

“Managing Digital Changes by Established Companies: The Role of Prospective Sensemaking and Corporate Foresight”

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ABSTRACT

This study emphasizes the importance of integrating prospective sensemaking with corporate foresight to maintain a competitive edge for established organizations in the unpredictable landscape. The study also underscores the role of collaboration between established organizations and corporate accelerators as a nexus for innovation and strategic entrepreneurship. Specifically, we explore how managers of an established organization make sense of ongoing digital changes and leverage these interpretations to develop foresight capabilities. Our findings are based on interviews with top and middle managers of one of the leading European banks and its corporate accelerator, as well as with startup founders, forming a dynamic community of practice. Conducting an inductive single-case study, we provide empirical evidence for how prospective sensemaking, and foresight practices enhance an organization's capability to navigate uncertainty, suggesting a strategic approach that utilizes alternative futures as a catalyst for innovation and preparedness.

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1. INTRODUCTION

Corporate foresight is increasingly being recognized as crucial within the domains of strategic management and innovation research, especially given the accelerating rate of change and omnipresent uncertainty in the contemporary business landscape (Nadkarni & Prügl, 2021; Rohrbeck et al., 2015; Sakellariou & Vecchiato, 2022). Specifically, rapid advancements in digital technologies require incumbents to expand their strategic outlook to integrate new knowledge and foster innovation (Tapinos & Pyper, 2018; Vial, 2021). However, research has consistently emphasized that large organizations often struggle to adapt to disruptive changes (Lucas & Goh, 2009; Rohrbeck, 2010; Winter, 2004). Furthermore, organizations are tasked with not only making sense of the external changes that they face (Teece & Leih, 2016; Weick, 1995) but also employing foresight to identify viable strategic responses (Fergnani, 2022; Vecchiato, 2015). Recent scholarly efforts have begun to merge sensemaking studies with corporate foresight research, revealing initial understandings of how they interconnect (e.g. Klos & Spieth, 2021; Sakellariou & Vecchiato, 2022; Tapinos & Pyper, 2018). Despite the advancements, the nuanced interplay between prospective sensemaking and corporate foresight and their mutual reinforcement remain significantly underexplored. Thus, investigating how established organizations interpret and respond to evolving changes stands out as a promising research direction.

The foresight approach was originally based on the premise of future trend forecasting, the conjecture that changes unfold slowly enough for timely recognition and response (Wilson, 1973). Over time, however, the inherent constraints of this approach have prompted a paradigm shift toward embracing a spectrum of possible futures instead of identifying a singular forecasted outcome (Cuhls, 2003; McMaster, 1996). Rohrbeck et al. (2015) have defined foresight as a strategic practice that equips an organization to construct the foundation for a future competitive edge. In this vein, our study aligns with the notion that corporate foresight encompasses the structural and cultural facets that empower an organization to proactively recognize discontinuous change, assess its potential impact, and create strategic responses that secure its enduring success and survival (Rohrbeck & Gemünden, 2011; Rohrbeck & Schwarz, 2013).

In a similar manner, sensemaking is a vital theoretical lens for managing uncertainties and changes (Brown et al., 2015; Moqaddamerad & Tapinos, 2023). Studies on strategic practices and processes frequently explore organizational change by examining managers' interpretations of events (Balogun & Johnson, 2004; Gioia & Chittipeddi, 1991). Additionally,

emerging research proposes that sensemaking is not a process limited to retrospective analysis but can occur prospectively, as individuals seek to comprehend events as they unfold to create an appropriate response (Stigliani & Ravasi, 2012). This anticipatory approach to sensemaking is particularly critical in the realms of innovation and digital technology advancement, where the information about emerging technologies is often uncertain and fragmented (Gephart et al., 2010; Gioia et al., 1994).

Our study expands on prior research to deepen the understanding of the reciprocal influence between corporate foresight and prospective sensemaking, particularly in how established organizations interpret and react to ongoing changes. Specifically, to address this research gap, we aim to answer the following research question: *'How does prospective sensemaking equip an established company with corporate foresight capabilities?'*

To address our research question, we searched for a setting undergoing emerging technological shifts with unclear consequences for an established company compelling the latter's need to plan future-oriented responses. Our pursuit led us to a partnership with one of Europe's leading banks and its affiliated corporate accelerator. Corporate accelerators—entities funded privately and structured to provide an array of support services to emerging ventures (Friesl et al., 2019; Mian et al., 2016)—have become prominent subjects in the discourse on innovation. Indeed, large corporations increasingly engage with startups to reinforce their innovation processes, enhance flexibility (Weiblen & Chesbrough, 2015), or undertake digital transformation (Rothaermel, 2001; Steiber & Alänge, 2021). Hence, employing a single-case study method (Yin, 2018) has allowed us to study the prospective sensemaking practices, and observe their effect on the development of corporate foresight capabilities. The focal banking group operates more than 40 corporate accelerators across Europe, supporting over 1000 startups while engaging with over 700 corporate partners. Specifically, we conducted 38 semistructured interviews over a period of nine months with top and middle managers from the above bank, its corporate accelerators, and the startups they support.

Accordingly, this study makes the following contributions to the literature. First, it expands existing research by revealing how sensemaking enables the interpretation of complex events, thus assisting in response creation (Bajwa et al., 2018; Brown et al., 2015; Cornelissen, 2012). Second, our research responds to the growing demand for a deeper understanding of the synergetic role of corporate foresight and prospective sensemaking (Klos & Spieth, 2021; Sakellariou & Vecchiato, 2022; Tapinos & Pyper, 2018). By adopting this integrated perspective, we propose that these processes are crucial in enabling organizations to proactively recognize and evaluate potential future shifts. Finally, the study highlights the role of corporate

accelerators, facilitators allowing incumbents to navigate digital changes (Chowdhury & Audretsch, 2023; Cohen et al., 2019).

The paper is organized as follows: First, we discuss the research on corporate foresight and prospective sensemaking. Then, we present our methodological approach, a single case study. Finally, we review our findings and their theoretical contributions and managerial implications.

2. THEORETICAL BACKGROUND

2.1 Corporate foresight and unfolding changes

In recent years, the rapid and unpredictable nature of environmental changes has led companies to question the reliability of planning based on past experiences (Dadkhah et al., 2018; Marinković et al., 2022). As a result, executives are increasingly acknowledging the necessity of grounding business decisions not merely on historical data but also on a proactive analysis of potential future trends and changes. This involves continuously scanning and interpreting disruptions in the external environment (Day & Schoemaker, 2004). Consequently, there is increasing interest among companies in implementing corporate foresight (e.g. Fergnani, 2022; Vecchiato & Roveda, 2010a), a trend that is also gaining traction in academic research (e.g. Gordon et al., 2020; Marinković et al., 2022).

