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STRATEGIC TOOLKIT FOR SCENARIO DEPLOYMENT OF ENTERPRISE STRATEGIES

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Abstract. *Purpose of the article.* The purpose of the article is to substantiate a strategic toolkit for scenario deployment of enterprise strategies under conditions of high uncertainty, technological change, market turbulence, and increasing complexity of the business environment. The study focuses on moving scenario planning beyond the preparation of alternative descriptions of the future toward their systematic integration into strategic decision-making, resource allocation, strategy implementation, and continuous monitoring. Particular attention is paid to the relationship between scenario planning, strategic foresight, strategic agility, organizational learning, dynamic capabilities, quantitative modelling, and artificial intelligence. The article seeks to identify the methodological instruments that enable an enterprise to transform alternative future scenarios into strategically actionable options, stress-test existing strategies, establish early-warning mechanisms, and maintain strategic flexibility. *Research methodology*. The research is based on a conceptual and analytical approach combining a systematic interpretation of recent academic literature on scenario planning, strategic management, corporate foresight, strategic agility, and decision-making with methodological synthesis. The theoretical framework integrates qualitative and quantitative approaches to scenario development, including environmental scanning, PESTEL analysis, horizon scanning, identification of critical uncertainties, impact–uncertainty matrices, scenario narratives, stress testing, simulation, multi-criteria analysis, multi-objective optimization, real-options logic, and early-warning indicators. Particular emphasis is placed on the integration of scenario planning with dynamic capabilities and strategic agility, as well as on the opportunities and limitations associated with the application of artificial intelligence to scenario generation and strategic analysis. The methodological synthesis follows the contemporary understanding of scenario planning as a process that should generate actionable knowledge and support organizational decision-making rather than merely produce alternative future narratives. *Results*. The research demonstrates that the strategic value of scenario planning emerges primarily when scenarios are incorporated into the complete strategic management cycle. A practical framework is proposed that connects the formulation of a strategic question with environmental scanning, identification of critical uncertainties, construction of alternative scenarios, development of strategic options, stress testing, assessment of strategic robustness, resource allocation, establishment of early-warning indicators, and periodic strategic adjustment. The study substantiates the usefulness of distinguishing between no-regret actions, scenario-dependent initiatives, and flexible strategic options. Such differentiation enables enterprises to combine stability with adaptability and avoid excessive dependence on a single forecast of future conditions. The analysis also shows that scenario deployment can strengthen strategic agility by improving the organization's ability to sense environmental changes, evaluate alternative responses, and reconfigure resources. This is particularly important in volatile environments where conventional extrapolative planning may be insufficient. *Practical implications.* The practical implications concern the institutionalization of scenario planning within enterprise strategic management. Scenario processes should be connected with budgeting, investment decisions, strategic performance indicators, risk management, and organizational development. Early-warning indicators and predefined trigger points can transform scenarios into an operational mechanism for timely strategic adjustment. Quantitative modelling and multi-objective optimization can complement qualitative scenario narratives by providing a more rigorous assessment of strategic consequences, while artificial intelligence can increase the efficiency of environmental scanning, information synthesis, scenario generation, and monitoring. Nevertheless, the findings emphasize that AI should support rather than replace managerial judgement, since strategic relevance, originality, contextual plausibility, and

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organizational feasibility require human interpretation. Contemporary research confirms the growing importance of integrating scenario planning with decision-making and combining different methodological approaches. *Value/Originality*. The originality of the article lies in treating scenario deployment not as an isolated forecasting technique but as an integrated strategic management capability that connects foresight with implementation. The proposed interpretation emphasizes the transition from "scenario construction" to "scenario deployment," in which alternative futures directly influence strategic options, organizational resources, monitoring systems, and adaptive decisions. The article contributes to the strategic management literature by synthesizing qualitative, quantitative, digital, and AI-supported instruments into a coherent toolkit for enterprise strategy implementation. Its practical value consists in providing a structured framework that can be adapted by enterprises operating under different levels of uncertainty and across different industries. The approach is consistent with recent research emphasizing that the ultimate value of scenario planning should be assessed through its ability to generate actionable knowledge and influence organizational strategy and practice.

