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## **STRATEGIC PLANNING IN THE WAKE OF SHAPESHIFTING ORGANISATIONAL COMPLEX: COMPLEXITY THEORY PERSPECTIVE**

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### **Abstract**

In today's dynamic business environment, organizations are faced with various challenges from unstable internal forces and environmental drivers. The modern-day market is marked by rapid changes in customer demand, technology, competitive pressures, regulation, and shifting consumer preferences. These mandates necessitate organisations to re-strategise and make adjustments at the operational level, which is the reason organisational change is becoming increasingly significant.

This paper explores complexity theory, giving us a vantage point from which we can understand the intricate interactions and relations that define life within the organisation. Placing strategic planning in this context helps us better appreciate the need for organizations to develop adaptive rather than reactive plans.

Fundamental to complexity theory are interdependence, emergence, and self-organization. Interdependence suggests a focus on how organisational components are interconnected and how an alteration in one aspect of human resources or technology, for example is felt systemwide. It is a complete systems approach to strategy that is important in comprehending the larger effects of decision-making.

Emergence is used to explain collective behaviours and patterns that arise out of interactions between individual elements. This suggests that the potential of an organisation can be more than the sum of its elements, supporting the establishment of an innovation and collaborative culture. Self-organization is used to explain the ability of a system to automatically reorganise and adapt. Organisations that hold this concept in belief foster flexibility and adaptation, allowing teams to respond to problems and opportunities dynamically, particularly in times of crisis.

This paper encourages a change of strategic thought, where leaders observe uncertainty as a chance for exploration and growth rather than a barrier. With the leveraging of dynamism in their environment, businesses can convert threats into opportunities for long-term success. This mindset enables businesses to foster a culture that supports exploration and learning, eventually leading the firm into agility.

Lastly, the research gives a qualitative overview that lays emphasis on interpretative meanings over stringent analytical models in order to communicate the idea that organisations with the know-how of complexity theory are likely to better deal with the complexities of today's business environment, turning problems into prospects for competitive advantage and long-term growth.

### **Keywords**

Strategic planning, Shapeshifting, Complexity theory, Emergent strategy, Organisational development

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## Introduction

Complexity has attracted the interest of management practitioners, scholars and strategists as the adequate conditions for action have proved in practice to be inherently nonlinear (Khashei & Ashofteh, 2016). In today's rapidly evolving business landscape, organisations often face dynamic challenges that require adaptive and innovative approaches to strategic planning. This paper, through a systematic literature review and building on the premise of Negulescu (2019) explores strategic flexibility outlining the challenges in strategic planning from a complexity theory perspective and largely focuses on organisational change and transitional development. The paper seeks to answer how organisations can comprehend and adapt to the changing tides of organisational development change (ODC) in a constant trajectory of economic, technological disruption and adaptive leadership in the era of dynamic transformation management. The paper seeks to employ these transitional constructs as a comprehensive framework for addressing these multifaceted issues.

Furthermore, Wortmann and Jauer (2024) assert that ODC must be strategically managed to inhibit organisational inertia. More importantly, Biçer (2022) notes that resistance to change is the prime phenomenon that circumvents the smooth flow of ODC. The study juxtaposes how ODC planning can be concurrently implemented with formulating appropriate policies for strategic planning to contain resistance to change. The study draws from the complexity theory principle and its specific impact on strategic sub-disciplines, including nonlinearity, self-organisation and coevolution. The aim is to leverage these factors to foster future innovation and growth within the organisational planning literature

Drawing from Afsar (2011), Drejer (2018), and Gandrita (2023), there has been a significant focus on the notion of disruption regarding big data digitalisation, artificial intelligence and economic dynamics. However, Behari-Leak and Ganas (2024), argue that limited focus has been placed on a holistic perspective of disruption and how productive disruption can be utilised as a catalyst to reimagine the organisation's untapped potential. The aim is to strategically position strategic planning processes in the wake of shapeshifting global market fundamentals. The above duo (Behari-Leak and Ganas), drawing from Riddell (2018), contend that complexity is a perfect opportunity to re-engineer or restructure the organisation. To address the challenge of a transient and shapeshifting business and economic cosmos, that affects strategic planning, the paper utilised three critical tenets of complexity theory. The three fundamental tenets are as follows: nonlinearity, self-organisation, and coevolution. These three tenets provide a grounded basis for unpacking the foundations of futuristic strategic planning.