A fundamental aspect of foresight rests on the understanding that the future cannot be precisely forecasted or predestined. Instead, it may be shaped by the current decisions of the organization and the actions of other key stakeholders in its industry (Martin, 1995). Furthermore, foresight has been described as a process of creating a pathway from the present to the future, which also involves transforming organizations that are traditionally oriented towards the immediate and short-term horizon, rather than facing uncertain environments (Peter & Jarratt, 2015; Rohrbeck et al., 2015).

The literature on foresight theory encompasses a range of definitions and a variety of applications. Given that the focus of this research is not on the classification of foresight definitions, greater emphasis is placed on the corporate foresight. A recent advancement in this domain is the recognition of corporate foresight as an organizational capability (Slaughter, 1996) to envision the future and formulate a strategy to realize its vision (Marinković et al., 2022; Rohrbeck & Kum, 2018). Simultaneously, corporate foresight lays the groundwork for a learning process that enhances the organization's flexibility and strategic agility, equipping it to adapt to shifts in the external environment (Rohrbeck et al., 2015).

In our definition we emphasize that corporate foresight can be viewed as an organizational capability that integrates structural and cultural aspects; its enables recognizing environmental

shifts, formulating and evaluating viable futures based on these shifts, and then leveraging such foresight to foster and maintain competitive advantages (Marinković et al., 2022; Rohrbeck et al., 2015). Corporate foresight thus aims to reduce uncertainty and expand understanding of unfolding changes, thereby assisting in decision-making processes (Heger & Rohrbeck, 2012).

An increasing number of articles have highlighted the fragmentation of corporate foresight theory (Öner, 2010; Tapinos & Pyper, 2018). Moreover, only recently have inquiries begun to investigate corporate foresight's integration with the prospective sensemaking approach (Sakellariou & Vecchiato, 2022). Thus, we seek to understand how making sense of uncertain digital changes can extend and complement corporate foresight, enabling an organization to adapt to environmental instability (Klos & Spieth, 2021; Vecchiato, 2015).

2.2 Prospective sensemaking

Sensemaking has emerged as a prominent field of research in addressing decision-making amid increasing environmental uncertainty (Bajwa et al., 2018; Cornelissen, 2012; Introna, 2019; Maitlis & Christianson, 2014). Weick (1979) noted that sensemaking essentially involves social processes that individuals use to interpret their environment, thereby navigating through ambiguous or unsettling situations. Research emphasizes the importance of delving into sensemaking within the intersubjective social world of individuals in organizations, focusing on their use of language in conversations and discourse (Bruskin & Mikkelsen, 2020; Gephart, 1993). The core processes of sensemaking include scanning the environment, interpreting it, and taking action (Gioia & Chittipeddi, 1991; Weick, 1979).

Complementary concepts, such as 'sensegiving', as defined by Gioia & Chittipeddi (1991), clarify the dynamics of sensemaking. That is, sensegiving describes the process through which individuals influence others' sensemaking, guiding them toward a redefined perception of organizational reality. This process of interpretation, often driven by persuasive communication, involves various organizational members (Bartunek et al., 1999; Maitlis, 2005).

While many researchers have aligned with Weick's (1979, 1995) concept, highlighting its retrospective nature, an expanding body of theoretical and empirical work suggests that sensemaking can also be future-oriented and happen prospectively (e.g. Gephart et al., 2010). In this evolving academic arena, scholars are differentiating between sensemaking that reflects on the past and sensemaking that is directed toward the future. The latter is usually termed 'prospective sensemaking' (Friesl et al., 2019; Kaplan & Orlikowski, 2013), a concept that underscores the forward-looking, anticipatory nature of sensemaking.

Accordingly, studies on future-focused sensemaking span various domains, including strategy (Gattringer et al., 2021), foresight and forward-looking analysis (Tapinos & Pyper, 2018), the role of artifacts (Stigliani & Ravasi, 2012), and the management of technological uncertainties (Friesl et al., 2019; Moqaddamerad & Tapinos, 2023). However, while this exploration of prospective sensemaking has expanded, scholars have noted that it remains insufficiently theorized; their critiques point to the predominant focus on retrospective sensemaking, which often overshadows its prospective counterpart. There is also wide recognition of the connection between prospective sensemaking and corporate foresight, along with foresight methodologies (Tapinos & Pyper, 2018). Nevertheless, a gap remains in the existing literature regarding a comprehensive description of their relationship (Nathan, 2004).

2.3 Corporate foresight, prospective sensemaking and corporate accelerators

In the current era, digital technologies have emerged as key drivers of environmental uncertainty, adding complexity and dynamism that often result in disruptive shifts (Vial, 2021; Weber et al., 2015). Besides, studies have shown that achieving radical innovation poses a significant challenge for established companies, largely due to their ‘core rigidities’, which limit their actions to well-known patterns (Lucas & Goh, 2009; Christensen, 2013). The increasing focus on innovation calls for an exploration of strategic approaches that enable established firms to actively shape their futures rather than merely react to changes (Hill & Rothaermel, 2003). This vision resonates with concept of sensemaking and view of organizations as interpretation systems (Daft & Weick, 1984; Weick & Sutcliffe, 2001).

In addition, the emergence of digital technologies has significantly enhanced the creation and accessibility of innovative products and services, thereby intensifying the competitive challenges for firms to innovate and explore new ways to grow (Vial, 2021). Hence, a tendency is emerging among established companies—to merge internal and external innovation sources through various collaborative models (Chowdhury & Audretsch, 2023; Weiblen & Chesbrough, 2015). Among these strategies, the implementation of corporate accelerator programs is particularly significant, as it provides a vibrant platform for interactions between established corporations and startups (Becker & Gassmann, 2006; Hochberg, 2016).

Hosting startups within these accelerators can also disseminate entrepreneurial thinking throughout their parent company (Cohen et al., 2019). Conversely, startups gain credibility through their association with established firms, helping them overcome the ‘liability of newness’ (Weiblen & Chesbrough, 2015). Recent research has thus shed increasing light on the underlying motivations and various models of corporate accelerators (Kanbach et al., 2016).

This literature also delves into the primary features of these accelerators, distinguishing them from other types of corporate–startup engagement (Weiblen & Chesbrough, 2015).

Nevertheless, although the literature on sensemaking in relation to foresight is starting to emerge, there is a need for more research on a nuanced understanding of their interconnectedness (Tapinos & Pyper, 2018). Specifically, it is still unclear how making sense of emerging digital opportunities and challenges can enhance an organization's foresight capabilities and enable its adaptation to environmental shifts. Additionally, while the benefits for startups involved in these programs have been explored (e.g. Spender et al., 2017; Weiblen & Chesbrough, 2015), the influence of numerous startups on the strategic responses and future-oriented readiness of large-scale corporations has not been sufficiently investigated (e.g. Steiber & Alänge, 2021; Urbaniec & Żur, 2021).

