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A Critical Analysis On The Use Of Scenario Planning As A Policy Making Tool For Resilience

Panayiota Georgiou
PhD researcher in Business Studies (Management, Employment, Organisation), Cardiff Business School, Cardiff University, UK. GeorgiouP1@cardiff.ac.uk

Stavros Pantos
PhD researcher, School of Law, University of Reading, UK. s.pantos@pgr.reading.ac.uk

Abstract

Future thinking 'allow us to anticipate dangerous trends, identify desirable futures and respond appropriately (Riedy, 2009:40). This argument seems to be even more prominent now after the global financial crisis of 2008, Covid-19, together with the rapid technological change which generates increased uncertainty and concern for the future. Based on a literature review, this feature discusses the potential contribution of scenario planning as a practical tool to understand uncertainty and test for resilience, helping policymakers design better policies. This research highlights the importance of scenario design, development and implementation as a tool for resilience testing. Recent examples on scenario application are discussed, capturing the coronavirus pandemic, climate change and sustainability, in addition to financial crises and shocks, catastrophes and cyber/technological risks. The paper adopts an interdisciplinary approach, commenting on the value and use of scenario planning from different angles in relation to resilience, presenting an overview of scenario applications by type of resilience. The focus is placed on UK policy making approaches from the 2008 global financial crisis until the coronavirus pandemic. It adopts the position that the contribution of scenario planning as a practical tool in policymaking in relation to resilience testing is a double-edged sword. This is because while there is a great value of using scenario planning to inform policymaking in the face of growing uncertainty and complexity, adopting scenario planning does not result in automatic gains. Therefore, one should be aware of the associated challenges such as different biases and issues of inclusivity and exclusivity within the process.

Introduction

Scenarios are stories on how the future might develop in specific areas of interest (Rijkens-Klomp, 2012). They are hypothetical constructs, exploring alternative pictures of the world, designed for imagining possibilities. The development of scenario planning as a practical tool reflects the shift away from deterministic forecasting models towards a broader range of futures and possibilities (Van Dorsser et al., 2018). Specifically, the role of scenario planning is to (a) identify possible solutions to policy problems in creative and interactive ways (Volkery & Ribeiro, 2009; Perez-Soba & Maas, 2015), (b) deal with increasing uncertainty and complexity that policymakers face (Bishop et al., 2007; Özkaynak & Rodríguez-Labajos, 2010) and (c), lead to better knowledge regarding the future in a specific policy area, reducing policy myopia (Özkaynak & Rodríguez-Labajos, 2010; Sreeja & Howlett, 2017). Scenario development helps policymakers to develop policies that are resilient across a range of possible futures (HM

Government, 2014). However, there are associated challenges that one must consider when designing scenarios, such as issues of inclusivity or time constraints.

Scenario Planning in Policy Making

Scenarios have become a key tool in policy formulation process as they contribute to the identification of possible solutions to policy problems by exploring the various options available (Perez-Soba & Maas, 2015). Scenario planning allows all policy options to be explored, resulting in an expansion of options for decision making. In this way, it offers a policy space to visualize, rehearse and test the acceptability of different strategies (Volkery and Ribeiro, 2009). At the same time, scenario planning helps to deal with the increasing uncertainty and complexity that policymakers face when designing a policy without resulting to the prediction of the future (Bishop et al., 2007). Similarly, it allows understanding of key uncertainties, consideration of alternative perspectives and greater resilience (Peterson et al., 2003). This is achieved by acknowledging all plausible scenarios, rather than choosing one best scenario. This enhances decision making in the face of potential challenges as more adaptive policies can be created (Van der Steen, 2017). Scenario planning thus encourages new ways of thinking about the future and links the different components and actors within a complex problem to the policy design process (Özkaynak & Rodríguez-Labajos, 2010).

Moreover, this process can lead to better knowledge regarding the future in a specific policy area which in turn can be used to reduce or even eliminate policy myopia (Özkaynak & Rodríguez-Labajos, 2010). This refers to the difficulty of seeing far enough into the future and in enough detail to be able to properly plan in the present (Sreeja and Howlett, 2017) and is often regarded as a reason of policy failure. Scenario planning thus allows for a dynamic policymaking process that is open to feedback and can help to limit the extent of policy failure (Da Costa et al., 2008).