### Strategic Management and Complexity theory

Every manager and entrepreneur understands how a business works and how value is created. In other words, a manager intuitively understands the enterprise's business model. However, although he/she influences all business decisions, in most cases, a manager rarely describes the business model clearly (Linder & Cantrell, 2000). Teece (2010) believes that a business model lacks fundamental theoretical foundation in economics or business studies, while George and Bock (2011) state that the concept of a business model has its roots in corporate practice. However, judging by the number of published papers and scientific research Baden-Fuller and Haefliger (2013), assert that the interest in researching the business model construct is justified and necessary. Below is a review of basic conceptual research in business models and business model innovation.

According to Nathues et al. (2024), the notion of a "Shapeshifting Organisational Complex" indicates the fluid and multidimensional nature of present-day organisations, which are shaped by inherent complexities in their environments. Furthermore, Lartey (2020) asserts that the complexity theory viewpoint can offer valuable perspectives on how organisations can navigate the troubled waters of organisational evolutionary transition with proficiency. The fast-paced and evolving business landscape presents organisations with numerous challenges that demand innovative approaches to strategic planning.

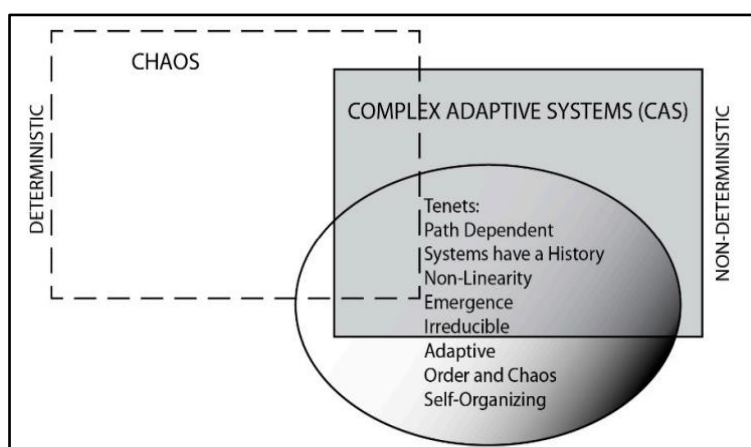
Drawing from Mittelstrass's (2014) reductionistic perspective, complexity theory regards organisations as interconnected systems where different parts interact with each other and their surrounding environment in a highly unpredictable manner. This interdependence means that if one area is subjected to change, it may have an unintended effect on another, rendering rigid strategic plans unnecessary (Alvesson & Blom, 2022). Furthermore, James (2018) states that Organisations should avoid linear strategic planning and adopt iterative and emergent approaches. Hence, they must approach strategy differently.

The study utilises the Complexity theory because it is a clear break from traditional reductionistic

theories like systems theory. After all, non-linear dynamics and adaptation/evolution are key tenets of the transitional and complex organisational existential reality (Turner & Baker, 2019). The duo maintains that complexity theory is a clear departure from traditional reductionistic theories, which do not value the connection of a plethora of elements that influence human behaviour and interaction.

Levy (2020); Lartey (2020) contend that due to the geopolitical dynamics, unstable economies, globalisation, diversity of cultures and multiplicity of divergencies, complexity theory has emerged as a holistic theory through which the connectivity of political, technological and social dynamics can be analysed. Furthermore, Levy (2020) exposes that complexity theory is the perfect theory to employ because it alludes to connectivity, which is a critical component of strategic planning..