Keywords: artificial intelligence, enterprise, foresight, organizational resilience; scenario planning, strategic agility, strategic decision-making, strategic management, strategic planning, uncertainty.

JEL Classification: M10, O21, O32

1. Introduction

Contemporary enterprises operate in an environment characterized by accelerating technological change, geopolitical instability, restructuring of global value chains, changing consumer behavior, increasing regulatory pressure, and growing uncertainty concerning the future configuration of markets. Under such conditions, conventional strategic planning based primarily on extrapolating historical trends and constructing a single expected future becomes increasingly limited. The fundamental challenge of strategic management is therefore shifting from predicting the future with a high degree of accuracy toward preparing the enterprise for several plausible trajectories of environmental development. Scenario planning has become one of the approaches capable of addressing this challenge because it enables managers to examine alternative futures, identify critical uncertainties, test strategic assumptions, and develop flexible responses (Phadnis & Darkow, 2021; Jashari et al., 2022).

The relevance of scenario deployment is determined by the fact that a scenario itself is not a strategy. Its managerial value emerges when alternative images of the future are transformed into concrete strategic options, action plans, resource requirements, early-warning indicators, and mechanisms for switching between strategic trajectories. Consequently, scenario planning should be understood not as a one-time analytical exercise but as an integrated strategic management process that connects environmental scanning, identification of uncertainties, scenario construction, strategic stress testing, decision-making, implementation, and continuous monitoring. In this regard, scenario planning can contribute to organizational adaptability by helping managers consider developments that may remain invisible within conventional short-term planning processes (Phadnis & Darkow, 2021).

The contemporary development of scenario methodology is also associated with its integration with strategic agility, dynamic capabilities, corporate foresight, organizational learning, quantitative modelling, and artificial intelligence. Scenario planning increasingly functions as an interface between the analysis of possible futures and the development of organizational capabilities required to respond to them. Research on strategic agility indicates that enterprises capable of identifying environmental changes, acquiring relevant information, reallocating resources, and rapidly adapting their strategic priorities are better positioned to respond to uncertainty (de Diego Ruiz et al., 2023; Tarba et al., 2023). At the same time, developments in corporate foresight demonstrate that scenario planning is becoming increasingly connected with horizon scanning, roadmapping, emerging-technology analysis, and ecosystem-level strategic thinking (Spaniol & Rowland, 2022; Shaposhnykov et al., 2024).

The purpose of this paper is to systematize the contemporary strategic toolkit for scenario deployment of enterprise strategies and to identify the main conditions for its practical implementation. The paper focuses on the theoretical foundations of scenario deployment, its methodological instruments, the transformation of scenarios into strategic alternatives, stress testing of strategic

decisions, the use of early-warning indicators, and the integration of digital and artificial intelligence tools into scenario processes. The analysis is based on recent European and American academic publications from 2021–2025 addressing scenario planning, strategic foresight, strategic agility, scenario modelling, decision-making, and artificial intelligence.

2. Key Theoretical Approaches

Scenario deployment of enterprise strategies can be defined as a systematic process of developing, comparing, and operationalizing several plausible trajectories of future environmental development in order to determine strategic alternatives and organizational responses that remain viable under different combinations of external and internal conditions. Unlike conventional forecasting, which usually attempts to identify the most likely future, scenario planning assumes that the future cannot be reliably reduced to a single expected trajectory. Its objective is therefore to construct a structured set of plausible futures and examine the implications of each for strategic decisions. Recent research confirms that scenario studies in business and management have developed considerably beyond the traditional construction of narrative futures and now incorporate decision analysis, quantitative modelling, optimization, and combinations of qualitative and quantitative methods (Jashari et al., 2022).

The conceptual logic of scenario deployment can be represented as a sequence linking the environment, uncertainties, scenarios, strategic options, decisions, actions, and monitoring. The enterprise first identifies relevant environmental forces and trends, then distinguishes relatively predictable developments from critical uncertainties. These uncertainties are subsequently transformed into alternative scenarios. The enterprise then examines how its existing strategy and potential strategic alternatives would perform under each scenario. Finally, it identifies indicators that can reveal which trajectory is beginning to materialize and determines the actions that should be taken if particular thresholds are reached. Consequently, scenario planning is inherently cyclical rather than linear. The strategic process does not end when a scenario document is approved; instead, scenarios become a permanent reference framework for strategic monitoring and adaptation.

