledge by consultants. Scenarios have become popular with the aim of increasing preparedness for the future and assessing the resilience of potential strategies. However, claims on the effect of these scenarios are always not empirically or theoretically grounded.

According to Verity (2003), a divergent set of methodologies is one of the reasons why scenarios are not adopted more widely. It is difficult for managers to know what the best approach for specific business issues is. Scenario techniques are very flexible. They can be applied to almost any business issue that involves a certain level of uncertainty. Although best known for their use in corporate, high-level, global and long-term strategies, these techniques can also be applied to solve specific issues related to competitive strategy, marketing and organisational capabilities. Paradoxically, flexibility and applicability limit the acceptance of scenarios in organisational use. The technique is difficult to define and describe. There are different views on what scenarios are for, how they should be built and when they should be used. Moreover, cost, elements of confidence and uncertainty and organisational culture influence on acceptance of the scenario approach. Many executives believe that the scenario process is a significant investment which requires large amounts of resources. Costs may be the reason why managers resist using scenarios. Managers sometimes tend to be overconfident in their ability to predict and control. For human nature accepting uncertainty is difficult. Therefore, managers may prefer approaches that include adding probabilities. The organisational culture may also support or limit the effectiveness of the scenario technique. Typically, organisations that respect diversity of views among

managers find it easier to perform scenario planning and are more likely to achieve high-quality outcomes.

3 Overview of Global Scenarios Project

Nordic West Office (NWO) is a Finnish consultancy and think tank specialising in macro-level geopolitical and economic analysis. Scenario analysis aims to help companies recognise the global forces affecting them and prepare for different scenarios. The NWO's macro-level scenario analysis is derived from Shell's scenario methodology.

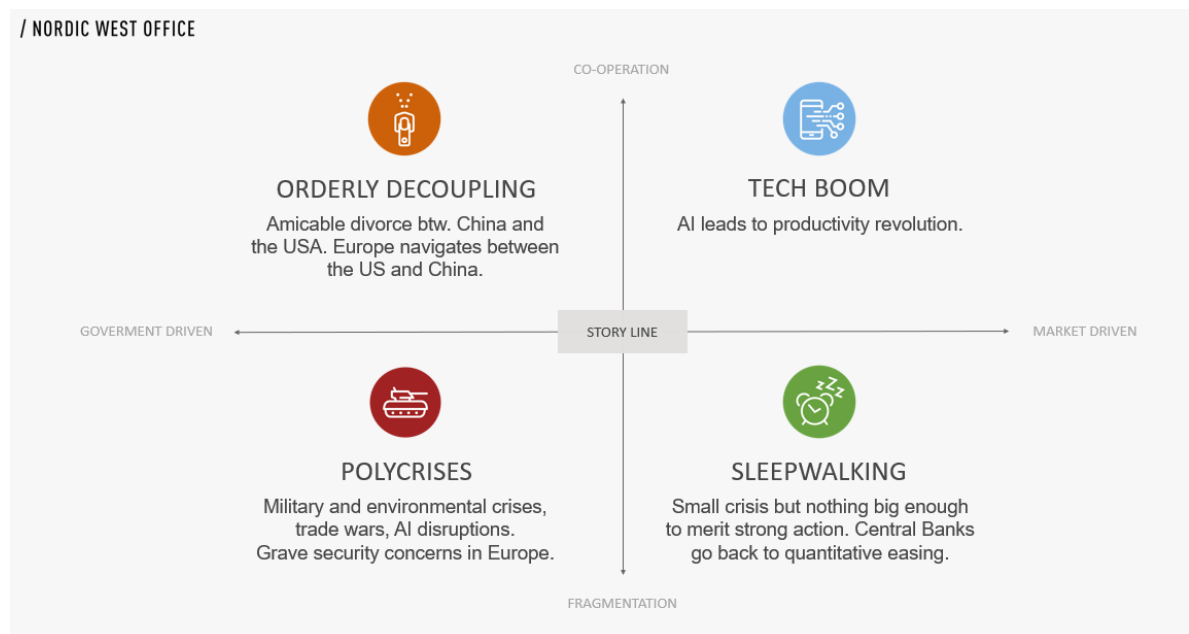
The NWO conducted a "Global Scenarios" project in 2023. In the project, the business leaders from nine Finnish companies were brought together to develop global scenarios: the plausible futures for the next eight years. The working group travelled to four cities, Singapore, Berlin, Oxford, and Washington D.C., to meet with over 70 experts and discuss different scenarios and visions for the next 1-7 years. The experts represented academia, think tanks, businesses, and governments worldwide. Subjects included geopolitics, macroeconomics, energy transition, technology, and supply chains. The recognised uncertainties in the analysis were global cooperation versus fragmentation and government-driven economies versus the market-driven world. NWO's role was to facilitate the scenario-building process, including organising workshops abroad with leading experts, conducting the analysis, and finalising the scenarios. As a result, Global Scenarios presented four possible futures for 2030 with distinct driving logic and storylines. These scenarios are called Orderly Decoupling, Polycrises, Tech Boom, and Sleepwalking.

In an Orderly Decoupling scenario, the US-China power competition sets the pace for geopolitics globally. There are two blocks in the world: the US with its circle of friends and China with its friends. Ukrainian counter-offensives do not lead to a breakthrough. Active battles stop to an agreement, but the conclusion is hardly satisfying.

Word crises capture the mood of the Polycrises scenario. NATO has become involved in Russia's war in Ukraine, which has turned out lengthy and costly. China has invaded Taiwan. War exists also in the form of trade wars. Protectionism is the prevalent trend. The EU remains, but there are internal blocs within it. Regulation of artificial intelligence (AI) has failed. Moreover, climate change is continuing towards alarming degrees.

Techboom is a scenario of a new industrial revolution. The development of AI and other technological breakthroughs have led to a productivity leap. China is back on track to become the leading global power. Russia has lost a war in Ukraine and is going through a regime change. As a result, Europe trades with the US, China and India, and again with Russia.

