

Corporate foresight in light of the COVID-19 pandemic—The crisis as a driver?

Theresa C. Schropp¹ | Jan Oliver Schwarz¹ | Fabian Buder²

¹Bavarian Foresight-Institute, Technische Hochschule Ingolstadt, Ingolstadt, Germany

²Nuremberg Institute for Market Decisions (NIM), Nurnberg, Germany

Correspondence

Theresa C. Schropp
Email: Theresa.Schropp@thi.de

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Abstract

Our study emphasizes the evolving nature and increasing relevance of corporate foresight (CF) in a volatile, uncertain, complex, and ambiguous world. This research, therefore, contributes to the foresight literature, concerned with the antecedents and motivators of CF as it investigates how external events that are characterized by great uncertainty influence the CF practice of large companies. On the example of the COVID-19 pandemic and based on a study of 25 interviews, this empirical research reveals that such events provoke an intensified engagement with the future within companies as implied by a greater resource commitment and interest in foresight. Thereby, CF and especially the development of multiple future scenarios, are considered helpful in countering uncertainty and facilitating responsiveness.

KEYWORDS

corporate foresight, COVID-19, interview study, pandemic, qualitative content analysis

1 | INTRODUCTION

Corporate foresight (CF) addresses questions about how organizations can prepare for an increasingly unpredictable future while remaining competitive (e.g., Liebl & Schwarz, 2010; Meyer et al., 2022). In light of recent crises, such as the COVID-19 pandemic or the Ukraine war, CF might be gaining relevance. In the middle of the COVID-19 pandemic, Scoblic (2020) argued in the *Harvard Business Review* for the relevance of organizations developing foresight in the face of crisis. Schoemaker and Day (2021, p. 2) have stated that vigilant organizations, which are sophisticated in anticipating and responding to changes in the business environment, “avoid the pitfalls of wishful thinking, willful blindness, and short-term myopia,” and were better prepared to deal with the COVID-19 crises. This finding is supported by a survey of Buder (2021) who found evidence that

companies with more mature foresight activities felt less affected by the COVID-19 pandemic.

Regarding the benefits of foresight activities (e.g., Rohrbeck & Kum, 2018; Rohrbeck & Schwarz, 2013), it seems reasonable to assume that companies would intensify their CF activities in times of crisis. In addition, we find numerous examples of public entities developing scenarios in the COVID-19 pandemic (e.g., European Commission, 2020). Research on changes in the CF activities of companies during the pandemic, however, is scarce. To answer the research question of whether more or different CF activities can be observed in organizations in the context of the COVID-19 pandemic, we conducted 25 qualitative interviews with practitioners from the United States and European multinational corporations and performed a qualitative interview study.

The paper is structured as follows. We introduce CF and its development in the context of crises. Thereafter, we outline our

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research methodology and discuss the results of our interview study. To conclude, we present implications and areas for future research.

2 | THEORETICAL BACKGROUND

2.1 | CF

Research on foresight is increasing (Rohrbeck et al., 2015). The vocabulary in the literature (e.g., strategic foresight, managerial foresight, CF), emphasizing the different aspects of decision-making that foresight is helpful with (Iden et al., 2017). We use the term *corporate foresight*, as the focus of our research is on companies, and apply the definition suggested by Rohrbeck et al. (2015):

Corporate foresight is identifying, observing and interpreting factors that induce change, determining possible organization-specific implications, and triggering appropriate organizational responses. Corporate foresight involves multiple stakeholders and creates value through providing access to critical resources ahead of competition, preparing the organization for change, and permitting the organization to steer proactively towards a desired future. (p.2.)

CF is hence considered an activity conducted by a company with regard to its decision-making (Iden et al., 2017). Ideally, companies perform perceiving, prospecting, and probing activities to react early and appropriately to detected signals (Rohrbeck & Kum, 2018).

2.2 | Uncertainty

Carrying out CF is viewed as particularly relevant in the context of uncertainty. However, various conceptualizations of *uncertainty* exist, emphasizing different features of a situation characterized by uncertainty. According to Tapinos et al. (2023), the absence of adequate information causes uncertainty. The dynamism and complexity of a highly globalized world are further dimensions of uncertainty, as they make it more difficult to comprehend accurately and respond properly to detected changes (Vecchiato & Roveda, 2010).

In this study, we refer to Milliken's (1987) conceptualization of uncertainty, according to which three types of uncertainty can be distinguished: *state*, *effect*, and *response*. Following her conceptualization, state uncertainty describes a situation in which individuals experience their environment or its characteristics as unpredictable. In contrast, effect uncertainty refers to an individual's inability to foresee the effects of environmental developments on the company the individual is working for (Milliken, 1987). The last type of uncertainty, response uncertainty, describes a state of affairs in which an individual is not knowledgeable of potential response actions or their likely consequences (Milliken, 1987).

In our opinion, the COVID-19 pandemic was characterized by all three types of uncertainty. Individuals, for instance, did not know what decisions their governments would make, the impact of these decisions on their business (model) or that of their partners, and how they should best respond to these implications.

2.3 | CF during crises

For many organizations, engaging with the future is deemed irrelevant until "an opportunity or threat crashes into the organization" (Vecchiato, 2015, p. 25). In view of an increasingly volatile, uncertain, complex, and ambiguous (VUCA) environment, managers lose confidence in the effectiveness of planning (Bennett & Lemoine, 2014), doomsdays become more probable (Fergnani, 2022), and individuals presumably approach the future differently (Jahel et al., 2021).