A fundamental theoretical foundation of scenario deployment is the distinction between risk and uncertainty. Risk exists when possible outcomes can be identified and their probabilities can at least theoretically be estimated. Uncertainty is more problematic because the range of possible outcomes may be identifiable while their probabilities remain unknown or unreliable. Under conditions of deep uncertainty, traditional forecasting techniques can become misleading because they tend to assume a certain continuity of causal relationships. Scenario planning addresses this problem by asking how the enterprise would perform under fundamentally different assumptions about the future. Therefore, scenarios should not be interpreted as forecasts whose accuracy can later be measured against actual events. Their primary value lies in testing strategic assumptions and improving organizational preparedness (Jashari et al., 2022; Oliver, 2023).

An important theoretical interpretation treats scenario planning as a process of organizational learning. Scenarios create an environment in which managers can question established assumptions about markets, technologies, competitors, customers, supply chains, and business models. Rather than simply producing information, scenario exercises can alter the way decision-makers interpret the external environment. This learning effect is especially important when the future contains developments that cannot be inferred directly from historical experience. Scenario planning therefore has a cognitive function: it encourages managers to recognize that the continuation of current conditions is only one among several possible futures.

Ramirez (2022) emphasizes the importance of interaction between scenario practitioners and organizational decision-makers. Scenario planning is unlikely to create substantial strategic value if it remains an external consulting exercise disconnected from managerial decision-making. The process must generate a strategic dialogue in which managers collectively examine assumptions, challenge existing interpretations, and consider alternative responses. From this perspective, the quality of scenario planning depends not only on methodological sophistication but also on the extent to which scenarios become embedded in organizational conversations and decisions. Another important theoretical foundation is the concept of strategic agility. Strategic agility

refers to the ability of an enterprise to recognize changes, make timely decisions, and reconfigure its resources and activities in response to changing circumstances. Scenario planning contributes to strategic agility by creating structured mechanisms for environmental sensing and strategic anticipation. However, the relationship is reciprocal: scenarios are useful only when the organization possesses sufficient flexibility to act upon the insights generated by them. Research by de Diego Ruiz et al. (2023) demonstrates that strategic agility is not generated by a single organizational practice but emerges from configurations of organizational conditions and capabilities. Consequently, scenario planning should be integrated with broader organizational mechanisms supporting flexibility, information sharing, experimentation, and rapid decision-making.

This relationship can also be explained through the dynamic capabilities perspective. Dynamic capabilities involve an enterprise's ability to sense changes and opportunities, seize them through strategic decisions, and transform its resource base when necessary. Scenario deployment can support all three dimensions. Horizon scanning and environmental analysis contribute to sensing; scenario evaluation and strategic option development support seizing; and the implementation of contingency strategies, resource reallocation, and organizational restructuring contribute to transformation. Scenario planning therefore becomes an instrument through which dynamic capabilities can be developed and exercised rather than merely a technique for producing alternative narratives. Corporate foresight provides another important theoretical perspective. Foresight encompasses a broader set of activities aimed at understanding possible, probable, and desirable futures, including horizon scanning, emerging-technology analysis, Delphi studies, roadmapping, trend analysis, and scenario planning. The integration of these instruments enables enterprises to construct a more comprehensive picture of environmental change. Spaniol and Rowland (2022) demonstrate the relevance of corporate foresight for business ecosystems, showing that future-oriented analysis can extend beyond the boundaries of a single organization and involve interconnected stakeholders. This is particularly significant for enterprises operating in industries where strategic outcomes depend heavily on suppliers, technological partners, platforms, regulators, infrastructure providers, and other ecosystem participants.