In simple terms, traditional theories do not emphasise the interconnectedness of social-ecological, political-legislative, global, and environmental complex dynamics. Turner and Baker (2019) further contend that complexity theory is a newer connectionist theory that better addresses the open social system and the emerging complex dynamics of human existence. In other words, Complexity theory not only gives a holistic perspective on the dimensions of organisational social systems but also reveals the progressive evolution of these social systems as derived from the environment. More importantly, Byrne and Callaghan (2013) clearly reveal that the causal categories of the ecological dimensions are intertwined and cannot be decoded by any dualistic language. The overlap of complex key tenets across the General Systems Theory (GST), complex adaptive systems (CAS), and complexity theory is indicated in Figure 1 below.



**Figure1: Application of Complexity Theory (Turner & Baker, 2019)**

According to Van Der Merwe (2021), Nonlinearity, self-organisation, and Coevolution are fundamental concepts in understanding complex systems across various domains, especially in organisational contexts. Nonlinearity posits that small changes can lead to unpredictable and disproportionate effects, challenging traditional linear causation models. Furthermore, Carroll et al. (2023) posit that unpredictability necessitates adaptive strategies, as organisations must navigate and thrive amidst uncertainty. In addition to the prior submission, Lartey (2020), taping from a contemporary complexity lens, posits that self-organisation allows systems to spontaneously arrange themselves, fostering resilience and innovation without central control; this phenomenon has been increasingly observed in organisational structures responding to market dynamics.

More importantly, Abatecola, Breslin, and Kask (2020) reveal that Coevolution emphasises the interdependent evolution of organisations and their environments. This suggests that organisational changes can instigate shifts in its external context, reinforcing the need for collaborative strategies. Together, these concepts underscore the complexity and dynamism of organisational ecosystems, advocating for frameworks that prioritise flexibility and responsiveness in strategic planning.

### **Complexity, Shapeshifting and Strategic Planning**

Bayne and Saadé (2018) posit that organisations function as complex adaptive systems characterised by nonlinearity, interdependence, and emergent behaviour. More importantly, Nachbagauer (2021), drawing from Snowden (2002), illuminates the Cynefin framework, which suggests that outcomes in complex environments are not merely the result of direct linear cause-and-effect relationships but are influenced by

a multitude of interacting factors. According to Nachbagauer (2021), complex adaptive systems are categorised into two categories: Ordered and unordered; the unordered or non-algorithmic categories are directly congruent to the complexity of the tasks.

Interestingly, Webeck and Arney (2024) argue that traditional strategic planning models, which often rely on static analysis and long-term forecasting, may hinder organisations in responding to the fluid nature of modern markets. Ojha, Patel and Sridharan (2020) indicate that organisations that adopt more dynamic planning processes are better positioned to thrive amid uncertainty. For instance, agile planning frameworks, which emphasize iterative processes and stakeholder collaboration, facilitate quicker adjustments to strategic initiatives in response to real-time feedback. Nathues et al. (2024) elucidate the concept of shapeshifting organisations, which refer to entities that can fluidly alter their structures, strategies, and operations in response to external changes. Such organisations capitalise on their ability to innovate and pivot their inert organisational competencies, which is a necessity in today's volatile business environment. Shapeshifting organisations integrate principles from complexity theory, fostering an adaptive capability that enables them to sense and respond to emerging challenges and opportunities effectively. Bryson, Edwards and Van Slyke (2018) suggest that to enrich strategic planning, organizations can utilise Complexity theory to create frameworks that account for the dynamic interplay of internal and external variables. The above trio (Bryson, Edwards and Van Slyke, 2018) propose that organisations may adopt a complexity-oriented view, which involves recognising the limits of predictability and embracing uncertainty as a catalyst for innovation.