In a Sleepwalking scenario, the world has become fragmented. The states remain key actors, but the world is increasingly multipolar. Growth is de-centralised: rich countries enjoy growth, whilst poor countries are left behind. However, there are some success stories in the Global South. Society is fragmented into networks of individuals, and non-governmental organisations gain space. Picture 2 illustrates these global scenarios for 2023.



Picture 2. Global scenarios for 2023 by NWO (Resource: Nordic West Office)

3.1 Project workshops

In August 2022, the NWO hosted a kick-off event to present the Global Scenarios project to potential customers. The event featured guest speakers who gave the audience insights on geopolitics and business. Professor Rebecca Grant from the Irish Research Institute and Dr

Rana Mitter from Oxford University were present virtually and shared their views on the US and China. In addition, three Finnish panelists, Pia Käll, CEO of financing company CapMan; Esko Aho, former Prime Minister of Finland; and Risto Murto, CEO of insurance company Varma, discussed "Global Change and Finland". The event aimed to inform potential customers about the Global Scenarios project and its benefits.

Four fact-finding missions were conducted in Singapore, Oxford, Berlin, and Washington D.C. In addition, individualised workshops were offered to participating companies. In January 2023, the first project workshop was held in Singapore, where participants had the opportunity to meet with the Ambassador of Finland to Singapore, as well as representatives from various organisations such as McKinsey Singapore, The International Institute for Strategic Studies (IISS), DBS Bank Singapore, Nanyang Technological University (NTU), APAC Advisors company, Asian Trade Center and Perx Technologies company. The group also visited the leadership training hub Catapult Singapore. The group discussed topics such as Asian geopolitics and security, ESG and trade trends in Asia, the status of the Chinese economy, perspectives on doing business in Asia and social and political trends in Asia. The findings from the trip indicated that the Chinese economy is expected to have a positive outlook in 2023. However, it was also noted that uncertainties exist regarding the growth of domestic demand and the tensions between China and the US. The group also discussed the competition between China and the US regarding technology and the need for Western and Chinese companies to identify alternative supply chains and production sites. In addition, the group explored China's efforts to strengthen its relations with Europe and the US.

In February 2023, the second workshop took place in Berlin. During the workshop, the group had the opportunity to meet with several distinguished figures, including the Finnish Ambassador to Germany, journalist Melinda Crane from Deutsche Welle, and experts from McKinsey and Company, The International Institute for Strategic Studies (IISS) Europe, and Stiftung Wissenschaft und Politik. Additionally, the group visited Siemens. The discussion covered various topics, including European and German competitiveness, geopolitics and security in Europe, and German foreign and security policy. The group gained valuable insights into foreign policy, the economy, and industry from Berlin. For instance, they learned that around half of Germans supported a peace treaty with Russia at that time. Overall, the economic situation in Germany was perceived as gloomy. However, the group

discovered that German industrial companies tend to invest outside of Germany, while most investments made in Germany are directed towards traditional industries.

In March 2023, the group's third destination was Oxford, where they discussed various topics such as the future of Europe, science, technology, innovation, and green and energy transitions. They met experts from the Centre for European Studies, Oxford Internet Institute, Harwell Science and Innovation Campus, and QuantrolOx at Oxford University. Experts in UK politics shared their views on "The Great Return - Will the UK rejoin the EU?" which sparked further discussions. The group also met representatives of McKinsey and Company, the UK Department of Energy and Climate Change, and Oxford Energy Institute. The key takeaways from the discussions were focused on Europe and the Global South, green and energy transitions, and technology. The experts predicted that the West would resume trade relations with Russia within the next seven years. Conversely, China continues to play a significant role in Africa, but its investments are mainly focused on infrastructure and exports to China. The green transition has accelerated investments in the US and Europe while slowing them down in other parts of the world. Moreover, the group saw ChatGPT as a symbol of the new era of technological advancement.

In April 2023, the participants of the Global Scenarios Project convened in Washington D.C., to attend a workshop. The think tanks, including New America, Brookings Institution, Heritage Foundation, BloombergNEF research organisation, and McKinsey, were invited to share their insights with the group. Additionally, the Financial Times journalists were present to offer their perspectives. During the discussion, the experts discussed several important topics, such as the U.S. presidential elections, U.S.-China relations, Ukraine, the future of NATO, the US and world economy, the green energy transition, the Inflation Reduction Act (IRA), and the outlook on Mexico and Brazil. Both democratic and republican perspectives were taken into consideration. The group mainly focused on domestic and foreign policy, economy, and green transition. Some key takeaways from the discussion were that Trump's victory in the 2024 US presidential elections was not impossible, the long-term prospects of the US economy were viewed positively, and the Inflation Reduction Act (IRA) and the Bipartisan Infrastructure Law (BIL) represented a \$2 trillion commitment to green transition.

3.2 Project's objectives and implications

Dr Risto E J Penttilä, CEO of Nordic West Office, and Project Manager Juulia Olkkonen facilitated the Global Scenarios Project. Penttilä explains the objectives of the project from various perspectives. Scenarios help companies to structure the world. “In this situation, when there are significant geopolitical, economic and technological changes, we thought that structuring the world through scenarios could be helpful for the companies.”, Penttilä says. “Perhaps even the most important reason for a company to participate in a project such as Global Scenarios is once the scenarios have been created, they help to think about the future systematically.” Penttilä names this the most crucial goal. When the future is unknown, it is impossible to approach it linearly and expect everything to continue as before. That is why the scenario method provides an excellent opportunity to structure future options and think systematically about what different scenarios mean. According to Penttilä, the other reason is a scenario work journey. This means an opportunity to learn from other participants and experts. There is always a little tension between these two sides, too. “The participants may consider the project interesting, enriching, and enjoyable for themselves or their teams. But if that is all, they could have read a good book or watched a movie instead. You can learn from them, too.”, Penttilä explains. “That is why we constantly highlight that scenario work project should not be just an enriching learning experience for those who participate, but it must become something the company can utilise to guide its operations.” For that reason, both aspects are essential: the journey and usability of the scenarios. The aim is for scenarios to become a tool for the company to direct its operations.