3. METHODS

Given the limited research on this topic, we have coupled an exploratory research approach (Corbin and Strauss, 2015) with a qualitative approach that is particularly adept at unraveling complex phenomena (Yin, 2018). To delve deeply into our research questions, we have employed a single-case study design (Scholz and Tietje, 2002; Dyer and Wilkins, 1991). Consequently, our single-case study approach has facilitated the observation and comparison of various standpoints within the same context, enabling us to obtain insights from various data and develop an empirical account of the focal phenomenon (Yin, 2018).

3.1 Case selection and description

Aligned with our methodology, we adopted a heterogeneous targeted sampling strategy (Patton, 2002) to select interviewees based on their knowledge and respective roles, thereby reinforcing the study's validity (Yin, 2018). Specifically, our research questions led us to collaborate with one of Europe's largest banks (henceforth referred to as 'the Bank'). To maintain confidentiality, we anonymized the identities of both the Bank and the respondents in this study.

The banking industry worldwide is experiencing significant digital disruptions (e.g. Ngau et al., 2023; Riikkinen and Pihlajamaa, 2022). The Bank, one of the world's largest cooperative financial institutions and a major bank in Europe, operates as an international banking group comprised of a network of local and regional banks. A decade ago, the Bank launched its corporate accelerator program to foster partnerships with startups. This decision by the Bank reflects a broader trend among established corporations, increasingly turning to initiatives such

as corporate accelerators to effectively navigate the obstacles posed by digital challenges (Kohler, 2016; Shankar and Shepherd, 2019; Urbaniec and Zur, 2021). The Bank's corporate accelerator program spans three European countries; over 40 hubs host more than 1000 startups and partner with more than 700 organizations. Therefore, the focal corporate accelerators, initiated by the large, traditional Bank, represent a revelatory case, providing valuable insights into the sensemaking of emerging changes and its impact on corporate foresight (Yin, 2018).

3.2 Data collection

Our primary method of data collection was the qualitative interview (Gephart, 2013; Kvale and Brinkmann, 2009). Specifically, we conducted a total of 38 in-depth interviews over a 9-month period. Initial informal contacts within the focal organization facilitated the identification of potential informants for these interviews, which were conducted with top and middle managers from both the Bank and its corporate accelerators. To broaden the range of perspectives, we also interviewed various startup founders including those currently hosted by an accelerator and alumni.

Our focus was primarily on how organizational members interpret evolving changes and how their sensemaking influences innovation-led and future-focused decision-making. All the interviews were conducted via video calls. The interviews ranged from 40 to 96 minutes, averaging approximately 68 minutes. Each interview was digitally recorded with the participant's consent and then transcribed verbatim. In cases where recording was not permitted, we took detailed notes to ensure accurate documentation of these discussions. In total, the interviews amounted to over 500 single-spaced pages concerning managerial discussions and more than 70 single-spaced pages regarding startup interviews (Table 1 provides the overview of the interview participants).

All the interviews were open-ended and semistructured, which allowed the participants to discuss the issues they deemed important while giving us sufficient flexibility to delve deeper into certain topics for clarification (Gioia et al., 2013). The interviews with startup participants were also crucial for triangulating the data (Farquhar et al., 2020). Feedback loops, established through follow-up interviews, also enriched our data collection, ensuring that our interpretations were firmly rooted in the lived experiences of our participants (Gioia et al., 2013).

Table 1: Overview of the interview participants

Country 1			Country 2		
Region	ID	Participants	Region	ID	Participants
1	1	Director	1	23	Director
	2	Middle manager		24	Middle manager
	3	Startup (CEO)		25	Startup (CEO)
2	4	Director	2	26	Director
	5	Middle manager		27	Middle manager
	6	Startup (COO)		28	Director (Open innovation department)
3	7	Director		29	Middle manager (Open innovation department)
	8	Startup (CEO)	3	30	Director
	9	Startup (CEO)		31	Middle manager
4	10	Director			
	11	Startup (CTO)			
5	12	Middle manager			
	13	Startup (CEO)			
	14	Startup (CTO)			
6	15	Middle manager			
	16	Startup (CEO)			
7	17	Director			
8	18	Director			
9	19	Director			
10	20	Middle manager			
11	21	Middle manager			
12	22	Middle manager			
Total number of interviews: 38					
<i>(including participants who were interviewed twice)</i>					

Moreover, consistent with the single-case approach (Dyer and Wilkins, 1991; Yin, 2018), we complemented our primary interview data with various secondary sources (Gephart, 2013) such as internal documents provided by interviewees as well as publicly accessible materials including news articles, press releases, corporate websites, and published interviews (Table 2 details these data sources).

3.3 Data analysis and coding methodology

All the collected and recorded materials were systematically organized and transcribed. The first author coded the data from all the sources, and the second author checked a sample of these codes to confirm intercoder reliability (Gibbert et al., 2008; Miles and Huberman, 1994). The Gioia method was adopted, a systematic approach to structuring data via data-driven coding steps, thereby providing convincing evidence in support of our conclusions (Gioia et al., 2022, 2013) as well as developing concepts and allowing theorizing (Harley and Cornelissen, 2022).

Table 2: Overview of the data sources

	Primary data	Secondary data*			
	Interviews	Reports	Presentations	Interviews	News/Press articles
Data items	n = 38	n = 10	n = 6	n = 20	n = 35
Time of data collection	2023	2014-2023	2023	2014-2023	2014-2023
Number of pages (single-spaced)	over 500	765	29	41	55
Description of the data	Semi-structured interviews were conducted with 29 top and middle managers responsible for managing the corporate accelerator and open innovation of the Bank; 5 of these managers were interviewed twice. Additionally, we conducted semi-structured interviews with 9 startup founders.		News of corporate accelerator and the Bank published by the organization itself or by other media outlets. Social media posts on Instagram; corporate accelerator information including articles published online and in print newspapers. Interviews with directors of the Bank, corporate accelerators and startups.		
Role in analysis	Overview of the prospective sensemaking and corporate foresight.		Accounts of the Bank’s strategic actions in relation to prospective sensemaking and corporate foresight. Demonstrations of the Bank’s sensemaking of digital uncertainties. Evidence of the firm’s strategic actions to enhance foresight capabilities.		
	*Not mentioned in the analysis to keep anonymity of the Bank				

In analyzing the data, we aimed to understand how organizational members make sense of digital changes that are still evolving and how these interpretations can equip an established organization with corporate foresight. To achieve a multifaceted understanding of these phenomena, we separately analyzed the data from the Bank, its corporate accelerators, and startups while continuously contrasting and comparing all emerging insights (Corbin and Strauss, 2015).