Moreover, Lartey (2020) mentions that applying concepts such as "chaos in affordance", which is the recognition of unpredictable opportunities arising from chaotic environments, can significantly enhance strategic planning. By framing strategic planning through this lens, organisations can identify emergent patterns and leverage them for competitive advantage. According to Nathues et al. (2024), the notion of a "Shapeshifting Organisational Complex" is indicative of the fluid and multidimensional nature of present-day organisations, which are shaped by inherent complexities in their environments. Furthermore, (2020) asserts that the complexity theory viewpoint can offer valuable perspectives on how organisations can navigate the troubled waters of organisational evolutionary transition with proficiency. The fast-paced and evolving business landscape presents organisations with numerous challenges that demand innovative approaches to strategic planning.

### **Research methodology, sample, data collection, measures**

Gregory and Dennis's (2022) contributions to management and organisational studies suggest that this discipline requires a more intricate comprehension of the multiple dimensions of strategic planning. The importance of shapeshifting organisations in this discourse cannot be overstated, as they closely connect with complexity theory. In turn, Turnbull, Chugh, and Luck (2023) explain that the inherent epistemological advantages of narrative review as an innately flexible practice that works in stark contrast to the strict nature of systematic reviews. Due to the methodological flexibility provided, the literary corpus can be extensively studied by researchers, allowing for an integrated collection of perspectives and lived experiences. This methodological pliability is beneficial and essential in the context of fluid and unpredictable collectives, especially when dealing with the multifaceted complexity of phenomena such as strategic decision-making.

By engaging in a vast array of discussions and perspectives, one can deeply grasp the subtleties and intricate mechanics of human behaviour and organisational dynamics, ultimately contributing to achieving a broader comprehension of the complex interplay between individual agency and collective action to cultivate a deeper understanding of the interplay between complexity theory and organisational transformation, one may systematically amalgamate case studies, theoretical discourse, and empirical investigations into cohesive narrative reviews. This integrative approach enriches the analytical landscape and fosters a holistic comprehension of how organisations adapt and evolve amidst the relentless flux of their environments. Thus, this philosophical exploration extends the boundaries of current theoretical frameworks and invites a re-examination of established paradigms within organisational studies.

Hong (2021) further explains that narrative analyses can help one better understand the interplay between strategic planning, complexity, and organisational shapeshifting. By integrating findings from multiple studies, scholars can identify common themes and conflicts within the literature. Combining findings from different areas or environments can enhance discussions about strategies for achieving strategic agility in response to changing market conditions. Practitioners find this depth of understanding

invaluable in implementing adaptive and innovative strategic planning processes.

### **Objective**

This investigation aims to develop an empirically grounded understanding of strategic planning as a heuristic mechanism that reduces complexity and minimises transactional oblivion within organisations, given the turbulent internal and external environment.

### **Data**

This paper meticulously abstracts data from empirical investigations into the intersection between strategic planning, shapeshifting paradigms, and the principles of complexity theory, across the time span 2019 to 2024. Drawing from Sally (2013), the paper argues that the compilation of literature presented in this endeavour is a fundamental supplement to the emergent discoveries made from the chosen repertoire of crucial literary texts. The literature analysis is conducted through a systematic five-step process involving the authors investigating the relationship between strategic planning and complexity dynamics. Every academic work was assessed for its relevance by conducting a thorough analysis of the titles, abstracts and terms of reference

A thorough examination was conducted to identify specific inclusion and exclusion criteria, highlighting key themes of strategic strategies during turbulent times. Scholarly works that did not include at least two of these significant constructs were consistently discarded. The article summarises three distinct sources, organised systematically from the early to mid-19th century to the most recent periods, and then presents them. The arrangement allows for an unbiased evaluation and fosters the systematic sequential application of fresh ideas. In Table 1, we find these three sets of data, each containing ten key players, carefully summarised using an articulated screening process that emphasises the nuanced and complex nature of strategic planning within a constantly changing context.