NWO's Global Scenarios can be used in several ways. Penttilä gives first an example of how the chief executive officer (CEO) or chief financial officer (CFO) can use them to prepare a budget, action plan, or other proposals for the company's board of directors. It is relevant to consider the world for which these policies are made. If just the goals and the actions for reaching them are presented without a description of the world and assumptions related to it, i.e. the development of the economy, the presentation is on shaky ground. “Due to scenario work, the CEO can, when presenting to the board, say that we have these three or four scenarios, and we have considered that in the next 18 months, the world or our market is going in this direction.”, Penttilä describes.

Second, scenarios provide a shared approach for structuring the world for organisation members, Penttilä states. The entire organisation, the management team, or any other team can consider future-related issues and discuss them by keeping everyone on the same map. The members of an organisation can go through future scenarios together. Thus, the scenarios provide a common vocabulary that can be used for discussion. Thereby, scenarios offer a common situational picture. When looking at the scenarios, the managers can evaluate which scenario they believe in and where they start from. Similarly, they can form a common future picture and which way they will go.

“In the scenario work, we also create memories of the future.”, says Penttilä. Those memories are created best by working on scenarios. “If we end up in a new situation resembling some scenarios, scenario work participants remember how that scenario was created. In each scenario, we always think of their threats and opportunities; then, in a new situation, we can recognise them. Therefore, we do not have the panic-like rush to think about what the latest situation means; we have already thought it through.” Also, action points, meaning what must be done in each scenario, have been considered, and there is a clear plan for where to start. This way, memories of the future serve in the new situation.

Penttilä remarks that using even simplified scenarios in decision-making and discussion is better than not using them at all. For example, with investment decisions or a marketing campaign, it is valuable to place an investment or a marketing campaign in the scenario and evaluate how it could work and how things would develop in a specific scenario. This enables a more systematic discussion of what can happen. Even this kind of minimal way of using scenarios is helpful.

To conclude Penttilä’s view, organisations can benefit from scenario work in many ways. First, scenarios provide a structured worldview for the CEO or the management team and thereby can improve the quality of preparation work and support discussions with the board. Second, they provide a common vocabulary and situational picture, enabling more effective communication between managers and the organisation. Third, the scenario work creates memories of the future that improve the future preparedness of the organisation.

Penttilä mentions three types of difficulties that organisations may face when using scenarios. First, the challenges are often practical, such as lack of time or interest. Second, support from the top management is critical because one objective of the scenario work is to

create common ground for discussion for the entire organisation. If top management is not committed to scenario work, it is difficult. However, some smaller scenario projects may still be valuable, even without top management's commitment. Analysing some specified market areas is one example of a smaller project in which scenarios can be used. However, the commitment of the management is still decisive in more significant projects like the Global Scenarios project. Third, scenarios are just a tool to discuss different phenomena and the future, and they should not be viewed too slavishly. "We do not aim to evaluate how people and companies act but rather evaluate what seems like a plausible development", Penttilä says.

Moreover, according to Penttilä, it is always tricky if something unexpected happens, which is not in the scenario. This is a perpetual scenario working problem. Scenario analysis is a simplified approach. All possible options cannot be set in the scenario matrix. Something may happen that changes the entire frame of reference. "We have often seen that some development is expected to happen quickly in some scenarios and then notice that the development went on the opposite side. These events have been called black swans and silver linings.", says Penttilä. In that case, the new parameter should be analysed separately. "Therefore, we can make separate shock analyses if the company wants to prepare for a worst-case scenario". Penttilä says that one unexpected event also occurred during the Global Scenarios Project. "When we made China and Asia scenarios in Singapore, we thought for a long time that the only way to get into the upper right corner of the matrix is for the United States to change China's policy. Then, in the middle of the project, the Chat GPT breakthrough came, and it was noticed that this was the exact driver. The acceleration of AI development can suddenly push all regulatory development beyond the reference frameworks and outside of it to create productivity growth, causing the big powers to be more interested in growth."

Penttilä recognises a connection between future preparedness and scenario framework. Typically, companies prepare by following the development of their field. Some companies also follow weak signals. Global scenarios provide a framework in which companies can place the weak signals and possible sudden changes in the market. Scenario analysis provides a framework that considers factors outside the company's business sector.

According to Penttilä, meeting different institutions, think tanks, and people in the context of scenario work is essential. A successful trip is such that there is one session where one

expert is convincingly listened to, or we go to the next one, and another expert who has the exact opposite opinion speaks convincingly about the same issue. According to a certain logic, thinking in a certain way is logical. “This is what it is all about, revealing chains of thoughts. In Washington, we listened to the views of the democratic think tank, republican think tank and McKinsey's data-based approach. That was a good combination.”, Penttilä says.

According to Penttilä, scenario workshops and trips should not be boring. “A journey can be factually worthwhile, but if speakers are not inspiring, meeting rooms are dull, and participants are unwilling to contribute, the question arises: What did I come here for?”, Penttilä describes. The scenario work trips and events must be intellectually challenging and enjoyable. Otherwise, the participants may not find a proper reason to leave their office instead of a virtual session. The partners have a critical role, too. The German word “gesamtkunstwerk” means “total artwork”, an ideal combination of elements like image, music, and drama. “The scenario trip must be this kind of “gesamtkunstwerk”, providing impressive experiences.”.

4 Methodology

4.1 Research question

Workable research topics are answerable, interconnected, and substantively relevant. Answerability refers to the ability to identify the required data and capture it to answer the questions set. Interconnectedness means that the questions are related to each other meaningfully rather than being isolated. Questions are considered substantively relevant when they are exciting and worth research efforts. (Silverman, 2022, p. 66)

This study was conducted as a case study to explore how NWO's Global Scenario project implements Shell's scenario tradition in today's business sector. The study focuses on Finnish business executives' views on strategy work in the context of scenario planning, which provided an exciting setting for exploration. Access to project workshops and materials and familiarity with most interviewees were critical factors in choosing the research topic. The

author's participation in workshop trips to Berlin and Washington D.C. was essential to planning and forming the research question.