Adhering to the principles of the Gioia method (Gioia et al., 2013), we initially identified the 'first-order concepts' (informant-based codes that describe informants' experiences in their own words) through open and in vivo coding. Through multiple rounds of grouping and regrouping these codes, we identified themes that explain the empirical data (Gioia et al., 2013). This process allowed us to develop a broad preliminary understanding, free from any a priori assumptions or theories.

Next, we explored the relationships among the first-order codes and grouped them into 'second-order categories' (researcher-based themes offering a theoretical perspective). To refine, complement, and validate our emerging interpretations, we actively compared and contrasted these preliminary findings with the literature on prospective sensemaking and

corporate foresight. We also incorporated secondary data to verify and validate the findings from the interviews.

In the final stage of our analysis, we developed aggregated theoretical dimensions. This was accomplished by assimilating the second-order categories into a detailed conceptualization of sensemaking and corporate foresight (Gioia et al., 2022, 2013). As a result of this stage, we integrated these emerging categories into an overarching theoretical framework (Corbin and Strauss, 2015; Gioia et al., 2013) (Fig. 1 illustrates the data structure). Hence, we ceased the sampling process once we reached ‘theoretical saturation’ (Glaser and Strauss, 2017) and no new insights emerged from the collected verbal accounts (Strauss and Corbin, 1998).

Additionally, to enhance the validity of our analysis and mitigate interpretation bias, we implemented various forms of triangulation (Farquhar et al., 2020). First, through researcher triangulation, we involved multiple researchers with diverse theoretical backgrounds in analyzing and interpreting the part of the data. Second, we employed data triangulation, drawing insights from a comprehensive range of secondary data sources encompassing perspectives from the Bank, its corporate accelerators, and startups. Third, we utilized theory triangulation, combining theoretical perspectives from the fields of sensemaking, prospective sensemaking, and foresight.

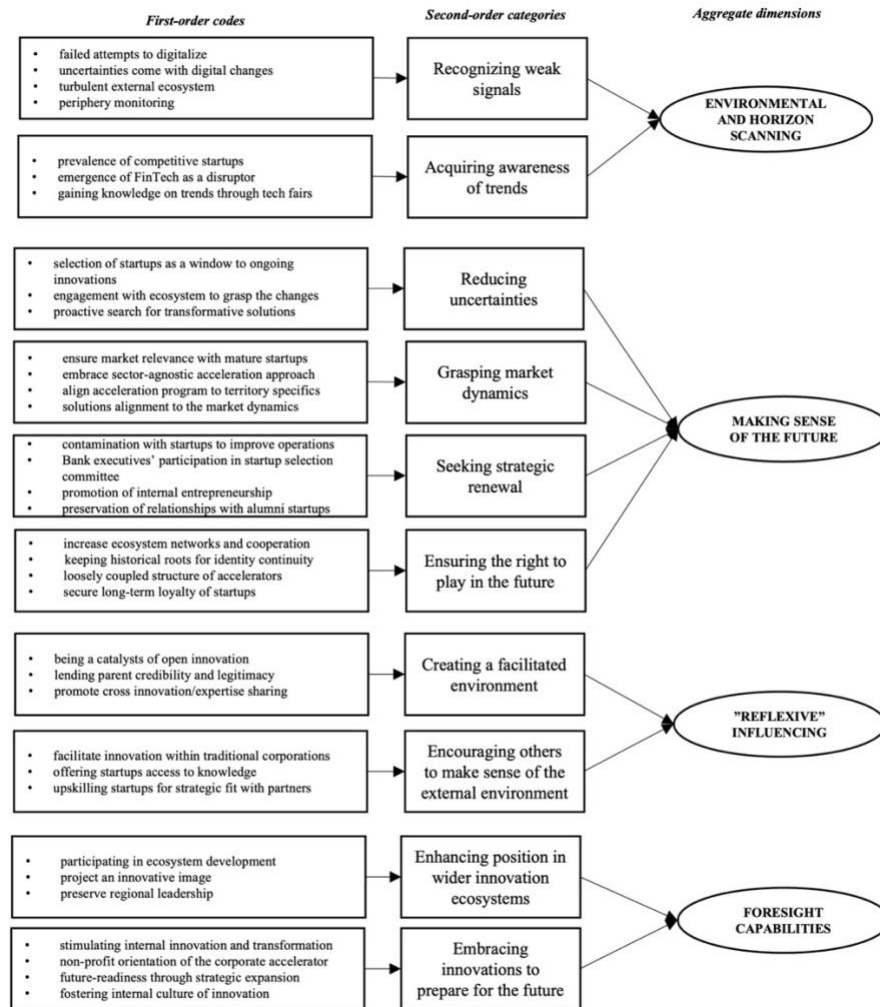
4. FINDINGS

Our empirical analysis focused on the question of how an incumbent firm interprets unfolding changes and develops corporate foresight capabilities to address future shifts. Below, we detail our findings, which are supported by illustrative quotations. We then summarize them with our empirically grounded conceptual framework at the end of this section.

4.1 Environmental and horizon scanning

Environmental and horizon scanning refer to the Bank’s monitoring activities and analyses of market and industry dynamics as well as future trends to gain a grasp of its environment. Environmental and horizon scanning encompasses a broad spectrum of monitoring practices and is based on both recognizing weak signals and acquiring trend awareness.

Figure 1: Data structure



Recognizing weak signals involves identifying the cues that our participants perceived as significantly vague, with unclear impacts on the future of the organization. This change dynamism is captured by one of the top managers as follows: *'The world is changing. Society is changing, and as [the Bank], we have to change too to follow these evolutions'* (Director 18).

Moreover, as weak signals often exist on the periphery of an organization's radar, our interviewees revealed that the Bank, through its corporate accelerators, aims to acquire and monitor emerging technologies. As one of the managers explained, a tangible local presence is essential for understanding unfolding changes across territories and countries with this presence: *'So, every single accelerator become a window on the local environment of startups. [...] each environment shows where the innovation is going in that specific region'* (Manager 26).

Acquiring trend awareness involves recognizing the more observable signals of changes, which are expected to persist into the future. Additionally, our participants stated that FinTech, a merger of finance and technology, initially emerged as a particularly potent disruptor: *'FinTech was probably one of the reasons why the [corporate accelerator] was created'* (Director 18). This trend was further emphasized by the European government's attention toward promoting technology, which served as a significant indicator of the government's commitment to innovation.

Finally, our participants emphasized that to stay informed of the latest trends, they often attend various technology fairs and conferences. As one participant described, *'So, we are going together to the VivaTech, which is a huge place to be for innovation in Europe. So, I think the company now is focused on what could happen and how can we protect ourselves as well against attacks that can come from many places'* (Director 10).