## **Research results and discussion**

The abstracted data for this investigation was carefully and comprehensively analysed using Sally's (2013) literature matrix, an epistemologically structured instrument that categorises and synthesises complex information. Using this methodological approach, we could detect patterns and trends in data that would have been left unresolved, which allowed us to uncover the underlying structures and interrelationships between various variables. The systematic mapping of each occurrence onto the matrix allowed for a thorough exploration of the relational dynamics involved, leading to a more comprehensive interpretation of our findings. The intricate analytical approach exposed the connections between our findings and the existing literature and placed us within a more comprehensive philosophical framework. Additionally, the conclusions drawn from this analytical process contribute to developing current academic knowledge and hold significant potential in shaping future research pursuits. Hence, the use of Sally's (2013) literature matrix proved crucial in improving the clarity and depth of our data analysis, ultimately contributing to the strength of the academic research as indicated in Table 1 below.

The order in which the data was analyzed is indicated in the table above. The paper then used NVivo 15 to gather a higher-order abstraction of concepts. The study used NVivo 15 to develop a conceptual ecology for dataset 1, given below.

DATA SET 1			
Number	Author/s	Key Concept	Year of Publication
1	Turner & Baker	Complexity Theory	2019
2	Đulabić	Complexity theory view point	2020
3	Levy	Human Behaviour	2020
4	Lartey	Multiplicity of divergence	2020
DATA SET 2			
5	Nachbagauer	Complex Adaptive systems	2021
6	Van Der Merwe	Nonlinearity	2021
7	Alvesson & Bloom	Strategic Planning	2022
8	Carroll et al	Unpredictability	2023
DATA SET 3			
9	Behari-Leak & Ganas	Productive disruption	2024
10	Webeck & Armev	Traditional Strategic Planning	2024
11	Nathues et al	Shapeshifting	2024
12	Wortman & Jauer	Organisational Change & Development	2024

