Lisbon School of Economics & Management
Universidade de Lisboa

MASTER

INNOVATION AND RESEARCH FOR SUSTAINABLITY

MASTER´S FINAL WORK

DISSERTATION

FUTURE-READY: ASSESSING STRATEGIC FORESIGHT IN GROWTH-STAGE STARTUPS ACROSS BRAZIL AND PORTUGAL

CAIO ARRUDA AMORIM DE ARAUJO

JANUARY - 2025

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“Somos lo que hacemos y
sobre todo lo que hacemos
para cambiar lo que somos”.

Eduardo Galeano

GLOSSARY

B2B – Business-to-Business.

EBITDA – Earnings Before Interest, Taxes, Depreciation, and Amortization.

FinTech – Financial Technology.

FMM – Foresight Maturity Model.

OECD – Organization for Economic Cooperation and Development.

PE – Private Equity.

SWOT – Strengths, Weaknesses, Opportunities, and Threats.

UI – User Interface.

UX – User Experience.

VC – Venture Capital.

VUCA – Volatile, Uncertain, Complex, and Ambiguous.

ABSTRACT, KEYWORDS AND JEL CODES

The acceleration of technological advancements and global market volatility demands that organizations, particularly growth-stage startups or scale-ups, develop robust strategies to anticipate future challenges. This study evaluates the strategic foresight maturity of scale-ups in Brazil and Portugal, addressing the guiding question: How future-proof are scale-up startups in these regions, and what factors contribute to their preparedness for future challenges? By leveraging a survey-based quantitative approach, this research assessed key dimensions—Personal Awareness, Capability, and Need Scores—across 25 respondents representing diverse roles and industries. The findings reveal that while these organizations exhibit moderately strong foresight capabilities, there are significant gaps in personal awareness of foresight concepts, a limited variety of information sources, and inconsistent cross-functional collaboration. The study also highlights a strong correlation between methodological sophistication and the ability to navigate uncertainties, underscoring the importance of adopting diverse foresight tools. Furthermore, a comparative analysis of Brazil and Portugal uncovered regional nuances: Brazilian scale-ups showed higher familiarity with foresight practices and greater methodological adoption, while Portuguese companies excelled in navigating regulatory frameworks and external environments. The research concludes that targeted interventions, such as training programs, diversified information gathering, and enhanced cross-departmental collaboration, are essential to bridge these gaps. Companies classified as "Vulnerable" require particular attention to align their capabilities with their high foresight needs. The study provides valuable insights into fostering foresight maturity, contributing to the resilience and adaptability of scale-ups amongst a volatile and complex global landscape.

KEYWORDS: Strategic Foresight; Growth-Stage StartUps; Scale-Ups; Innovation Strategies; Assessment; Future-Proofing.

JEL CODES: C83; G24; L26; M10; M13; O33.

TABLE OF CONTENTS

TABLE OF FIGURES

ACKNOWLEDGMENTS

First and foremost, I would like to express my sincere gratitude to Beatriz, whose support has been my anchor throughout this journey. You help my mind and my heart be at the best possible place to reach my best self, both intellectually and emotionally. Thank you for being my partner, my balance, and my constant source of strength.

I could never dream about taking this academic step without great examples by my side. I am deeply indebted to my mother, Vanderleia, whose determination and resilience have always been my greatest inspiration. Your example has been a guiding light, showing me the value of hard work, study, and perseverance in the face of challenges.

I am also grateful to my father, Emanuel, who not only inspired my academic aspirations but also provided the greatest advice possible on how to enjoy the process of developing this dissertation. Your example has been a key influence for my academic path, and I could not have done this without your insights.

Finally, I extend my sincere thanks to the friends and colleagues I have made in Portugal. I could never list all of them, but if you are reading this, know that I'm talking about you. This chapter of my life would have been far more challenging without you.