In this study, the research question is twofold:

1. Did NWO's Global Scenarios project participants use scenario analysis insights in their strategy work?
2. How did participating companies benefit from the project (if scenario analysis was used in strategy work)?

4.2 Research method

A case study is a research method that involves more than choosing a method for data collection or analysis. It examines a phenomenon in its natural context using various data sources to confront theory with the empirical world. Qualitative positivism utilises qualitative methodologies while maintaining positivistic assumptions about social reality and knowledge production about this reality. (Piekkari and Welch, 2017, pp. 345-346)

Qualitative case studies are widely accepted as valid and valuable academic research methods. However, while they have often been viewed as soft, accessible, and non-rigorous research methods, they are complicated to execute well in practice. (Baškarada, 2014, p. 19)

There are various approaches to qualitative research. While quantitative research seeks to correlate variables and usually to answer the 'why' question, qualitative research typically answers the 'what' and 'how' questions. (Silverman, 2022, p. 25)

The strengths of the qualitative case study compared to statistical methods are depth, high conceptual validity, understanding of context and process, understanding what causes a phenomenon, linking causes and outcomes and fostering new hypotheses and research questions. Qualitative case studies may also have some weaknesses, though. Selection bias can cause over or underestimation of relationships, and statistical significance may be unclear, weakening understanding of phenomena in a given population. (Flyvbjerg, 2011, pp. 314-315)

Awareness of ethical principles in the qualitative research process is essential, especially for two reasons. First, qualitative researchers often want to know the people's perceptions, beliefs, and feelings. Second, qualitative methods are often used to study sensitive issues in which interviewees must trust the researcher. (Silverman, 2022, pp. 104-139)

The most prominent ethical principles in qualitative research are:

- Voluntary participation and right to withdraw
- Protection of research participants
- Assessment of potential benefits and risks to participants
- Respecting the privacy of participants and avoiding deceiving them
- Obtaining informed consent
- Avoiding harm.

(Silverman, 2022, pp. 104-139; Christians, 2011, pp. 65-67; Eriksson and Kovalainen, 2008, pp. 63-76;)

Business-related case study research can present complex business issues in an accessible, lively, personal, and sensible format. However, case study research has also been criticised for its 'real-life' approach and inadequate scientific character. Practical case study results usually show how to perform a successful project or avoid some problems, at least in a specific business context or one organisation. An intensive case study aims to understand how a specific case works. It explores and tries to learn the case from an internal perspective. The objective is also to develop understanding from the viewpoint of the people involved in the case. Intensive case study research emphasises interpretation and knowledge of the case and explains cultural meanings and sense-making processes in specific contexts. (Eriksson and Kovalainen, 2008)

Johnson et al. (2007, pp. 52-57) argue that in-depth and largely qualitative data are a central requirement for developing the Strategy as Practice perspective. Qualitative approaches are often recommended when relatively little is known about an area of study or when a fresh perspective is needed. Interviews are an essential source for capturing individuals' emotions and feelings about events. However, they are not so good at capturing the micro-behaviours

and interactions related to strategy practice. Authentic observations are a seldom-used data source but are crucial for advancing the understanding of strategizing.

Qualitative data that capture strategy practices in detail are essential to better understanding the ‘doing’ of strategy. Researching strategy practice engages strategy practitioners in a study. They are the primary research subjects. However, practitioners are not only both subjects and experts but also potentially beneficiaries research. Strategy as Practice perspective is abundant for creative researchers. (Johnson et al., 2007, pp. 52-81)

4.3 Data collection

Qualitative interviews consist of a talk organised into questions and answers. Usually, interviewers first ask questions, and interviewees second provide answers. However, qualitative interviews may be like everyday conversations. (Eriksson and Kovalainen, 2008)

The aim of the qualitative interview is to collect data to understand social organisation and processes. This method allows one to explore how respondents assign meaning to experiences, events, and themes. In-person interviews are good because they provide a natural conversational setting, a strong foundation for building joint understanding, and an opportunity to observe visual and emotional cues. Virtual tools such as Skype or Teams may still be beneficial. They can even sometimes be a better option for producing high-quality interviews than in-person interviews. (Johnson, Scheitle and Ecklund, 2021)

Qualitative data is descriptive and comprehensive. It does not rely on numerical values but on language or visuals to convey meaning. Due to its nature, this type of data is often large and complex. It needs to be organised into categories to make sense of it, which can then be analysed using conceptual frameworks. (Saunders, Lewis and Thornhill, 2016, pp. 568-569)

Information is usually gathered from organisations and individuals in qualitative business research projects. Convenience sampling is often used instead of systematic sampling techniques of quantitative research. The suitability and accessibility of research participants are significant factors to consider. (Eriksson and Kovalainen, 2008 p. 59)

The data for this qualitative case study was collected by interviewing seven Finnish business executives after the project. All the interviewees represented participant companies and

joined one or more project workshops abroad. Total number of participating companies was 10. However, two of them did not participate in the trips. One participant was not reached for an interview. The interviews were conducted virtually in Microsoft Teams four to five months after the last project workshop, from November to December 2023. Microsoft Teams was used instead of face-to-face interviews to accommodate the busy schedules of business executives. Interviews were recorded, transcribed, translated, and analysed. Technical problems did not occur during the interviews, which lasted approximately 30 minutes each.

The branches in which the interviewed organisations are operating were:

- industrial measurement solutions
- aviation
- lobbying
- pulp, paper and energy process technologies
- culture and media
- technological solutions for the energy and marine industry
- abrasives

The size of organisations varied from small and medium-sized to big global companies. The group included five listed companies, one family-owned company and two associations.