4.2 Making sense of the future

Making sense of the future refers to organizational actors' interpretations of cues of unfolding changes and their attempts to identify and bracket salient opportunities and organizational challenges. Making sense of the future thus involves reducing uncertainties, seeking strategic renewal, grasping market dynamics, and ensuring the right to play in the future.

Reducing uncertainties involves continuous interpretations and anticipations of changes that may impact the organization. For example, as one of the managers stated, by closely engaging with the startup ecosystem, a corporate accelerator allows the Bank to grasp ongoing innovations: *'So, basically, [the Bank] has full awareness of all the startups. It's basically knowledge gain'* (Manager 12).

Furthermore, by collaborating with startups that resonate with its core competencies, the Bank ensures a continuous flow of insights. As one of the top managers explained, *'That's why we select specific things like FinTech, RegTech or sustainability in which we invest, in order to learn some more synergy between the Bank and those startups'* (Director 28).

Grasping market dynamics entails the organizational actors making interpretive efforts to anticipate future market changes and movements. For instance, our participants emphasized the importance of market relevance, highlighting that the corporate accelerator program prioritizes mature, market-ready startups: *'We accompany the startups created with a commercialization product or service and the market around the startup'* (Manager 4). Additionally, our interviewees noted the accelerators' common preference for business-to-business (B2B) startups over business-to-consumer (B2C) startups. This preference is primarily due to their alignment with the Bank's partners and clients.

Our participants also emphasized that the majority of accelerators adopt a sector-agnostic approach. As one of the top managers specified, *'When we were born, we immediately had startups from all sectors'* (Director 2).

Seeking strategic renewal refers to the endeavors of managers that aim to understand which emerging technologies and innovative practices could benefit the Bank's transformation and competitiveness. As one of the managers explained, *'We try to connect our startups with [the Bank] group'* (Manager 1).

Our interviewees also stated that to identify potential startups with a strategic fit goal, senior corporate leaders in the Bank participate in the startup selection process.

In addition, our interviewees noted that the corporate accelerator program serves to accelerate ideas that were born inside the Bank, fostering internal entrepreneurship. As one of the managers elaborated, *'The two founders, they are from [the Bank] corporate and investment [department]. They found that some software was necessary to do their job correctly. So, they created this software, and then it became a startup. The startup is owned a 100% by [the Bank]'* (Manager 1).

Ensuring the right to play in the future encompasses the organizational members' interpretative efforts geared toward understanding how to preserve the Bank's and its corporate accelerators' future positions while constantly adapting to dynamic changes and uncertainties.

Our participants stressed the importance of the loosely coupled accelerator structure in quickly grasping and adapting to unfolding changes. While it originated in the Bank and is part of its network, accelerators operate quite independently, *'Each [accelerator] can do what they want to do. But we harmonized some practices, and we worked better together over time'* (Manager 22).

Furthermore, all the participants emphasized the Bank's efforts toward preserving and respecting its historical roots, effectively merging its past with the future. As one of the top managers stated, *'This is the DNA of the Bank to help territories, to develop the economic activities of the territories. So, to reach this goal [the Bank] has to be a leader on its territory'* (Director 17).

4.3 'Reflexive' influencing

Reflexive influencing refers to organizational members' attempts to influence the sensemaking of others without prescribing a specific redefinition of reality. To describe this process, we have borrowed and adapted Robert & Ola's (2021) definition of 'reflexive sensegiving', an open-ended and undetermined process in which participants are encouraged to

contribute actively. Reflexive influencing therefore includes creating a facilitated environment and encouraging others to make sense of the external environment.

Creating a facilitated environment refers to the creation and promotion of an environment characterized by openness and flexibility. According to our participants, the Bank and accelerator program act as catalysts in a vibrant ecosystem, maintaining an ongoing dialog surrounding digital technologies. For example, one of the top managers explained: *'The philosophy of the [corporate accelerator] is to cooperate for innovation. So, we really want to create synergies between these talents who tomorrow can create jobs'* (Director 7).

Additionally, as a result of their collaborations with the Bank's corporate accelerators, the startups are perceived by the public as more credible and stable, as one of the startup founders explained: *'We say, we are incubated in [this corporate accelerator], and the Bank is known by everyone. And you look more stable in front of your potential customers'* (Startup Founder 25).

Encouraging others to make sense of the external environment reflects the efforts taken by organizational members to encourage corporate partners and startups to take an active role in interpreting and reinterpreting market dynamics, technological shifts, and uncertainties.

For example, our participants frequently discussed initiatives and practices focused on helping established companies incorporate innovative ideas, technologies, and practices into their operations. As one of the top managers explained, *'My mission is to help the traditional companies to have new ideas for their companies in innovative projects we have in this [accelerator]'* (Director 18).

Our participants also mentioned certain efforts geared toward offering startups access to knowledge that could facilitate their growth and development. Startup founders also emphasized how the practices provided by the accelerator program encourage them to identify their target markets and expand their professional networks: *'They give you the flexible thinking'* (Startup Founder 13).

4.4 Foresight capabilities

Foresight capabilities involve enacting future-oriented strategic decisions based on the sensemaking of unfolding digital changes, with the goal of being prepared for several possible futures. Such foresight capabilities include enhancing its position across wider innovation ecosystems and embracing innovation to prepare for the future.

Enhancing position across wider innovation ecosystems refers to the Bank's strategic aspiration—staying at the forefront of industry developments and proactively addressing immediate and near-term challenges.

Specifically, the Bank has utilized the accelerator program to proactively shift its outdated image. As one of the top managers explained, *'The first thing we started with was [the accelerator] will help to communicate about [our] bank that it is innovative'* (Director 2).

Additionally, the Bank's proactive engagement in and provision of services for local and regional economic development represent a forward-thinking approach that acknowledges the significance of robust local economies for future stability.

Embracing innovations to prepare for the future focuses on the Bank's strategic approach to integrating innovation and transformation into its core operations.

Specifically, our participants stated that collaboration with startups triggers internal transformation within the Bank. As one of the top managers noted, *'The scope is more to find technology, find innovation, and use this innovation in order to improve the innovation process within the bank'* (Director 28).

Our participants thus emphasized how by pursuing collaborations with innovative entities and engaging in strategic reflexivity, the Bank has positioned itself to clearly foresee and influence future demands and expectations in the focal sector, *'We go a little out of the classic codes of banks. [We are] a group which is a bit of a precursor'* (Director 19).