The COVID-19 pandemic had massive consequences for countries, societies, companies, and individuals worldwide. Due to its characteristics and effects, it has frequently been labeled a 'black swan' (e.g., Mishra, 2020; Tapinos et al., 2023). Taleb (2016) coined the term to describe an event that is highly unlikely but that has an enormous impact. The extent to which the pandemic was a black swan is beyond the scope of this article. It should be noted, however, that the possibility of a 'killer virus' had been mentioned as early as 2011 as part of a European Commission project and the resulting policy alerts (Miles et al., 2011). Schoemaker and Day (2021) classify the COVID-19 pandemic as a 'predictable surprise': an event that did not come without early warnings and thus would not have been impossible to anticipate (Watkins & Bazerman, 2003). Regardless of the conceptualization applied, it can be concluded that the COVID-19 pandemic was unparalleled in its scope and implications. These kinds of rare events that one has not experienced yet, increase uncertainty (Starbuck, 2009) and are likely to prompt (strategy) reactions as exemplified in the work of Tapinos et al. (2023).

A likely strategic reaction is an increase in the foresight activities conducted by companies, as related practices (e.g., trend scanning and scenario planning) facilitate anticipation and adaptation (Marinković et al., 2022; Meyer et al., 2022). Thereby, CF does not aim for an exact prediction of the future but rather for a state of future preparedness (Vecchiato, 2015), an enhanced reactivity and responsiveness (Marinković et al., 2022). Companies that develop foresight are hence considered better prepared for change and "steer proactively towards a desired future" (Rohrbeck et al., 2015, p. 2). Accordingly, conducting CF facilitates the achievement of a future competitive advantage (Fergnani, 2022; Rohrbeck et al., 2015).

Indeed, a study conducted on the value contribution of CF found that it provides a long-term performance advantage for *vigilant organizations*: firms that practice CF to an extent that suits their environmental complexity and volatility (Rohrbeck & Kum, 2018). Organizations that conduct foresight are thus considered more vigilant and responsive to change (Schoemaker & Day, 2020) as they are less vulnerable to falling into the trap of willful blindness or

wishful thinking (Schoemaker & Day, 2021), organizational phenomena that can be observed as reactions to rare events and great uncertainty (Starbuck, 2009). It can, therefore, be assumed that companies expand their foresight activities to increase their adaptability during COVID-19, a time of a heightened perceived degree of uncertainty and risk (Tiberius et al., 2020).

Marinković et al.'s (2022) literature review supports the assumption that foresight is gaining momentum; their review shows an increase in the number of articles on foresight in the aftermath of times characterized by great discontinuity, complexity, and turbulence (e.g., the financial crises of 2008/2009), as well as a general rise in publications on CF since 2010. Marinković et al. (2022) conclude that foresight is now attracting more attention from researchers and practitioners. A study conducted by Cairns and Wright (2020) confirms that a mass number of scenarios of debatable quality has been developed by consultancies in response to the COVID-19 pandemic (Cairns & Wright, 2020; Crawford & Wright, 2022). Besides these findings, the tangible effects of the COVID-19 pandemic on the foresight activities conducted by and within companies remains largely under investigated.

3 | METHODOLOGY

To gain in-depth insights into current CF practice and to better understand how COVID-19 has affected those practices, a qualitative interview study was conducted to investigate whether and to what extent the pandemic has affected companies' foresight practices.

3.1 | Sample

Twenty-five interviews were conducted, one of which was used to pretest the guideline. Two interviews were excluded from the analysis, due to the interviewees' unsecured state of knowledge. One of these interviewees (interviewee 18) changed employers during the pandemic and claimed to be incapable of providing insights on changes. The statements of the other interviewee (interviewee 17) were excluded because they were off topic and unrelated to CF. This resulted in a sample of 23 interviews.

The sample consisted of foresight specialists and decision-makers in marketing, product development, innovation management, or business development. All interviewees were employed by a company listed on the Forbes Global 2000 list. Company representatives were thus considered foresight specialists when they are senior management-level employees with responsibility for the company's foresight work and/or job titles like *Corporate Foresight Specialist*, *SVP Strategic Foresight*, *Project Manager Foresight*, or *Head Strategic Insights*.

To investigate companies characterized by long- and short-term-oriented product life cycles and innovation cycles, the study focused on four industry sectors: (1) finance and insurance (30%);

(2) automobile (22%); (3) retail (22%); and (4) food and agriculture (26%). The sample was limited to companies headquartered in the United States (43.5%) or Europe (56.5%); the latter included companies from the United Kingdom and Switzerland. It was assumed that companies listed in the Forbes Global 2000 list engaged in some kind of foresight. Furthermore, and due to the nature of the businesses, the companies were challenged by and/or affected to varying degrees by the COVID-19 pandemic. The resulting diversity allows for a broader insight into the effects of the pandemic on Western companies and their approach to the future. Table A1 presents an overview of the sample.

A prescreening questionnaire was administered to ensure that all companies and interviewees met the sampling requirements (e.g., foresight in place) and could be considered knowledgeable of the topic. We hence apply the knowledge-sociological conceptualization of an expert as suggested by Kruse (2015, p. 174), whereby an individual can be considered an expert due to his/her knowledge of firm-specific processes and conditions. Consequently, the interviewees were not necessarily considered experts in the field of foresight.