Table 1: Summary of data sets: Source Author

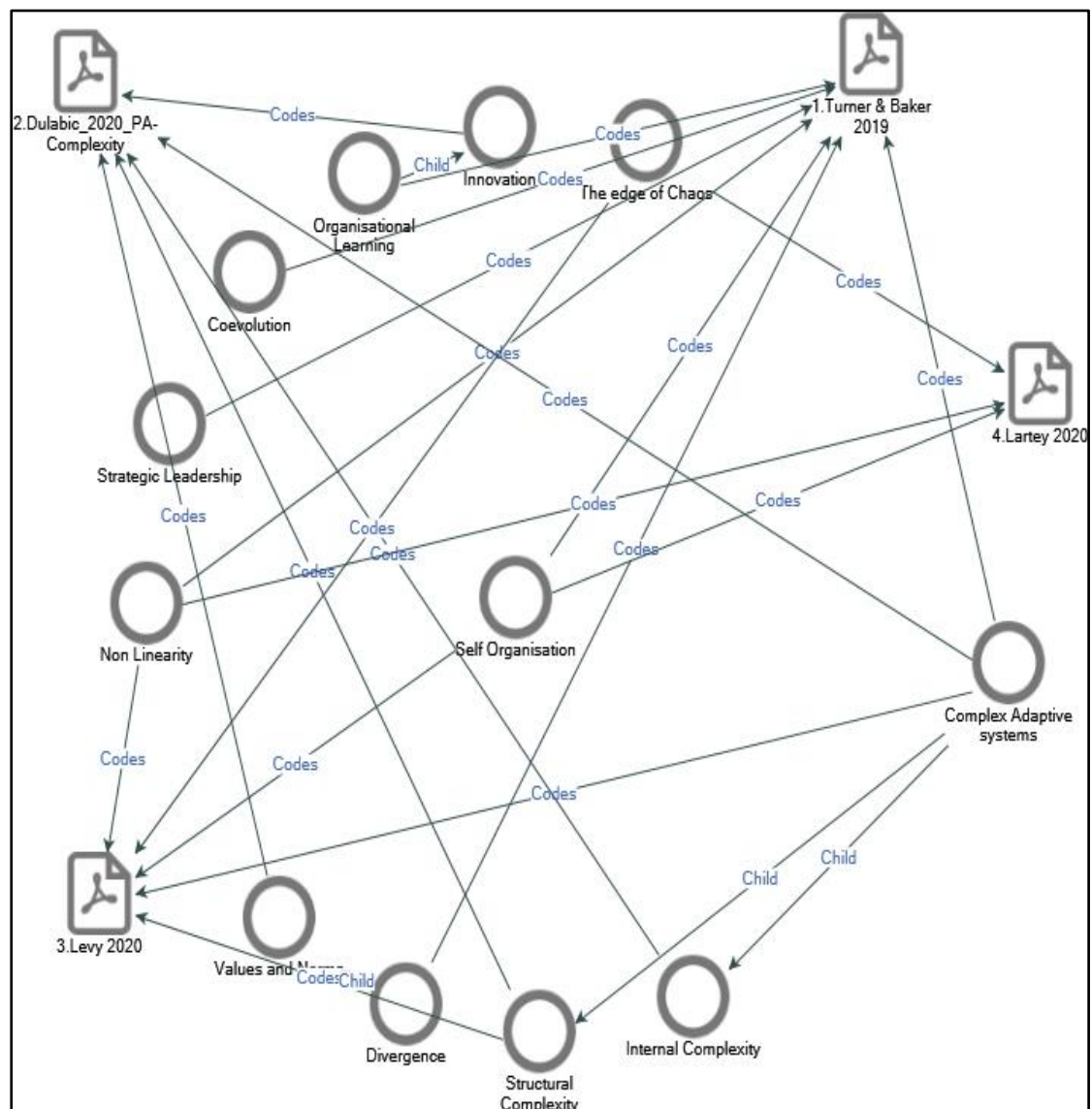


Figure 1: Comparison of codes, data set 1: Source Authors

The diagram below demonstrates the interconnectedness of emerging themes through a computational analysis of codes from the literature in dataset 1. For easy analysis, the study utilised the frequency table generated by NVivo 15 to complement the conceptual ecology given above.

**Table 2: Codes of initial data set: Source Authors**

Name	Description	Files	References
1. Coevolution	Coevolution is the process by which two or more entities influence each other's evolution through reciprocal adaptations over time.	2	3
2. Complex Adaptive systems	Complex adaptive systems are dynamic networks of interacting agents or components that adapt and evolve in response to environmental changes, exhibiting unpredictable and self-organising behaviour.	4	8
3. Internal Complexity	Internal complexity refers to the intricate interactions and relationships within a system or organization that can influence its functionality and behaviour.	2	2
4. Structural Complexity	Structural complexity refers to the intricate arrangements and interactions within a system or entity that contribute to its overall behaviour and functionality.	2	2
5. Divergence	Social divergence refers to how individuals or groups develop distinct values, behaviours, and lifestyles, leading to increased differences and fragmentation within the social fabric.	2	3
6. Values and Norms	Values are the deeply held beliefs that guide individuals' behaviour and decision-making. At the same time, norms are the established standards and expectations for how individuals should act within a society or group.	2	2
7. Non-Linearity	Non-linearity refers to a relationship in which changes in input do not produce proportional changes in output, often resulting in complex, unpredictable behaviour.	3	4
8. Organisational Learning	Organizational learning is how an organization improves its practices and outcomes by acquiring, sharing, and applying knowledge and experiences.	2	2

The paper employed an iterative process of comparing codes to refine and synthesise their findings more efficiently, which is crucial for producing higher abstraction codes (Linneberg and Korsgaard, 2019). As one examines the first codes in comparison, similarities and differences are identified, which helps the researcher identify general themes and patterns. This ongoing comparison deepens the analysis and fosters a critical reflection on the fundamental concepts within each code. Researchers can create codes representing more general, abstract concepts by re-examining and re-evaluating them to gain new knowledge. This approach is known as conceptual synthesis.