Another valuable aspect of scenario planning lies in what can be gained from the process and the interactions of actors participating in it. A diverse and broad range of actors participating in the process is vital as it enhances its legitimacy (Volkery & Ribeiro, 2009), such as a combination of experts from different fields in government, business, academia, local actors and the civil society (Habegger, 2010). This diversity of participants, Schoemaker (1993) emphasises, can stretch peoples' thinking and challenge mental boundaries. Involving more participants provides access to more worldviews, leading to a more comprehensive map of possible and desirable futures (Riedy, 2009). Similarly, when scenario planning is performed successfully it helps conflict management between diverging societal values, resulting in finding common ground, which also composes a key essence of policymaking (Volkery & Ribeiro, 2009). However, for this to be accomplished, actors who are involved in the process require reflexivity must be aware of their own biases and be willing to listen to others (Volkery & Ribeiro, 2009). Thus, only through a reflexive mutual social learning process amongst actors, we see 'the emergence of common visions' (Habegger, 2010:373).

A final purpose of scenario planning is the ability to transform a situation into something better and less problematic. Kahane (2012) argues that sometimes people find themselves in situations that are too unacceptable, unstable or unsustainable for them to be able to adapt.

Consequently, scenario planning helps to go beyond preparing for the future towards the transformation of it. This process requires involvement from a wide range of actors in order to build a shared understanding of the system that they are part of and wish to influence and transform (Kahane, 2012). Therefore, diversity of participation is crucial as by bringing people with diverse values together to construct potential scenarios, it makes the process more rewarding. Similarly, Bourgeois et al. (2017) emphasise that a co-elaborate scenario planning approach has the potential to empower local actors at grassroots level and see future as an emancipatory and transformative process. They present a co-elaborative scenario building approach, the Participatory Prospective Analysis (PPA) in connecting the future, scenarios, empowerment of local communities and organisations via action research (Bourgeois et al., 2017). In such cases, empowerment lies in the capacity of different actors to reshape the future rather than to adapt to pre-defined futures shaped by others (Vervoort et al., 2015). Indeed, Bourgeois et al. (2017) note that this is a common problem as local communities are rarely empowered to envision better futures themselves. In such cases, participatory scenario planning can help to mobilize action and strengthen local agency in policymaking (Volkery & Ribeiro, 2009).

Despite being a widespread method for improving decision making processes however, there are many dangers, limits and challenges to adopting scenario planning. One of the strongest challenges is the issue of participation and questions of inclusivity and exclusivity (Wilkinson et al., 2013; O'Brien, 2016; Ossewaarde, 2017). Ideally, a wide variety of actors participating in a scenario planning is required, as well as actors' ability and willingness to imagine a wide range of new futures (Volkery and Ribeiro, 2009). However, this is not an easy task and deciding what possible futures are plausible or desirable often invokes fundamental questions of power (Rickards et al., 2014b). In this sense, scenario planning is limited to constructing futures which reflect the current situation with the power structure remaining the same (Ossewaarde, 2017). Consequently, there is a need to pay attention to the questions of 'whose future is being planned, by whom, for whom and to what ultimate end?' (O' Brien, 2016: 341). Another challenge for the scenario planning is that often it can be a time-consuming process. For instance, it takes time to get to know each other and develop a mutual understanding and trusting working relationship (Rickards et al., 2014b). Also, getting people to think beyond what is familiar is a challenge and takes time as many emotions are involved including fear or embarrassment (Rickards et al., 2014b).

UK Scenario Cases

This section introduces the different types of scenarios developed by policy makers in the UK from the global financial crisis of 2008 until the coronavirus pandemic of 2020. While the purpose of each scenario differs, their aim to understand future uncertainty, while testing for resilience, is similar. There are different types of scenarios developed for different uses, capturing a range of multiple types of resilience, such as financial, climate and environmental resilience. The scenarios presented are segmented into two categories: (i) strategic planning, from environmental protection to healthcare, (ii) financial sector resilience.