3.2 | Interview procedure

With the interview study, we explored the effects of events, characterized by heightened uncertainty, like the COVID-19 pandemic on the CF practice of companies. We hence conducted explorative interviews. In an explorative interview, the interviewer does not have to be an expert on the research topic but rather takes on the role of an attentive listener (Kruse, 2015). Consequently, it was possible to commission an external market research institute to conduct semistructured telephone interviews in November and December 2022, after most countries had declared the pandemic over.

To facilitate a flexible interview execution while ensuring consistent data collection, the authors developed a semistructured interview guideline (Kruse, 2015). The guideline included eight questions dealing either with the recent CF approach (e.g., "How are corporate or strategic foresight activities organized in your company?") and the integration of related insights into decision-making (e.g., "How are insights from foresight activities delivered to decision makers and people working on, for example, new product developments or strategic projects?") or with CF in view of the COVID-19 pandemic (e.g., "In comparison to before 2020, has the leadership engagement and participation in foresight changed?"). Some questions encouraged participants to contrast CF practices pre- and post-COVID-19 and, based on their own perceptions, to reflect on possible changes. Furthermore, the first interview served as a pretest. As the guideline, however, was not modified afterward, this interview and the related findings are considered here as well. The interviews took between 28 and 38 min. All interviews were recorded and transcribed afterward.

3.3 | Data analysis

A qualitative interview analysis was conducted using the software MAXQDA, following Bohnsack's documentary method as described by Kruse (2015, pp. 444–451).

In addition, we applied a mixture of a priori and text-based coding (Kuckartz, 2018). In this regard, we defined top codes a priori, based on the interview guideline, and refined the coding scheme by adding codes and subcodes during the coding process. A total of seven codes were specified, six of which pertain to tangible changes in CF during the COVID-19 pandemic. Table A2 provides an overview of the coding scheme applied in this study. As the essence of the documentary method is to identify patterns and to derive propositions, we refrain from doing a case-by-case examination. Instead, we extracted cross-classified tables from MAXQDA, depicting the text passages assigned to the different codes. The statements of the different interviewees which were assigned to the same codes were contrasted later, to detect possible parallels and variations in the CF practices of the represented companies in light of the pandemic. The verbal expressions of the interviewees reveal patterns from which propositions can be derived.

4 | RESULTS

In general, our interview study confirms the statements of researchers (e.g., Fergnani, 2019; Iden et al., 2017; Marinković et al., 2022), that CF lacks clear conceptualization. In this respect, the interviewees' understandings and definitions of CF varied widely. While some do not know what foresight is (e.g., "I don't know what foresight is." (Interviewee 19, p. 3) or "When I think of foresight, I'm thinking mostly of trends in the marketplace" (Interviewee 23, p. 3), others can provide comprehensive definitions of CF, as exemplified by the following statement:

That's the foresight mission, to intercept, to understand how the organization cannot only react, but actually proactively move towards the direction the world is taking. And also suggest to the management and to decision-makers concrete steps on how to move in that direction. (Interviewee 12, p. 6)

These findings are backed up by passages from the interviews. According to which interviewees perceive or define foresight as a future-looking activity that facilitates a more proactive approach toward the future and still is not a crystal ball that perfectly predicts how the future might unfold.

Furthermore, the qualitative analysis of the interviews reveals that foresight is often equated with forecasting: quantitative simulations. In this regard, approximately one-third of the 23 interviewees frequently mentioned that driving forecasts is one of the main CF tasks. Although forecasting is and has traditionally been a central foresight activity (Marinković et al., 2022; Rohrbeck et al., 2015), researchers consider foresight broader, more holistic and also of a qualitative in nature (Marinković et al., 2022).

4.1 | Attention on future and foresight in context of the COVID-19 pandemic

Our interviews aimed at gaining insights into the attention paid to CF and the future in the context of recent crises. In this regard, the interviewees were asked about any changes they had perceived in the way the company and its members think about foresight or the future. Fourteen of the interviewees reported a perceived change in their corporate's perspective on foresight or the future. They described this change in different ways and were not always specific. It is, however, still possible to draw conclusions from their words, for instance, from more frequent consultations with people in charge of foresight. In this regard, a greater need for frequently updated insights (c.f. Interviewees 6 and 9) and the benefit of considering alternative perspectives (c.f. Interviewee 6) are expressed. Other interviewees state that the relevance of foresight has increased as people recognize that the future is not a linear replication of the past (c.f., Interviewees 4 and 14). In fact, in total 12 interviewees explicitly state that CF as well as the engagement with the future, are considered more relevant within their company, as of November/December 2022. In this regard, several interviewees, for instance, report a greater appreciation of CF and relate this to the value depicted from looking at the future and considering uncertainty (cf. Interviewees 5, 11, 12, and 20). This perception is summarized by the statement of Interviewee 12, who said

what changed was the appreciation of the rest of the organization. A new awareness that foresight is key. It was key also before, but now, it's very, very crucial. It's not an add-on ... COVID gave us a certain amount of uncertainty and people and management were asking for answers about the future. By design, we're human beings and we are clueless about what's going on in the future, but in uncertain times, you turn over to people that can give you a little bit of context and understanding of what's next. (p. 6)

Furthermore, the future is perceived as of different interest by other interviewees because the world is increasingly dynamic with new challenges posed to the business. These dynamics do not necessarily contribute to a greater attention on CF or the future in general, but sometimes rather to a resignation, as stated by Interviewee 16 and Interviewee 23. According to them, the COVID-19 pandemic and also more recent crises (e.g., Ukraine war) have led to a certain "fatigue" among human beings (c.f. Interviewee 16, p) or have shown that predictions do not hold true anyways, making foresight worthless to the company (c.f. Interviewee 23).