FUTURE-READY: ASSESSING STRATEGIC FORESIGHT IN GROWTH-STAGE STARTUPS ACROSS BRAZIL AND PORTUGAL

By Caio Arruda

1. INTRODUCTION

1.1. Overview of the Study

The acceleration of technological advancements and global market volatility highlights the importance for organizations to anticipate future challenges. This reality becomes even more dynamic when analyzed on the startup's ecosystem, where the root of organizations is mostly based on information technology. Strategic foresight turns as an important discipline to help these organizations navigate in the universe of fast changes and uncertainties.

This study focuses on assessing the future readiness of growth-stage startups, commonly referred as scale-ups, across Brazil and Portugal by understanding the role of strategic foresight in their unique context. These scale-ups, having already achieved product-market fit, focus on growing their operations and increasing their market share. At this moment, their ability to foresee and adapt to future market changes and technological disruptions can significantly impact their sustainability. By analyzing how strategic foresight is applied and integrated into the scale-ups' decision-making process, the study aims to assess their preparedness for future challenges, potentially leading to a sustainable growth.

Strategic, organizational, or corporate foresight are in a range of future-oriented research activities within organizations and can be used as synonymous (Rohrbeck & Schwarz, 2013). This research builds on existing literature, specifically the work of Rohrbeck (2010) and Rohrbeck & Kum (2018) which analyzed the impacts of corporate foresight on firm performance. By focusing on scale-ups in Brazil and Portugal, the study narrows the focus to a specific subset of companies that exist under high uncertainty, while also expands the geographical reach of the previous studies.

1.2. Research Objectives and Questions

The main objective of this research is to address the question: **"How future-proof are scale-ups startups in Portugal and Brazil, and what factors contribute to their preparedness for future challenges?"**.

To address this overarching question, the study is guided by the following sub-questions:

1. How is the level of awareness and familiarity with the concept of strategic foresight among the respondents?
2. What are the individual scale-ups needs for strategic foresight?
3. What existing capabilities do these scale-ups have to react to discontinuous change?

By answering these questions, the research aims to provide a comprehensive evaluation on how strategic foresight influences the future readiness of scale-ups in these regions.

1.3. Scope and Significance of the Study

This research focuses exclusively on technology startups that meet specific criteria: having most of their operations in Brazil or Portugal, having at least 200 employees, and receiving venture backing of at least US$10 million. These companies fit in the startup growth-stage definition (Y Combinator, 2022), also known as scale-ups, which, after finding the fit between their product and market needs, are now focused on growth and expansion. We believe that the concerns regarding future readiness and relevance of strategic foresight become more evident, as before the uncertainties were primarily centered on the company's viability.

The significance of this study lies in its potential to improve our understanding of the presence of strategic foresight beyond the corporate realm, particularly in fast-growing, young companies. It aims to demonstrate how strategic foresight might assist these scale-ups in mitigating risks related to future uncertainties. Furthermore, the findings could contribute to developing frameworks that assist these scale-ups in better preparing their systems and capacities for resilience and adaptability.

2. THEORETICAL FRAMEWORK AND DEFINITIONS

The dynamic and unpredictable nature of today's business environment demands that organizations adopt future-proof strategies to anticipate potential challenges. This is particularly important when operating under a volatile, uncertain, complex, and ambiguous environment, such as the tech sector lived by scale-ups. To remain competitive, these companies must adopt practices that enable them to foresee and adapt to future developments, contexts where foresight discipline can positively contribute. This chapter explores the concepts of strategic and corporate foresight, existing literature on how these capabilities can be assessed in companies, as well as the unique context and concepts related to scale-ups.