The ecosystem perspective changes the scope of scenario deployment. The enterprise should not examine only direct competitors and customers but also the broader system within which its strategy operates. For example, a manufacturing enterprise may be affected simultaneously by technological developments, energy prices, transportation infrastructure, environmental regulations, supplier concentration, geopolitical conditions, and changing customer expectations. A scenario that ignores these interactions may provide an incomplete basis for strategic decision-making. Corporate foresight therefore complements scenario planning by broadening the range of signals and actors considered in strategic analysis (Spaniol & Rowland, 2022). The strategic toolkit for scenario deployment can be organized into several interconnected groups of methods. The first group consists of environmental scanning tools, including PESTEL analysis, trend analysis, horizon scanning, monitoring of weak signals, technological intelligence, and competitive intelligence. Their purpose is to establish a broad field of potential drivers of change. The second group includes uncertainty-identification methods such as expert assessment, Delphi, causal mapping, cross-impact analysis, and impact–uncertainty matrices. The third group concerns scenario construction and includes intuitive logics, morphological analysis, trend-impact analysis, cross-impact balance, backcasting, and scenario matrices. The fourth group contains decision-support methods, including stress testing, what-if analysis, decision trees, simulation, multi-criteria analysis, and real-options logic. The fifth group includes monitoring instruments such as trigger points, early-warning indicators, dashboards, and strategic control systems.

This methodological diversity reflects the evolution of scenario research. Jashari et al. (2022) demonstrate that business and management scenario research increasingly incorporates combinations of methods and connects scenario planning with decision-making and quantitative analysis. Consequently, an enterprise should not expect one universal scenario technique to be sufficient for all strategic problems. The appropriate methodological configuration depends on the level of uncertainty, the complexity of the decision, the availability of data, the time horizon,

and the reversibility of the strategic choice. The quality of scenarios is another important theoretical issue. A scenario should be plausible and internally consistent, but it should also be sufficiently different from the current dominant assumptions to challenge managerial thinking. If all scenarios represent minor variations of the current business environment, the process will generate little strategic value. Wolf et al. (2023) emphasize the importance of scenario originality and argue that scenario development may be constrained by existing knowledge and dominant mental models. This suggests that scenario processes should deliberately create space for alternative interpretations, weak signals, unconventional combinations of drivers, and perspectives that challenge established organizational beliefs.

Scenario originality is particularly important because enterprises tend to extrapolate familiar patterns. Managers may naturally construct scenarios such as "high growth," "moderate growth," and "low growth" without questioning the underlying structure of the industry. More strategically valuable scenarios may instead involve structural transformations, such as the disappearance of a major distribution channel, the emergence of a substitute technology, radical changes in regulation, the fragmentation of international markets, or the creation of entirely new business ecosystems. Such scenarios can reveal vulnerabilities and opportunities that conventional forecasting may overlook (Wolf et al., 2023).

Another major development concerns the increasing use of quantitative modelling. Traditional scenario planning often relied on qualitative narratives and expert judgment. Contemporary scenario research increasingly combines these elements with simulations, time-series analysis, optimization, and computational methods. Steinmann et al. (2024) demonstrate the potential of simulation-based approaches and time-series clustering for generating and analysing multidimensional future scenarios. Such methods are particularly useful when strategic systems contain multiple interacting variables and when the number of possible combinations is too large for purely qualitative analysis. Quantitative methods do not replace qualitative scenario reasoning. Rather, they can complement it. Narrative scenarios provide strategic meaning and help managers understand causal relationships, while quantitative models can estimate the consequences of particular assumptions. This combination is especially valuable for financial planning, supply-chain resilience, capacity management, energy strategy, investment analysis, and technological transformation. The appropriate balance between qualitative and quantitative methods should depend on the characteristics of the strategic problem.

Multi-objective optimization represents another important development in scenario-based decision-making. Enterprises rarely optimize a single strategic criterion. Growth may conflict with financial stability, innovation may conflict with operational reliability, and cost reduction may conflict with resilience. Korhonen et al. (2025) demonstrate how multi-objective optimization can support scenario-based decision-making by evaluating alternatives across different objectives and future conditions. This approach is particularly relevant when the enterprise needs to select strategies that perform acceptably across multiple scenarios rather than maximize performance under one assumed future.