Although it is difficult to draw linear conclusions, between the COVID-19 pandemic and changes in corporates' perception of CF or the future, it can be assumed that the pandemic is one relevant trigger. Not least because the interviewees were explicitly asked to identify the changes that they have perceived due to the COVID-19 pandemic. Interviewee 13 supports this assumption:

... obviously, the conflicts after COVID also added this sense of urgency about the future, about the foresight. Again, the war between Russia and Ukraine is a good example. I would say all these kind [sic] of things made our senses much more sensitive to the future. While in the past, we could meet maybe every 6 months to discuss about the future, now, we are discussing quarterly. We feel that every quarter there is something new or something different, or inflation or workforce challenges that could make us decide or change the decisions for the future. (p. 6)

We therefore derive the first proposition: Great uncertainty like the COVID-19 pandemic increase companies' awareness for the helpfulness of CF and related insights. Leading to an increase of foresight activities and an intensified consideration of the generated findings.

4.2 | CF approach and set-up after the COVID-19 pandemic

The qualitative analysis of the interviews consequently indicates that CF was differently approached at the end of 2022 as compared to the time before 2020. The interviews further imply that this change, at least partially, is triggered by the COVID-19 pandemic and the Russian war in the Ukraine. Modifications in the CF practice are

described regarding objectives of CF, leadership, committed and utilized resources, applied methods and approach, as well as time horizons, as outlined and described hereafter. Figure 1 visualizes the main findings.

4.2.1 | Objectives

Nineteen interviewees described adapted objectives of foresight, often in combination with a greater acceptance of uncertainty in decision-making. In this regard, the interview participants refer back to the new degree of uncertainty they have experienced during the pandemic, which in turn increased the uncertainty regarding the future. In several companies, CF should therefore help with dealing, planning, or preparing for the unknown (cf. Interviewees 3, 4, 5, 12, 13, 14, 16, 22, and 25), with mitigating risks (cf. Interviewees 3, 15, and 25), or with increasing responsiveness, proactiveness, agility or adaptability (cf. Interviewees 2, 3, 6, 8, 11, 12, 13, 16, 20, and 24).

A strong focus is ascertained on insights on the near future (c.f. Interviewees 3, 4, 7, 14, and 16). Often with regard to changes in consumer or customer behavior and preferences. For some of the companies, CF activities hence served as troubleshooting aid during the pandemic.

At the same time, our findings indicate that individuals become more receptive for CF when the uncertainty of the future unfolds. We therefore propose, when confronted with great uncertainty, foresight becomes increasingly helpful in dealing with uncertainties

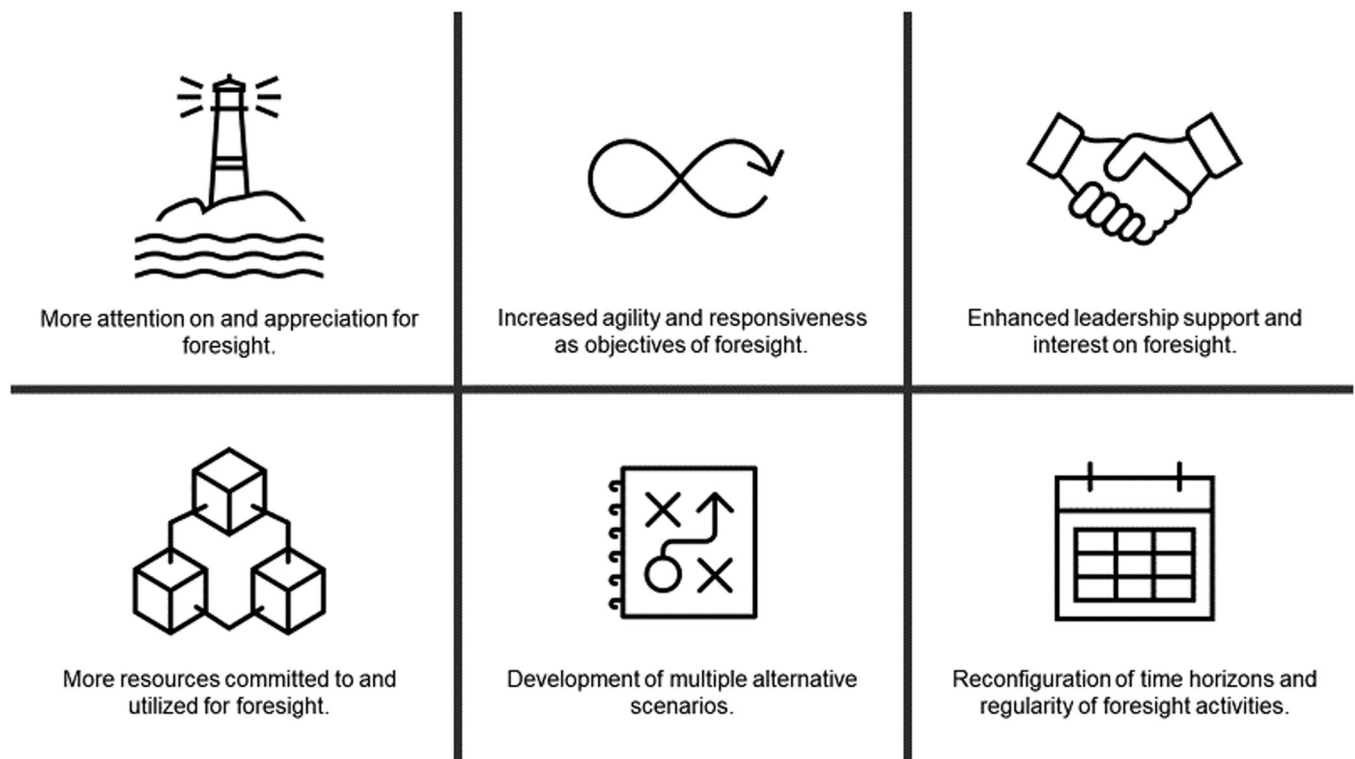


FIGURE 1 Overview of changes in corporate foresight.

of the near future and the value contributed by CF can be revealed at short notice, if soft factors, such as creating security in decision-making, are considered in addition to performance metrics.