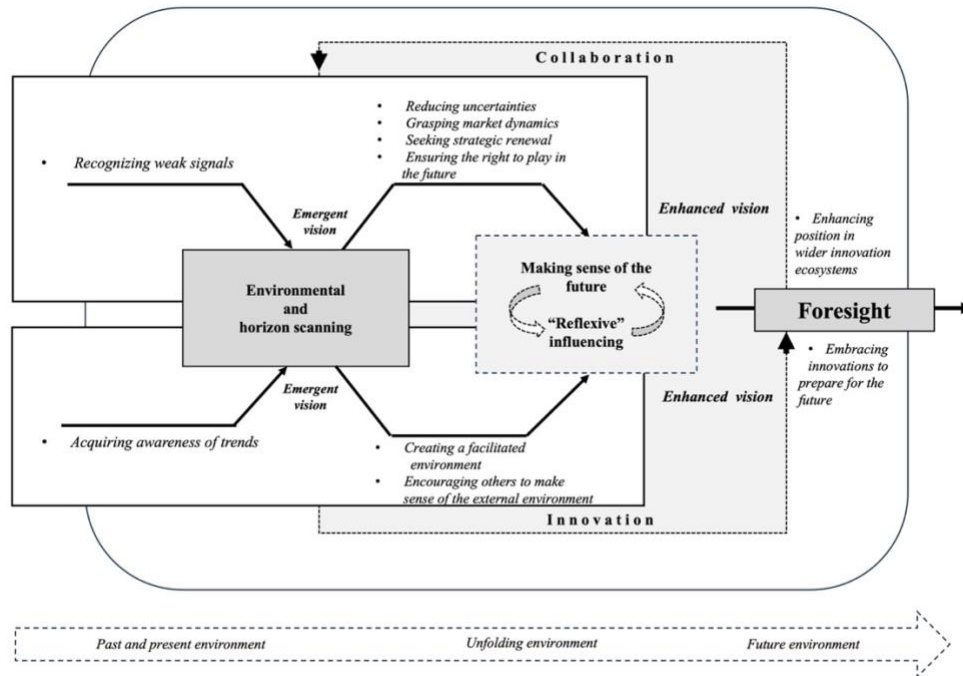
Finally, according to our participants, the nonprofit orientation of the corporate accelerator program reflects the Bank's commitment to long-term value creation. As one of the top managers concluded, *'Some part of it is to have a window on the innovation, as a trendsetter. It's a medium- and long-term investment for the future, but the advantage is to have a long-term special observatory on innovation'* (Director 27).

4.5 The mutual influence of prospective sensemaking and corporate foresight

Our empirical analysis has shown that corporate foresight can be regarded as organizational capabilities that allow the enactment of strategic, future-oriented decisions (MacKay, 2009; Rhisiart et al., 2015). These capabilities are based on environmental and horizon scanning, making sense of unfolding changes, and encouraging other stakeholders of the ecosystem to interpret future challenges, as Fig. 2 illustrates.

Understanding change as both a continuous and emergent demand requires that organizations must rely less on planning and more on noting unfolding changes and making sense of them (Weick, 1995). In addition, to facilitate the engagement of organizational actors and other stakeholders in sensemaking activities, the Bank has encouraged the engagement of all its stakeholders in activities to interpret and interrogate the uncertainties (Bartunek et al., 1999).

Figure 2: Prospective sensemaking and corporate foresight amidst digital changes



As global competition becomes more turbulent amid an increasingly uncertain future, companies need to adopt a more flexible approach to organizational strategy by developing their corporate foresight capabilities (Fergnani, 2022). In other words, the iterative incorporation of both weak and strong signals into prospective sensemaking enables the enactment of foresight initiatives. These initiatives address and shape the emerging environment, including long-term strategic initiatives, and probe the relevance of current initiatives and value propositions.

5. DISCUSSION

Our findings illustrate that by integrating with the startup ecosystem, an established organization significantly enhances its understanding of market dynamics and develops tailored solutions to address emerging challenges. Moreover, through collaborations with startups, the Bank has managed to project an innovative image in a competitive environment. Our interviewees emphasized also that the intention to maintain a regional presence is a fundamental part of its organizational identity. Additionally, the Bank provides a platform where startups, along with the Bank's partners and employees, can engage in discussions about future digital changes. This arrangement encourages startups to develop a deeper understanding of the environment and to adapt its organizational methods in response to unfolding changes. The

ability to recognize and interpret changes is deeply intertwined with sensemaking theory (Gioia et al., 1994; Smircich & Stubbart, 1985).

At the same time, our participants agreed that although the Bank has recognized the importance of digital changes to its business, it still faces challenges in innovating and experimenting compared to startups. Consequently, the shift towards digital transformation, through prioritizing collaborations with startups, represents a proactive change in the Bank's strategic approach. This approach aligns with the concept of corporate foresight (Sakellariou & Vecchiato, 2022). Moreover, involvement in the startup acceleration process facilitates a seamless flow of future-oriented information across various functional and hierarchical levels within an organization (Day & Schoemaker, 2004; Weiblen & Chesbrough, 2015).

This research makes substantial contributions in several key areas. Firstly, by conducting a single case study, it expands the existing literature to illustrate the facilitating role of sensemaking in development responses to unforeseen digital changes (Brown et al., 2015; Cornelissen, 2012; Gioia & Chittipeddi, 1991). Instead of making assumptions about the future and then seeking to justify them, our interviewees interpret the future based on signals received from environmental scanning. This approach aligns with the concept of prospective sensemaking (Bruskin & Mikkelsen, 2020; MacKay, 2009; Nathan, 2004).

Furthermore, this study broadens the corporate foresight literature by illustrating how corporate foresight capabilities are developed (Fergnani, 2022; Marinković et al., 2022). It has been noted that large firms often struggle to respond to discontinuous changes (Hill & Rothaermel, 2003). Our contribution gains particular significance as Dadkhah et al. (2018) emphasized that it is crucial to identify factors affecting the development of corporate foresight capabilities to strengthen a corporation's ability to maintain a competitive edge in the face of disruptive change.

Finally, this research highlights the key role of corporate accelerators as strategic tools in enhancing the foresight capabilities of established firms. From the perspective of innovation management and foresight, employing an ecosystem lens reveals how focal organizations can initiate and capitalize on collaborations with other organizations to build innovation ecosystems (Adner & Kapoor, 2010). By delving into the Bank's accelerator programs and their strategic aims, we shed light on how these accelerators serve both as hubs of innovation and as catalysts for strategic enhancement (Rothaermel, 2001; Steiber & Alänge, 2021).

Our study, by focusing on a single case, has provided insights on prospective sensemaking and corporate foresight capabilities but also presents certain limitations and avenues for further research. Future studies might examine similar foresight and sensemaking practices and the

roles of diverse actors in varied organizational contexts, e.g., during board meetings and workshops. Further research could delve into how similar processes unfold across different organizational types, such as SMEs or startups. Moreover, adopting a longitudinal perspective, employing observational methods would significantly contribute to a more comprehensive and nuanced understanding of our initial findings.