Artificial intelligence introduces a further dimension to scenario deployment. AI can support environmental scanning, analysis of large information volumes, identification of emerging trends, generation of alternative scenario narratives, comparison of strategic assumptions, and development of what-if questions. Generative AI can also help managers explore alternative interpretations of the same information. However, AI-generated scenarios should not be treated as inherently objective or innovative. Spaniol and Rowland (2023) demonstrate that AI-assisted scenario generation raises important questions concerning the originality, plausibility, and strategic usefulness of machine-generated futures. The main risk is that AI systems may reproduce dominant patterns in existing data rather than identify genuinely discontinuous developments. Consequently, human strategic judgment remains essential. Csaszar et al. (2024) demonstrate the growing potential of artificial intelligence for strategic search and decision-making, but the value of AI depends on the organizational context and on how decision-makers interpret and use its outputs. The most promising model is therefore not full automation but human–AI collaboration, in which AI

expands analytical capacity while managers retain responsibility for strategic interpretation, prioritization, and decisions.

3. Comparative Analysis and Practical Implementation

The practical implementation of scenario deployment should begin with the identification of a concrete strategic question. The enterprise should not start by asking which scenarios can be constructed but rather which decision requires better understanding of uncertainty. Examples include whether to enter a new market, invest in a new technology, restructure the supply chain, acquire another company, develop a new product, change the business model, or increase production capacity. Defining the strategic question establishes the scope of the analysis and prevents scenario planning from becoming an abstract exercise. The next step is systematic environmental scanning. The enterprise should collect information about political, economic, social, technological, environmental, and legal developments, while also monitoring competitors, customers, suppliers, technological platforms, and regulatory institutions. PESTEL analysis can provide the initial structure, but it should be complemented by horizon scanning and analysis of weak signals. The purpose is not to collect the largest possible volume of information but to identify developments capable of changing the assumptions underlying the current strategy.

The identified drivers should then be classified according to their expected impact and degree of uncertainty. Factors with high impact and low uncertainty represent relatively stable elements of the strategic context. Factors with high impact and high uncertainty are particularly important because they can generate substantially different futures. These critical uncertainties should form the foundation of the scenario architecture. A practical impact–uncertainty matrix is therefore one of the most useful tools for narrowing a large environmental information field to a manageable set of strategic variables. Once the critical uncertainties have been identified, the enterprise can construct several alternative scenarios. A practical scenario portfolio should normally contain three or four substantially different scenarios. Too few scenarios may reproduce a narrow view of the future, while too many may make the analysis difficult to use in managerial decision-making. The scenarios should differ not merely in the intensity of one variable but in the underlying logic of environmental development.

Each scenario should be developed as a coherent narrative explaining what changes, why it changes, how the changes interact, what the resulting environment looks like, and what the consequences are for the enterprise. Scenario narratives should include assumptions concerning markets, technologies, regulation, competitors, customers, supply chains, capital availability, and organizational requirements. They should also identify potential discontinuities and events that could accelerate movement toward a particular scenario. An important practical principle is that scenarios should not be assigned artificial probabilities unless the organization has a defensible basis for doing so. The purpose of scenarios is generally to examine uncertainty rather than create a false impression of precision. If probabilities cannot be reliably estimated, the enterprise should focus on robustness: which strategic options remain acceptable under the widest range of plausible futures? This principle is particularly relevant in conditions of deep uncertainty, where assigning numerical probabilities may create more confidence than knowledge actually justifies (Jashari et al., 2022).

The next stage is the transformation of scenarios into strategic alternatives. For every scenario, management should identify opportunities, threats, resource requirements, critical capabilities, financial implications, and potential strategic responses. The result should be a portfolio of strategic options rather than a single fixed plan. The current strategy should then be subjected to systematic stress testing. Each strategic objective, initiative, and major investment should be examined under all scenarios. Management should determine whether the strategy remains financially viable, operationally feasible, technologically relevant, and organizationally sustainable. This process can reveal which elements of the strategy are robust and which depend heavily on particular environmental assumptions.