The interviewees worked in the roles or titles of:

- Chief Sustainability and Strategy Officer
- Vice President, Government and Institutional Relations
- Director, Chief Economist
- Strategy Development Manager
- CEO
- Executive Vice President, Corporate Relations and Legal Affairs

- CEO

The interviews of the Global Scenario project participants included the following five questions:

- Why did you join the global scenario analysis project?
- How have you utilised or planned to utilise Global Scenarios' insights in your business?
- Have there been any difficulties in using Global Scenarios?
- How does global scenario analysis affect your company's future preparedness?
- Would you like to point out some specific insight or part of the process that you found valuable?

To protect the confidentiality of the companies' strategies and partnerships, the names of the interviewees or their companies are not published in the study. Furthermore, none of the responses can be linked to the profiles of the interviewees. The interview recordings and notes were not shared or used for other purposes.

4.4 Data analysis

Content analysis is widely used in communication, journalism, sociology, psychology, and business. Content analysis can be used with either qualitative or quantitative data. Moreover, it can be used inductively or deductively, depending on the purpose of the study. A deductive approach is helpful if the aim is to test an earlier theory in a different situation or to compare categories at various periods. A deductive approach moves from the general to the specific. (Elo and Kyngäs, 2007)

Content analysis includes systematic requirements for data analysis. A key characteristic of all content analysis is that the many words of the text are classified into much smaller content categories. Content analysis processes include three main phases: preparation, organising and reporting. When deductive content analysis is chosen, the next step is to develop a categorisation matrix and code the data according to the categories. A matrix is generally based on earlier work such as theories, models, mind maps and literature reviews. After a

categorisation matrix has been developed, all the data are reviewed for content and coded for correspondence with or exemplification of the identified categories. The results are described as contents of the categories, i.e. the meanings of the categories. The content of the categories is described through subcategories. Content analysis is a flexible but challenging method for a researcher, as there are no simple guidelines for data analysis. There are challenges that may be related to dealing with a large quantity of data. The critical point of the study may be lost if qualitative data is compressed too much. If data is summarised without including supporting quotations, the richness of the original data may disappear. (Elo and Kyngäs, 2007)

Deductive explanation building involves testing a theoretical proposition or prediction (Saunders, Lewis and Thornhill, 2016, p. 592). The first expectation in the analysis of this study was related to scenario method theory. It was expected that interview answers to the data would have similarities with the earlier insights of the scenario approach as a strategy work tool. This may strengthen the earlier knowledge of the scenario approach and its implications for business. The second expectation was related to NWO's view. It was expected that the views of the Global Scenarios Project participants have similarities with the views of Risto E J Penttilä in terms of the scenario work's strengths and weaknesses, likewise in terms of possibilities utilising scenarios in strategy work. With the final question, the interviewees were encouraged to bring up also any other insights regarding the Global Scenarios project and trips. The expectation was that by this question, new insights and possible contradictions with the NWO's view would be better revealed. The participants' answers were categorised in the matrix. The matrix specified in Table 3 describes the themes that were raised in the answers.

Reasons for joining the Global Scenarios project	Changes in the external environment	Timing	Internal factors	Learning (journey itself)	Better ability to systematically think about the future	Usability with the member companies
Utilisation of scenarios in strategy work	Common situational picture or vocabulary	Memories of the future	Company-specific modelling / financial figures	Internal strategy update	Challenging or enhancing internal discussion	(CEO's interaction with board)
Difficulties in using scenarios	Generic level of scenarios	Lack of time/schedules	(Lack of support from upper management)	(Unexpected Events)		

How global scenario analysis effect on the future preparedness?	Scenarios improve future preparedness	The future will show.				
Other insights or parts of the process pointed out	Meetings in Singapore, Oxford, Berlin and Washington D.C.	Discussions with different institutions, think tanks, and experts.	Contractorary views – revealing chains of thoughts	A critical role of partners	Wrap-up of scenarios	Lack of information on how to utilise scenarios

Table 3: Categorisation matrix

5 Results

5.1 Reasons for participation

The first interview question aimed to expose the reasons behind the participation in Global Scenarios project and the participants' expectations for the scenario work. In the interviews, most participants raised external geopolitical uncertainties as a trigger for joining the project. One participant said: “There are so many geopolitical uncertainties in the operational environment. Now, if ever, is the time to take them into account. Of course, changes in the operating environment and geopolitics must always be considered in strategy work in some way. Still, especially in this uncertain time, when we have had the COVID-19 pandemic and the outbreak of the war between Russia and Ukraine, the recent events in Israel, increased tensions between China and the United States, and exceptional inflation. So many things in the operating environment affect companies' business. Like many other globally operating Finnish export companies, we must consider such global development in our strategy work.”.

Five of seven participants mentioned that their decision to participate in the Global Scenarios project was linked to their objective to systematically think or increase their ability to think about the future. One participant described their situation as follows: “Our organisation is small and multi-dimensional. Someone might think that a project like this is for large global companies. But I believe that quite a few businesses who operate locally would benefit from including such a dimension in their thinking.”.

Four of seven participants mentioned that the possibility of the learning experience or expectation of a valuable scenario work journey affected their decision to join. Also, internal motives, such as the company's internal strategy process or scenarios as a familiar tool, were brought up. One participant told: "We have been involved in quite a few scenario projects over the years. As a global actor, we are affected by what happens in the world - economy, politics, or technological development. When the uncertainty increases, scenarios give a basis for the strategy work and help us to understand what is happening and how we should act."

Likewise, exemplary timing encouraged some participants to join the project. One participant stated: "The Global Scenarios project came at such a good time for us. The world situation was already in turmoil when the project started. We had just started to get over the COVID-19 pandemic, but then the crisis in Ukraine began. We wanted to understand better where the world was going or what options to consider." One participant also mentioned the possibility of using scenarios with the organisation's member companies and promoting the members' interests as a prominent reason.