4.2.2 | Leadership

Scientific research on foresight and in particular on scenario planning, frequently points out the importance of leaders' attention (Schoemaker, 2019) and stakeholders' active participation in related activities (Bood & Postma, 1997; Rohrbeck et al., 2015). According to the same authors, participating in CF contributes to a better understanding of the generated insights and more intensive integration of the same in decision-making. For this reason, the interviewer asked specifically whether a change has been perceived regarding leaders' engagement in CF activities or support of the same.

Of the 23 interviewees, 15 indicate that the leadership engagement and/or interest has indeed risen, since the beginning of 2020. Leaders' commitment is highly connected to the topic (and code) of *attention*. The latter, however, is in this study related to the company's general attention on CF, not to the engagement or interest of leaders. The interview statements reveal that leaders' increased commitment to CF manifests itself in different ways. While most of the interviewees explicate how the leadership engagement has changed, a few answered with a simple yes or no. Only Interviewees 2 and 14 describe a concrete participation of leaders in foresight activities. In Interviewee 14's company, for instance, leaders take a more active role in scanning for changes and insights. Other interviewees report on a more general interest of leaders in foresight or the future, and related insights. Accordingly, leaders, for instance, consider CF less a "checkbox activity" (c.f. Interviewee 5, p. 6) but more an integral part of meetings (cf. Interviews 6, 10, 11, and 16) and/or decision-making practices (cf. Interviews 13, 14, and 15).

Not all interviewees, however, reported greater leadership engagement. Some of the interviewees did not mention the leadership pillar of CF at all (cf. interview 1, 20, 22, and 24). Others stated that leadership support has remained unchanged, either at the same high pre-COVID level (cf. Interviews 7 and 8) or at a lower level (cf. Interview 23). The statement of Interviewee 8, however, must be modified, as the interviewee described a more proactive engagement of leaders in CF and a greater interest in the underlying data.

A few interviewees revealed different leadership approaches: "... leaders have stopped deciding themselves ... There's a lot of collective wisdom, ... because you never know what you're missing out if you're deciding yourself." (Interviewee 5, p. 7). Another interviewee describes a situation in which the firm has actively sought more active participation of leaders to keep the corporate's future perspective more optimistic (c.f. Interviewee 13).

To conclude, leaders seem to have often adapted their individual foresight approach as they engage more actively with the future. Only a small minority of leaders participate in CF activities; most are passive recipients. At the same time, the interviewees welcomed and

appreciated their leaders' greater interest and commitment. We hence propose that leaders' awareness of the helpfulness of CF for decision-making and the management of uncertainty is key to CF implementation and integration in decision-making.

4.2.3 | Resources

This section outlines how the resources committed to CF activities have been adapted in view of the COVID-19 pandemic, an insight gained by asking interviewees for changes in the way their company conducts foresight. The kind and type of resources subsumed under the code *resources* were not predefined. The code marks interview passages that deal with changes in financial, human, or information resources, and more. It is not surprising that different kinds of resources and the commitment to allocate or more of them are often interrelated. One major adaptation can be perceived with regard to information sources and to the types of information that are now considered. While some companies resort to consumers, experts (e.g., medical staff), employees, or external consultants (e.g., Interviewees 3, 13, 15, and 19), others fall back on a greater variety of databases (e.g., Interviewees 3, 5, 8, 9, 14, and 25). The latter often coincided with staffing (cf. Interviewees 4, 8, 9, 12, 14, and 22) or with a more intensive application of software solutions to drive automated analysis and forecasts (c.f., Interviewees 6, 8, 11, 13, 19, and 25). Regarding staffing, Interviewee 4 (pp. 5–6), for instance, reported that "... COVID is the reason why we have a foresight team, now" and that this clear responsibility and structure allow them to streamline foresight activities. In addition, interviewees reported an increase in the share of budget allocated to CF (cf. Interviewees 3, 6, 8, 13, and 19).

At the same time, other interviewees stated that the resources committed to foresight have not changed all (c.f. Interviewee 16), increased during the pandemic but have since returned to pre-COVID levels (c.f. Interviewee 7), or have decreased (c.f. Interviewee 24). The latter is justified by citing the present economic downturn (c.f. Interviewee 21) or by arguing that it is less relevant to take a long-term view and to conduct foresight in an ever-changing world where predictions rarely materialize (c.f. Interviewee 23).

The findings indicate that the represented companies were more committed to CF in view of uncertainty, as mirrored in their resource allocation. We hence propose that events characterized by high uncertainty induce a greater resource commitment and lead to the utilization of a variety of information sources.