2.1. Strategic and Corporate Foresight

Gordon, Rohrbeck, & Schwarz (2019) detail that the term strategic foresight as a field has emerged since the 1950s. As their article "*Escaping the 'Faster Horses' Trap: Bridging Strategic Foresight and Design-Based Innovation*" describes:

> It was pioneered by the French "La Prospective" school (Godet & Durance, 2011), Herman Kahn at the U.S. Rand Corporation in the 1960s, Donella Meadows and the Club of Rome adaptation of systems modelling in the Limits to Growth study (Meadows, 1972) in the 1970s, a decade which also saw early success in use of scenario planning by Pierre Wack and Royal Dutch Shell (Wilkinson & Kupers, 2013). The tools and approaches of the emerging field were extensively categorized by Wendel Bell in the 1990s (Bell, 1997), while the case for foresight in company management thinking particularly was made by Hamel and Prahalad (1994).
>
> In: Gordon, Rohrbeck, & Schwarz (2019), p. 33-34.

As described by Tsoukas & Shepherd (2004), foresight is the ability to spot developments before they become trends, to see patterns before they fully emerge, and to grasp the relevant features of social currents that are likely to shape the direction of the future. Commonly mentioned as corporate foresight, it's used to support decision-making on long-term future topics in organizations (Rohrbeck & Schwarz, 2013). Corporate foresight is also used as a synonym with strategic and organizational foresight (Liebl & Schwarz, 2010).

The field has gained increased attention due to its relevance in addressing uncertainty in a volatile, uncertain, complex, and ambiguous (VUCA) world (Buder, 2021). Companies that have successfully implemented foresight practices often exhibit greater resilience, resulting in a positive impact on firm performance (Rohrbeck & Kum, 2018). A key component of foresight is the ability to anticipate discontinuous change and develop strategies that enable organizations to remain competitive despite significant shifts in the business environment (Rohrbeck & Schwarz, 2013).

Foresight methodologies such as scenario planning, horizon scanning, weak signals, and roadmapping play an important role in helping companies visualize potential future outcomes. Scenario planning, for example, involves identifying the causal factors and the scenario variables, which enables organizations to formulate strategy under conditions of uncertainty (Porter, 1985). The weak signals, when spotted and interpreted correctly, ensure the company maintains and even increases its competitiveness (Ansoff, 1975). Even when applied without understanding the underlying theory, these tools build the foundations of strategic foresight in organizations, guiding them in periods of high uncertainty.

In the previous years, we saw different authors exploring frameworks on how to achieve the best practices (Grim, 2009), the future orientation of organizations (Rohrbeck, 2010), ways on how to assess the value contribution of strategic foresight to organizations (Rohrbeck & Schwarz, 2013) (Rohrbeck & Kum, 2018), alongside the main roles involved to enhance the innovation capacity of firms (Rohrbeck & Gemünden, 2011). This literature production seems to aim for a more practical connection between the theoretical principles of foresight and their tangible impact on organizational performance.

As Grim (2009) describes, measurement is a foundational component of scientific inquiry, and by looking for a way to measure foresight in organizations, the Foresight Maturity Model (FMM) was developed. It is a framework for a quantitative assessment of current practices that allows organizations to make more informed decisions on priorities and investments in foresight practices, while helping them to define the incremental improvements to their foresight activities (Grim, 2009). The model is structured in six disciplines:

- Leadership: Helping organizations to translate foresight into action on an ongoing basis.
- Framing: Helping the organization identify and solve the right problems.
- Scanning: Helping organizations to understand what's going on in their immediate environment and in the world at large.
- Forecasting: Helping organizations consider a range of future possibilities.
- Visioning: Helping organizations decide what they want in the future.
- Planning: Helping people develop plans, people, skills, and processes that support the organization's vision.

Each one has a subset of practices, actionable and specific activities, that vary from six different maturity indicators associated with each maturity level—ad hoc, aware, capable, mature, and world-class.