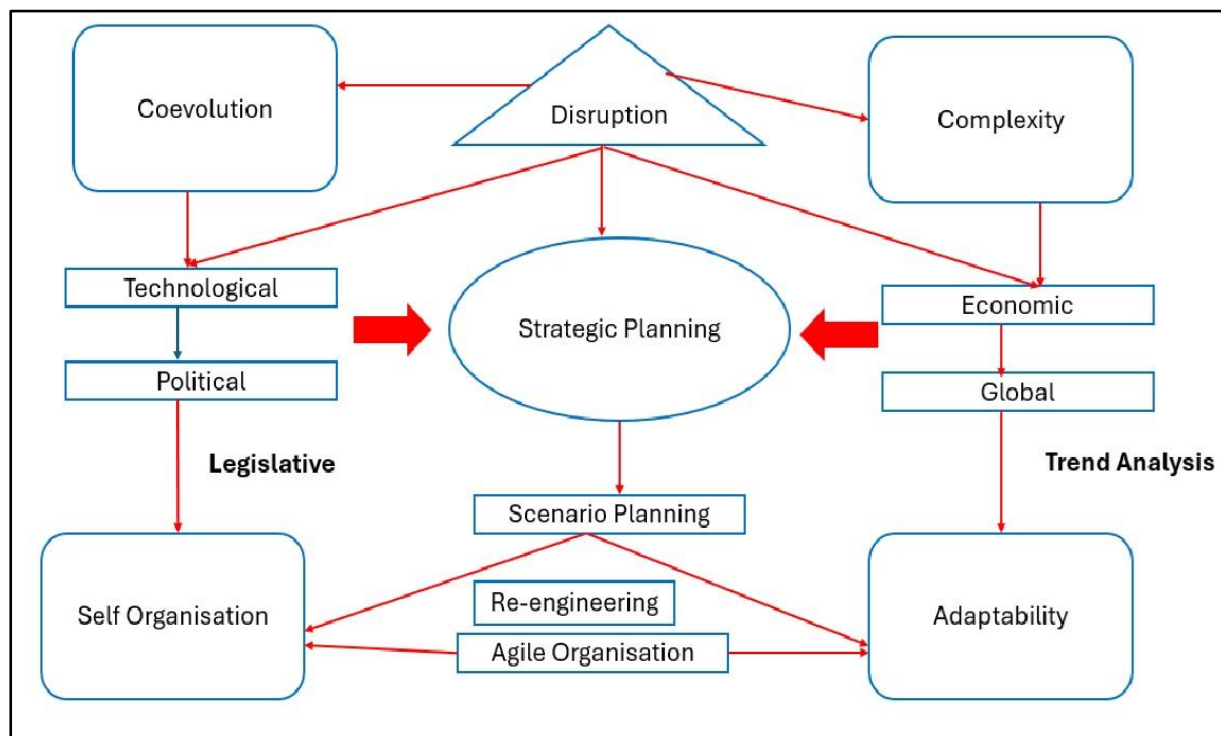
## Conclusion

The following explanations are based on an essay by Schneidewind and Augenstein (2016). The core idea is a categorization into three different perspectives in the context of transformations. The following table describes the different perspectives and the resulting positions in companies and society. The iterative process of comparing codes for all three data sets produced the following as the dominant recurrent codes:

- Complex adaptive systems
- Non- Linearity
- Co-evolution
- Self-organisation

The four identified recurrent codes deepen our understanding of strategic planning and help organisations to adapt and manage the changing interactions and emergent behaviours within these networks, as argued by Ojha, Patel and Sridharan (2020). The following examples illustrate how strategic planning works: Organisations can foresee potential outcomes and identify leverage points within non-linear dynamics by utilising strategic planning. Planning strategies that are adaptable and responsive can prevent disproportionate effects from small changes, as they help planners anticipate unexpected events with prompt results. In intricate adaptive systems (complex adaptive systems), entities evolve to accommodate changes occurring in the environment. Collaboration and feedback between different system components are promoted through strategic planning to promote co-evolution, as argued by Turner and Baker (2019b).