4.2.4 | Applied methods and CF approach

With the COVID-19 pandemic, companies and their employees have become painfully aware of the uncertainty that surrounds them. According to some interviewees, this experience has triggered a reconfiguration of the foresight approach that they have traditionally applied. The concrete alteration differs among the companies. A few

interviewees reported that their CF activities gained depth (cf. Interviewees 14 and 15) or that their approach to CF became more structured (c.f. Interviewees 3, 4, and 21). Additionally, a more dynamic, faster CF approach is described that provides fresh insights for decision-making and facilitates a quick response to changes (c.f. Interviewees 6, 13, 14, and 25).

The greatest change can be perceived with regard to method application and sophistication. While Interviewee 1 reported on more contingency planning and Interviewee 8 of war gaming, several companies adapted their scenario planning. In this regard, seven of the 23 interviewees stated that more (less optimistic or worst-case) scenarios have been developed and laid out since COVID (c.f. Interviewees 6, 9, 11, 12, 15, 16, and 25) to be better prepared if unexpected things happen. Interviewees 6 and 15 explicitly mentioned forecasting. Although forecasting alone might not be sufficient for dealing with the long term, incorporating multiple alternative quantitative scenarios already mirrors a different mindset and fosters a greater ability to deal with a complex and uncertain environment. We therefore propose that multiple scenarios are considered helpful in increasing companies' perceived responsiveness in light of crises.

4.2.5 | Time horizons

Foresight is considered an activity that is oriented toward the long term and that applies a time horizon of 5–50 years into the future (Fergnani, 2022). Consequently, the value contribution of CF can be rarely observed in the short term (Fergnani, 2022; Rohrbeck & Kum, 2018). Nevertheless, when asked for recent changes in their CF approach, Interviewees 5, 7, and 14 claimed that their organization had recently shifted to a short-term focus, recognizing that the long-term future is hard to predict and will most probably unfold differently than expected.

Gone are those days where you can put three-year plans based on some foresight that you collect. Things have become shorter cycles. The demand is doing 3, 6 months, one-year kind of initiatives. How do we take foresights inputs [sic] into a smaller cycle initiative. That's number one, that's one big learning and this is one big adjustment from my perspective. (Interviewee 5, p. 6)

Interviewees 1 and 4 mentioned that their firms put more emphasis on the long-term future now, as they are investing in a more centralized foresight set up. The other participants did not report any change in the time horizon applied, but often on a change in frequency or regularity. In 11 of the 23 companies represented in the interview study (c.f. Interviewees 4, 5, 6, 7, 9, 10, 11, 13, 15, 19, and 25), CF is a more continuous activity now, where the insights generated are visited more frequently. It thus seems as if CF has become a more regular and continuous task since the outbreak of the

COVID-19 pandemic, whereby the assumptions made and scenarios developed are regularly adjusted. These developments are illustrated and summarized by Interviewee 5:

The foresight processed used to be a regimented yearly/quarterly process. Yearly, set it up, and then quarterly, review it. That was the frequency. After COVID hit us, we have started talking about it more frequently. Foresight is pretty much discussed in every monthly meetings [sic], strategic meetings that are monthly now ... That's the big change. The second big change is the foresight process itself. The time horizon of looking at foresight has drastically changed from a long window of three to five years to one to three years. The focus is a lot on the year that is coming ahead of us, instead of talking about long-term stuff. That also has changed. (p. 6)

This research shows that CF becomes more short-term when crises emerge and when they demand the attention of decision makers. We hence propose that future-related activities should not be labeled CF only if they show a long-term orientation.

5 | DISCUSSION

The objective of this research study was to explore the effects of crises and associated uncertainties on the CF practice of large companies. Emanating from existing studies that studied the evolution of CF literature during the last decades (e.g., Marinković et al., 2022), we assumed that events that are accompanied by uncertainty trigger an increased engagement with the future and hence also with CF. With our interview study we provide empirical insights into the modification of CF that was undertaken by companies during the COVID-19 pandemic. With its findings, this study offers valuable insights for both researchers and practitioners interested in understanding and leveraging CF to navigate uncertainty.

The interviews indicate that foresight is often insufficiently understood and that the term '*foresight*' is still vague, as even those practitioners that were expected to work with insights delivered by CF projects were often unfamiliar with the notion. In other words, the methodological diversity of foresight and its potential often remain unrecognized, which is why the advantages of an elaborated foresight practice are frequently not exploited. According to the interviewees, it appears as if foresight is often limited to quantitative forecasts and hence prone to volatility, short-term-focused, and merely integrated into strategic decision-making. In this regard, it seems as if the benefits of nonquantitative approaches of foresight (e.g., scenario planning or war gaming) are widely unknown and positive examples, such as the Royal Dutch-Shell case, outdated. The foresight literature should, therefore, strive for a more consistent and comprehensive conceptualization that can be easily transferred into

practice and for more recent case studies that can serve as a value proof for practitioners and that emphasize how CF can help firms in gaining a long-term competitive advantage. Further case study research that reveals the value contribution of foresight methods, besides forecasting, on hard factors (i.e., performance indicators) and soft factors (i.e., individual comfortableness with uncertainty) is therefore recommended. In addition, researchers should address the question of which foresight tools should be applied under which conditions of uncertainty.