Rohrbeck (2010) also produces different literature on the "foresight measurement" field. In his article "Maturity levels of horizon scanning: Assessing organizational future orientation," he presents a detailed framework for evaluating an organization's capability to identify successful means to detect and anticipate discontinuous or radical change—a critical component of corporate foresight. This framework outlines five capabilities that, when evaluated against the organization's context and its need for strategic foresight, can indicate whether the organization is vulnerable (high need, low capability), vigilant (high need and high capability), focused (low need and low capability), or neurotic (low need and high capability). Lastly, the framework also assesses what kind of outcome or value contribution has been created by the foresight activities, analyzing the impact into four different categories.

A few years later, after running a longitudinal research design to measure future preparedness in 2008, Rohrbeck & Kum (2018) evaluated the impact of these firms' performance in 2015. This time, to measure corporate foresight, a revision of Rohrbeck's maturity model was made while maintaining the core elements, such as the assessment of the need for corporate foresight. Their maturity level, now with five practices—information, networks, people, methods, culture, and organization—split into three processes: perceiving, prospecting, and probing. To measure firms' performance, profitability, measured as company EBITDA, and market capitalization growth,

operationalized as the market valuation difference between 2008 and 2015, were used. The research showed that future-prepared companies (vigilant) had a significantly higher likelihood of making it to the group of industry outperformers. Not only that, but vigilant companies had a 33% higher profitability and a 200% higher market capitalization growth when compared with the sample average. Companies with future preparedness deficiencies faced profitability discounts, when compared to vigilant ones, from 37% to 44%, and a higher one on market capitalization, ranging from -49% to -108%.

These findings go in line with earlier discoveries done by Rohrbeck and Schwarz (2013). Their study aimed to identify and better understand the value contribution of strategic foresight activities through an empirical investigation with large European companies. The research showed that, when formal strategic foresight activities are implemented, the firm can expect three contributions: (1) an enhanced perception, (2) an enhanced ability to interpret change, and (3) an enhanced ability to propose responses, alongside an enhanced capacity for organizational learning and influencing others. The first one was the most notable one, where companies reported value contribution through (1) gaining insights into changes in the environment or (2) reducing uncertainty.

Although the concept of a specialized team focused on strategic foresight may be expected, Rohrbeck & Schwarz (2013) emphasize the need for collaboration across all organizational levels to effectively tackle foresight activities. Grim (2009), in the Foresight Maturity Model, emphasizes the need for broad engagement, positioning foresight as an integral aspect of corporate culture rather than limiting it to a certain job or department.

In their paper “Corporate Foresight: Its Three Roles in Enhancing the Innovation Capacity of a Firm,” Rohrbeck & Gemünden (2011) identify three critical roles that foresight can play in enhancing innovation capacity—initiator, strategist, and opponent. These roles could be interpreted not only as functions of a formal foresight implementation but also as individual contributions that employees across the organization can make. The initiator could be seen as the one who sparks innovation by identifying emerging trends and new opportunities; the strategist would be the one providing direction, aligning innovation efforts with long-term goals, and assessing the competitive landscape; and the opponent would be the one challenging existing

assumptions and exploring potential disruptions that might endanger ongoing and future innovations. This approach could suggest how collaboration across different organizational levels and broad engagement can be achieved.

The relevance of strategic foresight for organizations, especially in fast-changing industries such as technology, has been widely discussed in the literature. For instance, Day & Schoemaker (2006) highlight that corporate foresight practices allow companies to detect weak signals, explore them, and pursue opportunities ahead of the competition or recognize the early signs of trouble before they escalate into major problems. Similarly, Rohrbeck & Kum (2018) found that firms that employ foresight practices experience improved long-term performance and greater adaptability in the face of change. This research builds on these insights by expanding the foresight application to scale-ups in Brazil and Portugal, analyzing how these fast-paced and agile companies prepare for the future using foresight.