5.2 Utilisation of the insights of the Global Scenarios in business

The second question aimed to explore how the Global Scenario project participants had utilised or have planned to utilise scenario work insights in their business.

All the interviewees indicated that scenario work provided a common situational picture or vocabulary that has been used in their organisation. One executive expressed that scenarios have been utilised in tactical and strategic decision-making and are beneficial in the changed situation. This may refer to memories of the future. Some of the participants mentioned discussions at the executive management level. However, none of the participants specified preparation work for the board meetings or conversations with the board. One participant described utilisation as follows: "At the company level, the scenarios have affected our way of doing strategy work. We get nuances and more breadth. My idea was to get input into the strategic discussion, and that is what scenarios have given us. The Global Scenarios project served well in challenging, making some things visible, and building perspectives that can be discussed then." Another participant stated: "Scenarios are one method we have used,

which is creating a global development framework and then seeing how our operations develop within it and what the links are.”.

All the interviewees expressed that they had utilised scenarios in their strategy work. The utilisation scale was wide and varied from challenging thinking in management-level discussions to modelling scenarios and company-specific and financial figures. All interviews found the scenarios beneficial.

5.3 Difficulties in using Global Scenarios

The second question focused on the possible difficulties in using scenarios in the strategy work. Regarding the problems the participants may have faced in using Global Scenarios, none of the interviews mentioned a lack of support from the upper management. Neither participants pointed out a phenomenon or event outside the global scenarios that would have changed the framework. One of the participants mentioned limited time as a challenge. Four of seven participants mentioned generic levels of scenarios as difficulty in utilising them in strategy work. One participant said: “A typical challenge is that scenarios are high-level global scenarios. So, they can be interesting, but for most people, it is difficult to connect them with the company's operations directly.” Nevertheless, those participants who mentioned the generic level of scenarios accepted that the global scenarios are naturally generic and not company or business-sector-specific. Three participants even emphasised that “a difficulty” or “a challenge” are unnecessarily strong words for their perceptions since they were satisfied with the scenario work and its results. One of the participants expressed that they have not faced any difficulties at all. One participant described the challenges as follows: “Some mental agility and tolerance is required because, at first, the scenarios may seem far from the actual issue. Until then, you realise that they punch right through. We cannot think that we are in our bird haven that the world of evil cannot reach. There are generic challenges in combining abstract and concrete daily activities, but it is not necessarily a problem of scenario work.”.

5.4 Future preparedness

The fourth question aimed to reveal if the future preparedness of participating companies improved due to scenario work. Five of seven participants stated that scenario work has

improved their company's future preparedness. The project had supported that preparation for the future. “The scenario work has helped clarify and outline alternative or possible future directions. It has brought scenario thinking to our work, which is useful when thinking about the future and creating a strategy.”, one participant commented. Another participant stated: “After all, it's a matter of opinion and impossible to measure if the scenario work has affected our future preparedness. It can be argued that people do not necessarily know or notice it, but it still creates awareness and readiness. But I believe scenario work has improved our readiness for the future.”.

Two other participants said that the future will show how well scenario work has succeeded in improving their company's future preparedness. “It's interesting to see what happens to the action plans we work with now, whether we dig them out of the desk drawer or if they stay there,” said one participant. All the participants still indicated that the goals of the scenario work are linked to future preparedness.

5.5 Other observations

The purpose of the final question was to reveal which parts of the project the participants found valuable and gather opinions about the fact-finding missions. Likewise, the idea was to encourage participants to share their insights outside the questions and raise possible improvement areas in the Global Scenarios project.

All the participants expressed that they found meetings with different institutions, think tanks, and people valuable. One participant said: “The trips were good. The quality of speeches and introductions varied somewhat, but they were good on the trips I joined. Especially, McKinsey’s briefs were analytical, with good introductions. The top think tank visits were also good. It is worth putting a lot of focus on the expertise and profile of the introductory speeches. However, when the trip is an investment, there must be something you can't hear or learn otherwise. I believe it is essential always to try to get the world's best expert on each topic as a speaker.”.

Likewise, discussions that included different perspectives and contractionary views were seen as worthwhile. One of the participants, though, wished for more diversity in the debate. “Even though I am an ordinary middle-aged man, I felt that I represented diversity because

I do entirely different things at work than the other participants. The group of participants was somewhat industry-oriented.”, he said.

The participants were generally satisfied with the trips as part of the Global Scenarios project. Three interviewees said it was good to travel abroad and feel the atmosphere authentically. Some of the answers emphasised the importance of high quality, as the trips require an investment of working hours and money. In addition to inspiring presentations and discussions, none of the participants nominated any other specific element that made trips enjoyable. “I was satisfied with the trips; their standard was generally high. The experts we meet must have the best understanding of what this is all about. General presentations that can be obtained here are unnecessary. Considering how difficult it is to organise such trips, they were good.”, described one participant.

Two of seven participants expressed that getting more information on how scenarios can be used in strategy work would have been valuable. One of these participants said: “We were participating for the first time and didn't have former experience utilising scenarios in strategy work. But after talking with people, I got a kind of grip. It could have been helpful for participants to hear about different ways of using scenarios.”.

6 Discussion

The findings of the study supported the hypothesis that scenario analysis is a valuable strategy tool for companies operating in complex and volatile business environments. The scenario approach helps companies to structure the world and improve their ability to think about the future systematically (Shoemaker and Van Der Heijden, 1992, p. 42). Scenarios provide a framework for companies to place weak signals and possible sudden changes in the business environment (Boom and Postma, 1997). According to Teece (2018, p. 48) strong dynamic capabilities enable the creation and implementation of effective business models. Ramírez, Österman and Grönquist (2013) showed that scenario planning provides firms with capabilities that help frame top management attention on possible future contexts. Scenario planning also improves the quality of strategic conversations. Over half of Global Scenarios project participants mentioned that their decision to participate in the Global

Scenarios project was linked to their objective to systematically think or increase their ability to think about the future. The possibility of the learning experience or expectation of a valuable scenario work journey affected their decision to join. This may indicate the participants' aim to strengthen dynamic capabilities in their companies. Scenarios help executives create a structured worldview and improve the quality of discussions and decision-making.