Perhaps the most famous scenarios are those linked to the environment and climate from the Environment Agency and the Department for Environment, Food and Rural Affairs

(DEFRA) (Environment Agency, 2002; 2014; 2019), particularly about flood and coast risk management under long-term investment scenarios. Reed et al. (2009), for example, draw possible futures for UK uplands, presenting different scenarios and their benefits. Their study adds to the analysis of scenario methods for policy evaluation regarding governments' strategy for uplands. In a different direction, numerical scenarios of the future of UK's system of cities, exploring three scenarios and their implications on the future ways of living in cities, economics and systems of governance are presented by Swain and Steenmans (2016).

Zanni et al. (2017) use scenario methods to examine the resilience of the UK transport network. Their study investigates the future resilience of the UK transport network in the face of climate change to support infrastructure planning decisions. The application of scenarios in this case aims to support policy makers to increase resilience to extreme weather in transport infrastructure strategies (Zanni et al., 2017). The future of UK rail until 2065 has also been examined using scenarios, giving an insight into rail networks and infrastructure to understand capacity, investments and stations, overall supporting the network's resilience (Bouwman & Worthington, 2015; 2016).

Scenarios have also been widely used in public health (Schreuder, 1995). The use of scenarios from health authorities to explore alternative futures for contingency and resilience planning, allowing preparation for events causing strain to the system (Schreuder, 1995). This was evident during the coronavirus pandemic with Covid-19 scenarios performed by the Scientific Advisory Group for Emergencies (SAGE) (SAGE, 2022). In relation to Covid-19, scenario planning was conducted for operational considerations and capacity of the National Healthcare System (NHS) within short, medium and long-term timeframes (SP-M-0, 2020). Examining a range of possibilities, from best to worst case scenarios for the emergence of new variants, transmission, hospitalisation etc., public health authorities and policy makers were able to test the resilience of the system and make strategic decisions to prepare for all events. Recognising the element of uncertainty of those scenarios with varying degrees of likelihood, the possible futures and plausible courses of the pandemic allow planning and preparation to reinforce the NHS, adding to its resilience (S-P-0, 2020).

In relation to financial services stress testing, there are scenarios for the UK economy generated by the Financial Policy Committee (FPC) and the Monetary Policy Committee of the Bank of England (FPC, 2021). Stress testing constitutes a core part of the bank regulatory toolkit as part of prudential regulation and supervision in measuring the resilience to adverse scenarios such as recessions, having evolved significantly following the 2008 global financial crisis (Dent et al., 2016). Severe but plausible scenarios are often prescribed for the systemic financial services to test the financial stability implications and resilience against key risks on a regular basis. The standard scenario capturing the macroeconomic outlook and economic conditions, focusing on market and credit risks, is the solvency stress test and the annual cyclical scenario (BoE, 2021a). Additional scenario examples include the Liquidity Biennial Exploratory Scenario for liquidity risks, with a material liquidity lasting 90 days preceded by a nine-month recovery period, simultaneously effecting the major UK banks and cyber stress tests for disruption to operations and data integrity implications (FPC, 2021). Here, operational resilience and operational disruption are used to test tolerances of financial services (Strange, 2020).

Scenarios: Concluding Remarks

Scenario planning helps to deal with uncertainty and complexity as it allows different futures to be envisioned, ultimately resulting in better decision making. Diverse participation is a key to scenario planning, as it can challenge and stretch people's thinking although in many cases this cannot be easily achieved. Equally important is the capacity of the scenario planning as a transforming and empowering process for different actors. Despite its value, scenario planning entails many challenges that should be acknowledged such as time constraints, questions of participation or misuses of it. Therefore, there is value in using scenario planning as a practical tool to inform policy as long as policymakers are aware of the challenges of using it and the reasons for adopting it. The use of scenario planning in policy making has been intensified in the past decade. Specifically, multiple examples of scenarios were discussed ranging from transport infrastructure, rail network and public health to financial services, demonstrating how scenario planning is used for resilience in UK policy making, to support strategic decisions and planning. The proliferation of scenarios is going to be further increased as we navigate uncertainty, anticipating more dynamic and complex scenarios to prepare for future challenges.

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