The interviewees frequently stated that CF, often in the form of forecasts, has helped their company imagine alternative futures, understand the drivers of change and their implications, and deal with uncertainty. In this regard, companies have laid out multiple scenarios within their practice. Scenario planning, in the form of qualitative scenarios that are often narrative and illustrative, is considered helpful in stretching individuals' minds and breaking up mental models (e.g., Bood & Postma, 1997; Chermack, 2004; Vecchiato et al., 2020). Forecasting is often subject to criticism. Researchers state that forecasting results in a single scenario which represents the most probable and desired future and that is often based on historical data (Burt, 2023; Jashari et al., 2022). Tapinos and Pyper (2018, p. 294) state that "a fundamental difference between foresight and forecasting is that forecasting develops a path into the future via forecasted points, while foresight examines the implications for the present from short-, medium- and/or long-term uncertainties." The danger of the interviewees' misconceptions is that the expectations of CF are not met, and CF activities might be dismissed. In this study, however, interviewees report a more dynamic approach to forecasting, in which multiple scenarios are laid out and forecasts are frequently revisited and updated. It thus can be concluded that even if qualitative scenarios, due to their narrative form, may reach individuals in a different way, quantitative forecasts cannot be regarded as inferior across the board. In line with Jashari et al. (2022), we, therefore, suggest investigating how qualitative scenarios (rooted in strategic management) and quantitative scenarios (rooted in operational management) can be combined to generate synergies.

During the COVID-19 pandemic, companies recognized that foresight deliverables must be frequently updated and that multiple scenarios should be taken into consideration. Consequently, this study implies that companies can learn from the pandemic and integrate these learnings to set up a CF practice that will help them to be better prepared for multiple futures. This preparedness might be less measurable by performance indicators but more by the degree to which individual leaders feel comfortable with the uncertainty that surrounds their decision-making. In this respect, leaders' interest in foresight and the appreciation of insights on the future are essential to corporates' commitment to the same (Schoemaker & Day, 2020). A leader that considers foresight as integral to decision-making and as valuable tends to commit more resources (e.g., financial, human, time) to foresight. Ensuring leadership support and ideally also leadership participation in CF is thus fundamental for fostering a greater attention and a proactive approach to the future.

Literature suggests integrating CF as a continuous practice (Peter & Jarratt, 2015). It is recommended to preserve the changes caused by the COVID-19 pandemic (e.g., more continuity and structure). In addition, interviewees stated that foresight managers occasionally take the role of troubleshooters, providing immediate guidance for decision-making when the future is perceived as highly uncertain. It is thus suggested to rethink the role and responsibility of foresight in a company. At the same time, there is no "one-size-fits-all" approach to foresight. For that reason, companies should define and implement a foresight approach that suits the environmental complexity and volatility it is confronted with to ensure its long-term success (Rohrbeck & Kum, 2018; Vecchiato & Roveda, 2010). With regard to this implication and even though different industries understand the long-term differently (Vecchiato & Roveda, 2010), companies put themselves in danger if they focus on too short time horizons and neglect the long-term future in the event that they experience a high degree of environmental dynamism and perceive the future as elusive. The results of our research, therefore, suggest that practitioners ought to benchmark against other companies in their industry, asking questions such as "What time horizon seems applicable to address the future?" or "How can foresight be best implemented to meet the requirements of the business environment and to be future prepared?" For practitioners, this study underscores the importance of CF in managing uncertainty and preparing for the future. It suggests that companies should regularly review their CF activities and adapt them to changes in the business environment to strengthen their responsiveness.

6 | CONCLUSION

The aim of this research was to provide insights into the influence of events, such as crises characterized by great uncertainty, on companies' CF practices. It was based on the assumption that crises generate interest in and commitment to foresight. This assumption is displayed by the words of Interviewee 20 (p. 10) who said that "in a world where there's more change, more opportunity, more insecurity, in the mindsets of decision-makers, then you get a better hearing." Our study partially supports this assumption and emphasizes the evolving nature and increasing relevance of CF in a VUCA world.

Our empirical investigation is limited to 23 interviews and to large companies which of course complicates generalizations. Hence further research is needed to understand how small and medium-sized enterprises approach CF and how this approach might have changed in light of the COVID-19 pandemic. This would provide a more comprehensive understanding of the influence of crises on CF activities across different contexts. Further, it would be of interest to understand how sustainable the changes in CF activities have been by going back to the interviewed organizations and conducting longitudinal research.

The application of a prescreening questionnaire ensured that all companies represented in the survey have a CF in place, and that all interviewees are either responsible for foresight work or

recipients of foresight. Interviewing foresight specialists can be a limitation, as they probably consider CF to be more relevant than their role. Nevertheless, they are best informed about the foresight activities conducted, and as they interact with managers and decision makers, they personally observe how leaders' attitudes and interest might have changed in the face of the pandemic. At the same time, neither the commissioned interviewer nor the interviewee was provided with a definition of foresight beforehand. While this was a conscious decision to avoid any bias in the data collection, it resulted in a lack of conceptual clarity about CF as the terms 'foresight' and 'forecasting' are frequently used interchangeably. This could be considered a limitation of this research. As forecasting, however, is one popular foresight tool, this conclusion would be incorrect. In this regard, the criterion of *objectivity* demands the researcher to analyze the interviews without a personal valuation. Consequently, it is an additional, although unintended finding, that many companies still rely very much on quantitative scenarios (i.e., forecasts).

This research contributes to foresight literature concerned with the antecedents and motivators of CF as it investigates how external events characterized by great uncertainty influence the CF practice of large companies. In light of the COVID-19 pandemic, this empirical research reveals that such events provoke companies to intensify their engagement with foresight. Thereby, CF and especially the development of multiple future scenarios, is considered helpful in dealing with uncertainty and facilitating responsiveness.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX A

TABLE A1 Overview of the sample.