For most participants, increasing geopolitical uncertainties were one reason for joining the scenario project. "There are so many geopolitical uncertainties in the operational environment affecting business. We have had the COVID-19 pandemic and then the outbreak of the war between Russia and Ukraine, the recent events in Israel, increased tensions between China and the United States, and exceptional inflation. Now, if ever, is the time to take them into account," described one participant.

Scenario work creates memories of the future that improve the organisation's future preparedness (Chermack, Lynham, and Ruona, 2001, p. 27). In Shell's approach and its variations, scenarios are intended to help individuals envision themselves as actors in a future context. A memorable scenario can strengthen plausibility (Wilkinson and Kupers, 2013, p. 122). Scenarios may help businesses cope with simultaneous trends and surprises (Postma and Liebl 2005, pp. 165-166). The study results indicated that the scenario work goals are often linked with companies' future preparedness. Two participants stated that the future will show if the scenario work enhances their preparedness. However, most participants thought scenario work improved their company's future preparedness. One of the participants stated: "The work helped us formulate the view that the world has changed. It has raised our awareness that things are different now than a few years ago. In any case, it is not the fault of this scenario project if our future preparedness has not improved – it is our own fault if improvement has not occurred. Indeed, the scenario work has forced us to think, and hopefully, it has challenged every one of us."

Executives can become deeply involved with scenarios with thoughtfully constructed plots and better understand how their organisation can manage change (Ogilvie, 2011, p. 13). Scenario planning can be beneficial, especially when a company wants a common language or framework for discussion (Schoemaker, 1995, p. 27; Van Der Heijden, 2000, p.31). Scenarios provide a common vocabulary and situational picture, enabling more effective communication between managers and the organisation. They allow organisations to have

internal strategic conversations linked with relevant talks elsewhere (Van Der Heijden, 2000, p.31). The study showed that scenario work provided a useful common situational picture or vocabulary for their organisations. As one participant described: “The Global Scenarios project served well the purpose of challenging, making some things visible and building perspectives that can then be discussed.” Scenarios were found beneficial and utilised in strategy work in all participant companies.

Moreover, scenarios can stimulate new thinking (Ogilvie, 2011, p. 57; Chermack, Lynham and Ruona, 2001; Boom and Postma, 1997). Scenarios work best when they challenge people’s thinking and help leaders pay attention to early warning signals (Day and Dennis, 2022, p. 13; Wack, 1996, pp. 36-37). The scenario method encourages business executives to think unthinkable (Chermack, Lynham and Ruona, 2001, p. 7). Moreover, scenarios support learning at organisational and individual levels (Chermack, 2021, pp. 69-175; Ogilvie, 2011; Van Der Heijden et al., 2002, p. 5; Van Der Merwe, 2008; Boom and Postma, 1997). Two of seven participants expressed that the Global Scenarios project developed their thinking. The study indicated that the possibility of the learning experience or expectation of a valuable scenario work journey affected participants' decision to join the project. Also, good timing and internal motives, such as the topical strategy process or familiarity with the scenario tool, were mentioned for reasons. For one company, the possibility of scaling scenarios with its member companies was a prominent reason.

Typical difficulties in using scenarios are lack of time or support from upper management. In this study, data did not provide evidence of a lack of support from the upper management among participating companies. Unexpected events during the scenario process are complex as they might change the picture of possible future paths. In the literature, the events have been called black swans or silver linings (Grant, Haider and Raufuss, 2023). During the Global Scenarios project, the breakthrough of Chat GPT was the kind of phenomenon that forced the group to rethink the scenarios. Nevertheless, none of the project participants mentioned the rise of AI or other unexpected events as a problem.

In the Global Scenarios project, the generic level of the scenarios was found challenging. Two participants would have appreciated more guidance on the next possible steps in the organisation and tips for utilising the scenarios after the project. Moreover, limited resources, such as time, were seen as a challenge. The prior study provides contrary views on the challenge of the generic-level scenarios. Wack emphasised options as the outcome of

scenario planning, as without options and connection to decisions, he saw scenarios just as a set of exciting stories (Chermack and Coons, 2015). Nevertheless, Schwarz (1996, p. 57) states that even though narrow scenarios can be valuable for organisations and missions, scenarios are too often developed just for a small, focused situation when there is a risk that more significant issues and their consequences can be missed. It has been recognised that the typical way of doing scenario work today in moderate-length practical workshops may leave managers questioning what to do next and how they can utilise scenarios in their organisation (Chermack and Coons, 2015). In the coming scenario projects, the facilitator could consider encouraging more peer-to-peer discussion on the possibilities of using scenarios in strategy work. Probably also outspoken examples of how scenarios have been utilised in the companies could benefit newcomers.

Strategy workshops can support strategic continuity or stimulate strategic change (Seidl and Guérard, 2015). High satisfaction with scenario project workshops abroad may mean that the workshops were valuable in the context of the strategy works of the participant companies and support the view of strategy as practice. “Presentations by high-level external experts were valuable, as were discussions with them. Wrapping discussions up is essential so things are not left in the air. That is why the sessions are useful, and they have value.”, stated one participant. However, it is still difficult to evaluate whether the workshops only were the most critical factors on the trips or if the other elements combined with the workshops, such as content provided by an external speaker, were more essential. An additional interview question specified for the workshops could have helped to distinguish the insights on the workshops, presentations of the external speakers, and other content.

Expectations of the Global Scenarios project varied depending on the participant company. Participants' expectations aligned with the NWO's offering and were met well. One executive indicated that the primary purpose of the work was to raise possible future scenarios into strategic discussion. In some companies, the utilisation of scenarios was advanced; for example, one company had modelled the financial impacts of different scenarios. One organisation had used scenarios widely with its member companies. Participants' varying expectations was one interesting study finding that would deserve a more profound examination. Not only the participants' views on scenario work results but also their expectations may reflect the differences in the use of scenario analysis and other strategy tools.