Strategic alternatives should subsequently be evaluated according to several criteria. These may include expected financial performance, investment requirements, risk exposure, resilience, strategic fit, technological readiness, organizational feasibility, sustainability, and reversibility. A multi-criteria evaluation framework allows management to avoid the problem of selecting strategies solely on the basis of short-term financial indicators. In situations of

high uncertainty, the enterprise should also consider the reversibility of strategic decisions. Large irreversible investments require stronger evidence than small reversible experiments. Scenario planning can therefore be integrated with real-options logic. Instead of immediately committing substantial resources, the enterprise can undertake staged investments, pilot projects, partnerships, or limited market entry. These actions preserve the possibility of scaling up, modifying, or abandoning the initiative as additional information becomes available. The practical value of scenarios increases significantly when each scenario is linked to a system of early-warning indicators. For every scenario, management should identify measurable signals that indicate whether the external environment is moving in the corresponding direction. Such indicators may include changes in market growth, customer behavior, competitor investment, technology adoption, regulation, commodity prices, logistics costs, interest rates, or geopolitical conditions.

The system of indicators should be integrated with strategic controlling and corporate performance management. Scenario assumptions should influence budgeting, resource allocation, strategic KPIs, and investment reviews. Otherwise, scenario planning risks becoming detached from actual organizational decisions. A practical enterprise should therefore develop scenario-specific ranges for key indicators such as revenue growth, EBITDA, cash flow, capital expenditure, market share, working capital, productivity, and customer acquisition costs. Scenario deployment should also be incorporated into the annual strategic planning cycle. However, annual planning alone is insufficient in highly turbulent environments. The enterprise should conduct a comprehensive scenario review periodically and continuously monitor a smaller number of critical indicators. This creates a balance between methodological depth and organizational efficiency. The full scenario architecture may be reviewed annually, while scenario signals and trigger indicators can be monitored monthly or quarterly. The institutionalization of scenario planning is essential. A responsible organizational unit or strategic foresight function should coordinate the process, maintain scenario documentation, monitor indicators, organize strategic workshops, and initiate reviews when trigger conditions are reached. At the same time, scenario planning should not be isolated within one department. Representatives of finance, marketing, operations, supply chain, human resources, information technology, research and development, and risk management should participate because each function observes different signals of environmental change.

A major implementation barrier is strategic inertia. Managers may recognize the importance of uncertainty while continuing to make decisions based on familiar assumptions. This problem can be intensified by short-term performance incentives. If managers are rewarded exclusively for current-year financial outcomes, they may have limited motivation to invest in capabilities that increase future strategic flexibility. Scenario planning should therefore be connected with performance management systems that recognize long-term resilience, innovation, and organizational adaptability. The use of artificial intelligence can improve the efficiency of the practical scenario process. AI systems can support the analysis of large volumes of external information, identify recurring themes, summarize expert material, generate alternative scenario hypotheses, compare scenario narratives, and create preliminary strategic questions. Generative AI can also be used to challenge management assumptions by producing alternative interpretations of the same environmental evidence. However, AI-generated scenarios require systematic human validation. Managers should evaluate whether the scenarios are internally consistent, strategically relevant, sufficiently different from one another, and capable of representing discontinuous developments. Spaniol and Rowland (2023) highlight the importance of critically evaluating AI-generated scenarios rather than assuming that machine-generated narratives automatically provide superior foresight. Human experts remain essential for understanding organizational context, institutional constraints, tacit knowledge, and strategic priorities.

4. Conclusions

The analysis conducted allows us to draw the following general conclusions:

1. Scenario deployment of enterprise strategies represents a contemporary approach to strategic management that responds to the increasing complexity and uncertainty of the business environment. Its fundamental principle is to replace excessive reliance on a single expected future with systematic consideration of multiple plausible

trajectories. The objective is not to predict which scenario will definitely occur but to prepare the enterprise to recognize emerging changes and respond through predefined strategic options.

2. The theoretical analysis demonstrates that scenario deployment is closely connected with strategic foresight, organizational learning, strategic agility, and dynamic capabilities. Scenario planning supports the sensing of environmental change, strategic dialogue, evaluation of alternatives, and development of organizational flexibility. At the same time, its effectiveness depends on the broader ability of the enterprise to reallocate resources, revise assumptions, and implement decisions when circumstances change (Phadnis & Darkow, 2021; de Diego Ruiz et al., 2023).

3. The contemporary strategic toolkit includes environmental scanning, PESTEL analysis, horizon scanning, weak-signal analysis, expert assessment, Delphi, impact–uncertainty matrices, scenario matrices, intuitive logics, stress testing, simulation, multi-criteria analysis, optimization, real-options logic, and early-warning systems. These instruments should not be viewed as mutually exclusive. Their combination enables enterprises to connect qualitative understanding of alternative futures with quantitative evaluation of strategic consequences (Jashari et al., 2022; Korhonen et al., 2025).