REFERENCES

- Adner, R., & Kapoor, R. (2010). Value creation in innovation ecosystems: How the structure of technological interdependence affects firm performance in new technology generations. *Strategic management journal*, 31(3), 306–333.
- Bajwa, S. U., Waseem, A., & Akbar, A. A. (2018). Making sense of sensemaking process in the face of different types of organizational environment. *Academy of Management Proceedings*, 2018(1), 12977.
- Balogun, J., & Johnson, G. (2004). Organizational restructuring and middle manager sensemaking. *Academy of management journal*, 47(4), 523–549.
- Bartunek, J. M., Krim, R. M., Necochea, R., & Humphries, M. (1999). Sensemaking, sensegiving, and leadership in strategic organizational development. In J. A. Wagner III (Ed.), *Advances in qualitative organization research* (pp. 36–71, Vol. 2).
- Becker, B., & Gassmann, O. (2006). Corporate incubators: Industrial R&D and what universities can learn from them. *The Journal of Technology Transfer*, 31, 469–483.
- Brown, A. D., Colville, I., & Pye, A. (2015). Making sense of sensemaking in organization studies. *Organization studies*, 36(2), 265–277.
- Bruskin, S., & Mikkelsen, E. N. (2020). Anticipating the end: Exploring future-oriented sensemaking of change through metaphors. *Journal of organizational change management*, 33(7), 1401–1415.
- Chowdhury, F., & Audretsch, D. B. (2023). Paradoxes of accelerator programs and new venture performance: Do varieties of experiences make a difference? *Small Business Economics*, 1–29.
- Christensen, C. M. (2013). The innovator's dilemma: When new technologies cause great firms to fail. *Harvard Business Review Press*.
- Cohen, S., Fehder, D. C., Hochberg, Y. V., & Murray, F. (2019). The design of startup accelerators. *Research Policy*, 48(7), 1781–1797.
- Corbin, J. M., & Strauss, A. L. (2015). Basics of qualitative research: Techniques and procedures for developing grounded theory (4th ed.). *SAGE Publications*.
- Cornelissen, J. P. (2012). Sensemaking under pressure: The influence of professional roles and social accountability on the creation of sense. *Organization Science*, 23(1), 118–137.
- Cuhls, K. (2003). From forecasting to foresight processes—new participative foresight activities in Germany. *Journal of forecasting*, 22(2-3), 93–111.
- Dadkhah, S., Bayat, R., Fazli, S., Tork, E. K., & Ebrahimi, A. (2018). Corporate foresight: Developing a process model. *European Journal of Futures Research*, 6, 1–10.

Daft, R. L., & Weick, K. E. (1984). Toward a model of organizations as interpretation systems. *Academy of management review*, 9(2), 284–295.

Day, G. S., & Schoemaker, P. J. (2004). Driving through the fog: Managing at the edge. *Long range planning*, 37(2), 127–142.

Dyer, W. G., & Wilkins, A. L. (1991). Better stories, not better constructs, to generate better theory: A rejoinder to Eisenhardt. *Academy of management review*, 16(3), 613–619.

Farquhar, J., Michels, N., & Robson, J. (2020). Triangulation in industrial qualitative case study research: Widening the scope. *Industrial Marketing Management*, 87, 160–170.

Ferngani, A. (2022). Corporate foresight: A new frontier for strategy and management. *Academy of Management Perspectives*, 36(2), 820–844.

Friesl, M., Ford, C. J., & Mason, K. (2019). Managing technological uncertainty in science incubation: A prospective sensemaking perspective. *R&D Management*, 49(4), 668– 683.

Gattringer, R., Damm, F., Kranewitter, P., & Wiener, M. (2021). Prospective collaborative sensemaking for identifying the potential impact of emerging technologies. *Creativity and Innovation Management*, 30(3), 651–673.

Gephart, R. (2013). Doing research with words: Qualitative methodologies and industrial/organizational psychology. *Modern research methods for the study of behavior in organizations*, 265–318.

Gephart, R., Topal, Ç., & Zhang, Z. (2010). Future-oriented sensemaking: Temporalities and institutional legitimation. In *Process sensemaking and organizing*. Oxford.

Gephart Jr, R. P. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of management journal*, 36(6), 1465–1514.

Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic management journal*, 29(13), 1465–1474.

Gioia, D., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15–31.

Gioia, D., Thomas, J. B., Clark, S. M., & Chittipeddi, K. (1994). Symbolism and strategic change in academia: The dynamics of sensemaking and influence. *Organization science*, 5(3), 363–383.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic management journal*, 12(6), 433–448.

Gioia, D. A., Corley, K. G., & Fabbri, T. (2002). Revising the past (while thinking in the future perfect tense). *Journal of organizational change management*, 15(6), 622– 634.

Gioia, D., Corley, K., Eisenhardt, K., Feldman, M., Langley, A., Lê, J., Golden-Biddle, K., Locke, K., Mees-Buss, J., Piekkari, R., et al. (2022). A curated debate: On using “templates” in qualitative research. *Journal of Management Inquiry*, 31(3), 231–252.

Glaser, B., & Strauss, A. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge.

Gordon, A. V., Ramic, M., Rohrbeck, R., & Spaniol, M. J. (2020). 50 years of corporate and organizational foresight: Looking back and going forward. *Technological Forecasting and Social Change*, 154, 119966.

Heger, T., & Rohrbeck, R. (2012). Strategic foresight for collaborative exploration of new business fields. *Technological Forecasting and Social Change*, 79(5), 819–831.

Hill, C. W., & Rothaermel, F. T. (2003). The performance of incumbent firms in the face of radical technological innovation. *Academy of management review*, 28(2), 257– 274.

Hochberg, Y. V. (2016). Accelerating entrepreneurs and ecosystems: The seed accelerator model. *Innovation policy and the economy*, 16(1), 25–51.

Introna, L. D. (2019). On the making of sense in sensemaking: Decentred sensemaking in the meshwork of life. *Organization Studies*, 40(5), 745–764.

Kanbach, D. K., & Stubner, S. (2016). Corporate accelerators as recent form of startup engagement: The what, the why, and the how. *Journal of Applied Business Research*, 32(6), 1761–1776.

Kaplan, S., & Orlikowski, W. J. (2013). Temporal work in strategy making. *Organization science*, 24(4), 965–995.

Klos, C., & Spieth, P. (2021). READY, STEADY, DIGITAL?! How foresight activities do (NOT) affect individual technological frames for managerial SENSEMAKING. *Technological Forecasting and Social Change*, 163, 120428.

Kohler, T. (2016). Corporate accelerators: Building bridges between corporations and startups. *Business horizons*, 59(3), 347–357.

Lucas, H. C., & Goh, J. M. (2009). Disruptive technology: How Kodak missed the digital photography revolution. *The Journal of Strategic Information Systems*, 18(1), 46– 55.

MacKay, R. B. (2009). Strategic foresight: Counterfactual and prospective sensemaking in enacted environments. *Handbook of research on strategy and foresight*, 90–112.