Several participants shared the NWOs' view that discussions with different institutions think tanks and people in a scenario project are essential. This finding may indicate that the network of international experts is a precious element of the Nordic West Office's expertise. For some companies, a project such as Global Scenarios may provide a unique opportunity to meet experts outside their business-specific networks.

Scenarios are tool to expand understanding of the world. The objective of scenario work is to challenge the mental models (Postma and Liebl, 2005, p.165; Van Den Hejden, 2002, pp. 33-35; Boom and Postma, 1997). Scenarios facilitate discussions that reveal and challenge executives' assumptions in a safe atmosphere (Wilkinson and Kupers, 2023, p. 122). The scenario workshop trips abroad were mentioned positively in all interviews. Two participants described them as eye-opening experiences. One participant pointed out the trip to Singapore as an example: "We discussed how economic wealth has moved in Singapore. When I looked at the street view, I saw luxury apartments and Rolls-Royces of any colour outside the hotels. This change has happened just in a couple of years." Nevertheless, the business trips were seen as a notable investment, and the expectations for content were reasonably high. During the scenario project, the business executives recognised an opportunity to meet people outside their business area and networks. Discussions with international experts were seen as beneficial during the trips. Likewise, the experience of visiting different destinations was found valuable. Contradictory views in discussions were considered inspiring. One participant described: "Agreeing with others is nice, but it's not so rewarding. Different perspectives are beneficial, even if hearing them is not always pleasant. You may recognise how little you know."

Two participants mentioned that the Global Scenario project group was somewhat industry-oriented. This remark parallels findings of Stenfors et al.'s (2006, p. 937) that traditional OR/MS tools have a strong position in engineering-oriented industries. However, earlier literature provides examples of how scenario analysis has been commonly and successfully used in other sectors, such as media (Oliver and Parrett, 2018). This leads to the conclusion that a more comprehensive selection of participants from different business sectors could bring diversity to discussions in scenario workshops. It could also ensure more versatile views, which was one factor that participants appreciated.

These remarks endorse the Penttilä's view on partners' critical role in a successful project. Moreover, the scenario work and fact-finding missions abroad must be outstanding

experiences to ensure that participants find them worthwhile. As possible improvement areas of the scenario project, some participants sought a more diverse group of companies and support or practical guidance on utilising scenarios in strategy work. Overall, the answers indicated that Global Scenarios were well utilised in the strategy work, and participants found them beneficial for business. Some participants also expressed that the scenario project had been valuable as a personal learning experience.

Scenario planning has been criticised for several methodological shortcomings. The arguments on the effectiveness of the scenario approach in strategic planning have been claimed to lack scientific evidence (Cordova-Pozo and Rouwette, 2023; Spaniol and Rowland, 2018). When a group of postgraduate students from the University of Oxford made a company visit to the Nordic West Office in the Autumn of 2023, one of their first questions was which methodology the Nordic West Office was using for their scenario analysis. The question is relevant, and the academic critique of the scenario approach is still valid. However, this study shows that, despite the academic critique, business executives find scenario analysis useful in strategy work. All participating companies utilised Global Scenarios in their strategy work. This finding strengthens the earlier evidence of the scenario method as an effective business strategy tool (Wilkinson and Kupers, 2013; Postma and Liebl, 2005; Van Der Heijden, 2000). It is especially beneficial for companies operating in increasingly complex, changing, and global business environments (Erdmann, Sichel and Yeung, 2015; Verity, 2003).

This study provides insights into how executives use strategy tools and thereby contributes to the research gap identified by Stenfors et al. (2006, p. 930). Phadnis, Caplice and Sheffi (2016) state that there is hardly any study on executives' judgement regarding scenario analysis as a strategy tool. This study also provides empirical evidence of the effect of scenario planning from the perspective of executives. Moreover, according to Meadows and O'Brien (2020, p. 158), scenario literature often fails to differentiate between scenario developers and users. This study contributes to filling this research gap by distinguishing the views of the Global Scenarios project facilitator from the Nordic West Office and the business executives who were project participants.

7 Conclusions

The study has demonstrated that all participating companies in the Global Scenario project have utilised scenarios in their strategy work. Global Scenarios provided several benefits for the participants. For many of them, uncertainty in the business environment and the aim to think the future systematically were reasons to participate in the project. Ultimately, most participants thought scenario work improved their company's future preparedness. The results indicated that scenario work provided a useful common situational picture or vocabulary for their organisations. The study showed that scenario workshop trips were worthwhile experiences that served the purpose of understanding the world better and generating new thinking. Thereby, the study supported the earlier findings of scenario analysis as a helpful tool for companies operating in uncertain business environments and strengthened the idea of its benefits.

This case study provides valuable insights for scenario practitioners and business leaders by revealing the executives' perspective on scenario work. It examines the executives' use of scenario analysis and their judgement. The study successfully distinguishes the scenario developer's and users' views in one business case. Moreover, the study indicates the customer satisfaction of the NWO's customer companies. It also continues the research field of scenario method by presenting one practical implication of Shell's scenario method.

This evaluation of the scenario method as a strategy tool is limited to one specific project conducted with Finnish business executives. The study does not compare the scenario method with the other strategy tools that participating companies might use. Conclusions are made after early the project. Therefore, the possible benefits or obstacles that participating companies may have in their strategy work in the longer term are not shown. The study focuses on the Global Scenarios Project and does not observe the consultancy's other projects. Neither does it compare the scenario work with any competing practitioners in Finland.

The world economy, geopolitical tensions, great power relationships, and rapid technological development, including AI, will continue shaping the environment in which companies operate. The future will show what kind of strategy tools companies need to stay competitive and how scenario analysis can contribute to strategy work in the changing world.

Further research on scenario analysis as a strategy tool in the business sector is welcome for a more comprehensive understanding of the utilisation options and benefits it may provide.

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