Interviewee	Geographical location	Industry sector
Interviewee 1	The United States	Finance & Insurance
Interviewee 2	The United States	Finance & Insurance
Interviewee 3	The United States	Food & Agriculture
Interviewee 4	The United States	Food & Agriculture
Interviewee 5	The United States	Retail
Interviewee 6	Europe	Food & Agriculture
Interviewee 7	Europe	Food & Agriculture
Interviewee 8	Europe	Automotive
Interviewee 9	The United States	Food & Agriculture
Interviewee 10	The United States	Food & Agriculture
Interviewee 11	Europe	Finance & Insurance
Interviewee 12	Europe	Finance & Insurance
Interviewee 13	Europe	Automotive
Interviewee 14	Europe	Retail
Interviewee 15	Europe	Finance & Insurance
Interviewee 16	Europe	Retail
Interviewee 17 ^a	Europe	Retail
Interviewee 18 ^a	Europe	Retail
Interviewee 19	Europe	Retail
Interviewee 20	Europe	Finance & Insurance
Interviewee 21	Europe	Finance & Insurance
Interviewee 22	Europe	Automotive
Interviewee 23	The United States	Automotive
Interviewee 24	The United States	Retail
Interviewee 25	The United States	Automotive

^aExcluded from the sample due to unsecured state of knowledge.

TABLE A2 Coding scheme.

Category	Code	Description	Application	Further application	Exclusion	Example
Changes in corporate's approach to the future	Objectives	Change in the objectives of CF in the context of the COVID-19 pandemic.	The code is applied when the interviewer has previously asked whether the company's view on foresight or understanding of future developments has changed as compared to before the pandemic.	The code is further assigned when it becomes apparent that the interviewee is reporting on the objectives of CF activities pursued since the outbreak of the COVID-19 pandemic (e.g., which decisions foresight informs).	The code is not assigned if the interviewee is not referring to the pandemic or if he/she is speaking generally of the importance of foresight.	"... decision process got started building components that we can be more active or maybe a little bit ahead of time." (Interviewee 2, p.5)
	Attention	Changes perceived in the company's appreciation of or attention on CF driven by the pandemic and its implications.	The code is applied when the interviewee has previously asked whether the company's view on foresight has changed as compared to before the pandemic.	The code is further assigned when it becomes apparent that the interviewee is reporting changes in internal company perceptions of foresight that maybe related to the pandemic. For example, through the use of words such as "attention," "appreciated" or "interest."	The code is not applied if the interviewee reports on changes in the objectives of CF activities or of aspects that are of interest to CF. The code is further not applied if the interviewee reports on changes in leaders' appreciation of CF.	"Honestly, I think before COVID-19, foresight seemed like it was more important and more of a daily need than it has been after COVID-19 because I think COVID-19 just, like I said, the whole shutdown caused a lot of people to think that it didn't really matter." (Interviewee 23, p.7)
Changes in corporate's approach to the future	Leadership	Changes in leaders' engagement or interest in or support of CF, or in their approach to the future and decision-making driven by the pandemic.	The code is applied when the interviewee if the leadership engagement and/or interest in CF has changed as compared to before the pandemic.	The code is further assigned when it becomes apparent that the interviewee is reporting changes in leaders' attitude toward foresight or the future, or decision-making.	The code is not applied if the interviewee reports on leaders' behavior that cannot be directly linked to the pandemic.	"Yes, I think we've got a lot more buy-in from the leadership across all the other functions that long-range planning is useful and also needs to be done better." (Interviewee 6, p.7)
	Resources	Changes in the resources (e.g., financial, staff, software, external support, information sources) committed to and utilized for CF due to the pandemic.	The code is applied when the interviewee has previously asked for changes in CF with regard to resources applied or external support sought.	The code is further assigned when it becomes apparent that the interviewee is reporting changes in the resource commitment and integration of the company with regard to CF and in the context of the pandemic.	The code is not applied if the interviewee reports on changes in resource commitment or resource utilization that cannot be directly linked to the pandemic.	"Definitely more budget ..." (Interviewee 3, p.7)

(Continues)

TABLE A2 (Continued)

Category	Code	Description	Application	Further application	Exclusion	Example
Changes in corporate's approach to the future	Methods	Changes in and of the CF methods which are applied, due to the pandemic.	The code is applied when the interviewer has previously asked for changes in the processes or methods applied in CF, as compared to before the pandemic.	The code is further applied when the interviewee is telling about changes of the applied methods, in the context of the pandemic.	The code is not applied if the interviewee reports on changes of methods that cannot be directly linked to the pandemic.	"When I think as a practice, because of the outbreak of COVID, did we do anything drastically different from a process perspective to forecast the future, I would say I'm not aware of. I don't think I have seen anything like that (...)." (Interviewee 2, p.5)
Changes in corporate's approach to the future	Time horizon/frame	Changes in the time horizon/ time frame of CF, driven by the pandemic.	The code is applied when the interviewee has previously asked for changes in the CF activities, as compared to before the pandemic and the interviewee responds with insights on the time horizon applied.	The code is further assigned when it becomes apparent that the interview is reporting changes on the regularity of CF, for example, through words like "continuity" or "rhythm."		"The time horizon of looking at foresight has drastically changed from a long window of three to five years to one to three years. The focus is a lot on the year that is coming ahead of us, instead of talking about long-term stuff." (Interviewee 5, p.6)
State of foresight	Conceptualization/ Definition	Definition or conceptualization of foresight as introduced by the interviewee.	The code is applied when the interviewee describes his/her individual conceptualization or definition of foresight.			"... I understand foresight is really looking ahead and this is being very proactive. That's how I think about foresight." (Interviewee 2, p.6)

Abbreviation: CF, corporate foresight.