Maitlis, S. (2005). The social processes of organizational sensemaking. *Academy of management journal*, 48(1), 21–49.

Maitlis, S., & Christianson, M. (2014). Sensemaking in organizations: Taking stock and moving forward. *Academy of Management Annals*, 8(1), 57–125.

Marinković, M., Al-Tabbaa, O., Khan, Z., & Wu, J. (2022). Corporate foresight: A systematic literature review and future research trajectories. *Journal of Business Research*, 144, 289–311.

Martin, B. R. (1995). Foresight in science and technology. *Technology analysis & strategic management*, 7(2), 139–168.

McMaster, M. (1996). Foresight: Exploring the structure of the future. *Long Range Planning*, 29(2), 149–155.

Mian, S., Lamine, W., & Fayolle, A. (2016). Technology business incubation: An overview of the state of knowledge. *Technovation*, 50, 1–12.

Moqaddamerad, S., & Tapinos, E. (2023). Managing business model innovation uncertainties in 5G technology: a future-oriented sensemaking perspective. *R&D Management*, 53(2), 244–259.

Nadkarni, S., & Prügl, R. (2021). Digital transformation: A review, synthesis and opportunities for future research. *Management Review Quarterly*, 71(2), 233–341.

Nathan, M. L. (2004). How past becomes prologue: A sensemaking interpretation of the hindsight-foresight relationship given the circumstances of crisis. *Futures*, 36(2), 181–199.

Ngau, C. M., Zins, A. H., & Rengasamy, D. (2023). Why do bank customers switch? A systematic literature review. *International Journal of Bank Marketing*, 41(6), 1308–1329.

Öner, M. A. (2010). On theory building in foresight and futures studies: A discussion note. *Futures*, 42(9), 1019–1030.

Patton, M. Q. (2014). Qualitative research & evaluation methods: Integrating theory and practice. *Sage publications*.

Peter, M. K., & Jarratt, D. G. (2015). The practice of foresight in long-term planning. *Technological Forecasting and Social Change*, 101, 49–61.

Rhisiart, M., Miller, R., & Brooks, S. (2015). Learning to use the future: Developing foresight capabilities through scenario processes. *Technological Forecasting and Social Change*, 101, 124–133.

Robert, K., & Ola, L. (2021). Reflexive sensegiving: An open-ended process of influencing the sensemaking of others during organizational change. *European Management Journal*, 39(4), 476–486.

Rohrbeck, R. (2010). Towards a maturity model for organizational future orientation. *Academy of Management Proceedings*, 2010(1), 1–6.

Rohrbeck, R., Battistella, C., & Huizingh, E. (2015). Corporate foresight: An emerging field with a rich tradition. *Technological Forecasting and Social Change*, 101, 1–9.

Rohrbeck, R., & Gemünden, H. G. (2011). Corporate foresight: Its three roles in enhancing the innovation capacity of a firm. *Technological forecasting and social change*, 78(2),

Rohrbeck, R., & Kum, M. E. (2018). Corporate foresight and its impact on firm performance: A longitudinal analysis. *Technological Forecasting and Social Change*, 129, 105–116.

Rohrbeck, R., & Schwarz, J. O. (2013). The value contribution of strategic foresight: Insights from an empirical study of large European companies. *Technological Forecasting and Social Change*, 80(8), 1593–1606.

Rothaermel, F. T. (2001). Incumbent's advantage through exploiting complementary assets via interfirm cooperation. *Strategic management journal*, 22(6-7), 687–699.

Sakellariou, E., & Vecchiato, R. (2022). Foresight, sensemaking, and new product development: Constructing meanings for the future. *Technological Forecasting and Social Change*, 184, 121945.

Shankar, R. K., & Shepherd, D. A. (2019). Accelerating strategic fit or venture emergence: Different paths adopted by corporate accelerators. *Journal of Business Venturing*, 34(5), 105886.

Slaughter, R. A. (1996). Foresight beyond strategy: Social initiatives by business and government. *Long Range Planning*, 29(2), 156–163.

Smircich, L., & Stubbart, C. (1985). Strategic management in an enacted world. *Academy of management Review*, 10(4), 724–736.

Spender, J.-C., Corvello, V., Grimaldi, M., & Rippa, P. (2017). Startups and open innovation: A review of the literature. *European Journal of Innovation Management*, 20(1), 4–30.

Steiber, A., & Alänge, S. (2021). Corporate-startup collaboration: Effects on large firms' business transformation. *European Journal of Innovation Management*, 24(2), 235–257.

Stigliani, I., & Ravasi, D. (2012). Organizing thoughts and connecting brains: Material practices and the transition from individual to group-level prospective sensemaking. *Academy of Management journal*, 55(5), 1232–1259.

Strauss, A. L., & Corbin, J. M. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory. *Sage Publications, Inc.*

Tapinos, E., & Pyper, N. (2018). Forward looking analysis: Investigating how individuals 'do' foresight and make sense of the future. *Technological Forecasting and Social Change*, 126, 292–302.

Teece, D., & Leih, S. (2016). Uncertainty, innovation, and dynamic capabilities: An introduction. *California management review*, 58(4), 5–12.

Urbaniec, M., & Żur, A. (2021). Business model innovation in corporate entrepreneurship: Exploratory insights from corporate accelerators. *International Entrepreneurship and Management Journal*, 17(2), 865–888.

Vecchiato, R. (2015). Creating value through foresight: First mover advantages and strategic agility. *Technological Forecasting and Social Change*, 101, 25–36.

Vecchiato, R., & Roveda, C. (2010). Foresight in corporate organisations. *Technology Analysis & Strategic Management*, 22(1), 99–112.

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Managing digital transformation*, 13–66.

Weber, C., Sailer, K., & Katzy, B. (2015). Real-time foresight—preparedness for dynamic networks. *Technological Forecasting and Social Change*, 101, 299–313.

Weiblen, T., & Chesbrough, H. W. (2015). Engaging with startups to enhance corporate innovation. *California management review*, 57(2), 66–90.

Weick, K. E. (1995). Sensemaking in organizations (Vol. 3). *Sage*.

Weick, K. E., & Sutcliffe, K. M. (2001). Managing the unexpected (Vol. 9). *San Francisco: Jossey-Bass*.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization science*, 16(4), 409–421.

Weick, K. (1979). The social psychology of organizing (2nd). *Random House Inc*.

Wilson, I. H. (1973). Futures forecasting for strategic planning at General Electric. *Long Range Planning*, 6(2), 39–42.

Winter, S. G. (2004). Specialised perception, selection, and strategic surprise: Learning from the moths and bees. *Long Range Planning*, 37(2), 163–169.

Yin, R. K. (2018). Case study research and applications (Vol. 6). *Sage Thousand Oaks, CA*.