This interdisciplinary nature facilitates organisational adaptation and innovation in response to their surroundings. Through strategic planning, organisations can establish frameworks that promote self-organisation. Setting standards and expectations that permit unrestricted interaction between individual components creates an environment where structured patterns and behaviours can develop naturally. This enables creativity and innovation without excessive dependence on central control. The aim is to constantly adjust strategies and receive real-time feedback, data, and suggestions, guaranteeing organizations remain adaptable, as argued by Hilmerston *et al.*, (2022). By promoting learning and adaptation as core values, strategic planning contributes to developing resilience within organizations. Strategies can involve scenarios that equip organisations for different futures, enabling them to handle disruptions and capitalise on opportunities. In essence, strategic planning in complex adaptive systems consists of promoting a flexible and responsive approach that acknowledges the interdependence of different factors within an ecosystem. This allows organisations to adapt better and evolve while also allowing them to navigate uncertainty, as demonstrated in Figure 2 below.



**Figure 2: Source Authors: Strategic planning**

Complexity theory is applied to the strategic planning of dynamic organisations, with the diagram below illustrating its intricate applications. The profound implications of receptiveness and adaptability in

an ever-changing environment are expounded upon. According to this framework, organisations function on principles, such as nonlinearity, self-organisation, and coevolution, which enable them to comprehend their surroundings with greater precision. Organisations can now embrace the inherent uncertainty of their ecosystems by challenging traditional linear strategic planning models.

By recognising that their environments are dynamic, entities can develop the ability to not only endure disruptions but also transform them into opportunities for innovation and progress. In addition, a narrative analysis is conducted to critically examine the dimensions through which organisations can utilise complexity theory to improve their strategic decision-making processes. This investigation underscores the importance of fostering resilience and adaptability, which can lead to sustainable development. Organisations are prompted to reconsider their plans in light of the interdependence of different factors within their jurisdictions as they grapple with the complexity of their operational domains. This is a result of an intellectually rigorous engagement with how existence operates in organisational settings.

### Limitations and direction for future research

Complexity theory is gaining more attention in organisational studies, but it may overlook the richness of different organisational environments. This perspective is essential. These principles are the subject of profound interplay that varies significantly among other entities, considering differing dynamics within industries and cultural contexts. The variation in usage makes it challenging to generalize the findings across different settings, leading to uncertainty about the suitability of complexity theory.

Moreover, there is a significant amount of theoretical research in this field, but it is not always successful. Although it fosters innovative ideas in the abstract world, it lacks substantial empirical evidence to support its findings in modern organisational contexts. The insufficiency of empirical evidence impedes the theory's practicality and creates obstacles for leaders and practitioners who want to implement it in actual organisational settings. Additionally, complexity theory discourse often highlights critical issues, such as the inherent challenge of adapting to change within organisations. "Nevertheless, the study of such resistance is often shallow, necessitating a more nuanced exploration of organisations' different methods to tackle these issues. Even though many organisational methodologies are present, the current literature risks providing one-size-fits-all recommendations that overlook the diversity to which they are applied.

Thus, future studies must confront these constraints to reconcile the gap between experimental ideas and empirical facts. Researchers can gain insight into navigating organisational change by engaging in interdisciplinary dialogue and diversifying their methods across diverse contexts. This endeavour enhances the academic discourse and demonstrates the practical significance of complexity theory in shaping adaptive and robust organisational cultures.

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