4. A central conclusion is that scenarios should not remain descriptive narratives. Their strategic value emerges when they are translated into strategic options, resource requirements, trigger points, and contingency actions. This creates a portfolio-based approach in which the enterprise combines no-regret actions, scenario-dependent initiatives, and flexible strategic options. Such a portfolio can improve resilience because the enterprise does not have to commit all resources to one assumed future.

References:

Phadnis, S. S., & Darkow, I.-L. (2021). Scenario planning as a strategy process to foster supply chain adaptability: Theoretical framework and longitudinal case. *Futures & Foresight Science*, 3, e62. https://doi.org/10.1002/ffo2.62

Sardesai, S., Stute, M., & Kamphues, J. (2021). A methodology for future scenario planning. In R. Fornasiero et al. (Eds.), *Next Generation Supply Chains*. Springer. https://doi.org/10.1007/978-3-030-63505-3_2

Jashari, A., Tiberius, V., & Dabić, M. (2022). Tracing the progress of scenario research in business and management. *Futures & Foresight Science*, 4, e109. https://doi.org/10.1002/ffo2.109

Ramirez, R. (2022). "It depends on the client" – Kees van der Heijden and client-centric scenario planning: A commentary on Rowland and Spaniol 2021. *Futures & Foresight Science*, 4, e106. https://doi.org/10.1002/ffo2.106

Spaniol, M. J., & Rowland, N. J. (2022). Business ecosystems and the view from the future: The use of corporate foresight by stakeholders of the Ro-Ro shipping ecosystem in the Baltic Sea Region. *Technological Forecasting and Social Change*, 184, 121966. https://doi.org/10.1016/j.techfore.2022.121966

de Diego Ruiz, E., Almodóvar, P., & del Valle, I. D. (2023). What drives strategic agility? Evidence from a fuzzy-set qualitative comparative analysis (fsQCA). *International Entrepreneurship and Management Journal*, 19, 599–627. https://doi.org/10.1007/s11365-022-00820-7

Wolf, P., Linden, E., Wittmer, A., & Klotz, U. (2023). Enhancing scenario originality: A conceptual framework for leveraging self-transcending knowledge in scenario development. *Long Range Planning*, 56 (1), 102266. https://doi.org/10.1016/j.lrp.2022.102266

Spaniol, M. J., & Rowland, N. J. (2023). AI-assisted scenario generation for strategic planning. *Futures & Foresight Science*, 5, e148. https://doi.org/10.1002/ffo2.148

Oliver, J. J. (2023). Scenario planning: Reflecting on cases of actionable knowledge. *Futures & Foresight Science*, 5, e164. https://doi.org/10.1002/ffo2.164

Tarba, S. Y., Frynas, J. G., Liu, Y., Wood, G., Sarala, R. M., & Fainshmidt, S. (2023). Strategic agility in international business. *Journal of World Business*, 58 (2), 101411. https://doi.org/10.1016/j.jwb.2022.101411

Steinmann, P., van der Zwet, K., & Keijser, B. (2024). Simulation-based generation and analysis of multidimensional future scenarios with time series clustering. *Futures & Foresight Science*, 6, e194. https://doi.org/10.1002/ffo2.194

Korhonen, P., Liesiö, J., Siljamäki, A., & Wallenius, J. (2025). Supporting scenario-based decision-making with multi-objective optimization. *Futures & Foresight Science*, 7, e70012. https://doi.org/10.1002/ffo2.70012

Csaszar, F. A., Ketkar, H., & Kim, H. (2024). Artificial intelligence and strategic decision-making: Evidence from entrepreneurs and investors. *Strategy Science*, 9 (4), 322–345. https://doi.org/10.1287/stsc.2024.0190

Shaposhnykov, K., Filyppova, S., Bilousov, O., Seleznova, O., & Lozychenko, O. (2024). Regulatory policy for development of digital business in the national economy. *Pacific Business Review International*, 17 (5), 34–42. https://www.pbr.co.in/2024/2024_month/November/3.pdf

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