2.2. Understanding Scale-Ups, Startups in Growth Stage

A startup is typically defined as a young, early-stage company that seeks to develop an innovative business model, often operating in conditions of extreme uncertainty (Ries, 2011). Startups are characterized by their focus on rapid experimentation, market validation, and the search for product-market fit, which refers to the point where a company's product properly satisfies the target market, such that the market embraces the product (Boyles, 2023). Globally, it's common and in some cases expected that startups receive a considerable amount of funding from venture capital (VC) and private equity (PE) firms; venture funding achieved over US$65 billion in the second quarter of 2024 (CB Insights, 2024).

To comprehend the utilization of money by startups, it is essential to get familiar with the startup life cycle. From the initial phases of ideation and conceptualization to the later stages of exponential development and substantial profits, each phase is financed with different amounts and from diverse sources. There are different ways to describe the startup stages, and they often correspond to fundraising rounds, allowing externals to track a company's stage and growth via their funding announcements. The first one is known as the seed stage, which is the riskiest and most dynamic one, followed by Series A. Here, startups have a working product and are moving closer towards product-market

fit if they haven't yet found it. Then there is the growth stage, also known as Series B and C, when the startup has already identified product-market fit and typically focuses on user growth and scalability. By the time a startup reaches Series D, E, F, etc., they're at the scale stage, and the company has established itself as a strong player in their space. (Y Combinator, 2024)

Once the startup has successfully achieved product-market fit, established a scalable business model, and is now focused on scaling operations, it can be defined as a scale-up and represent a unique subset of startups (Autio, 2016). These companies typically face a different set of challenges compared to early-stage startups as they transition from survival to growth (Y Combinator, 2024). According to the Organization for Economic Cooperation and Development (OECD, 2022), scale-ups are high-growth firms that experience an annual growth rate of 20% at the beginning of a three-year period.

The distinction between startups and growth-stage startups or scale-ups is crucial, as the latter have already demonstrated market traction, rapid expansion, and scalability capabilities. At this stage, the risk is reduced because the company has already established itself as a significant player in their industry (Y Combinator, 2024). Scale-ups operating in the technology sector are particularly vulnerable, as they differ from traditional organizations in terms of unpredictability and non-linearity (Cavallo, Ghezzi, Dell'Era, & Pellizzoni, 2019). In this context, strategic foresight becomes extremely relevant, as the market where startups play typically presents a "winner-take-all" dynamic, where one firm eventually dominates the sector, and early leadership can be decisive for long-term success (Autio, 2016).

Venture capital and private equity are crucial in providing the necessary resources to scale operations, expand markets, and innovate. However, this dependency on external funding brings additional pressure to achieve aggressive growth targets while ensuring operational efficiency. Different than early-stage startups, which often have more flexibility for experimentation and testing as they did not achieve product-market fit yet, scale-ups must balance growth with profitability to satisfy investor expectations. (Cavallo, Ghezzi, Dell'Era, & Pellizzoni, 2019)

Moreover, as scale-ups expand, their organizational complexity increases, which would be expected from any organization. We can understand organizational complexity

as the degree of differentiation within the entities that constitute an organization (Dooley, 2002). This shift from a small, agile team to a larger, more structured organization requires robust systems for managing talent, processes, and product development. It's expected that a scale-up will have around a few hundred employees, being also common to have examples around the thousand (Beauhurst, 2022). By having more people, the potential inputs into the innovation process, as well as individuals acting as contributors to the perceiving step of strategic foresight, increase. At the same time, thanks to the exponential increase of different communication channels, described in Brooks's law, communication overhead starts to limit the value generation expected by the addition of more manpower (Berkun, 2006).

Furthermore, scale-ups must be prepared to compete on a global stage as they expand their operations beyond local markets. Internationalization often becomes a critical growth strategy, but it also brings challenges such as adapting to different regulatory environments, understanding new customer segments, and managing operations in multiple locations simultaneously. Uber faced different regulatory challenges in different countries as it expanded internationally, exemplifying the complexities scale-ups face when navigating foreign legal landscapes. For instance, in the United Kingdom and Germany, Uber faced multiple legal disputes with local authorities, resulting in temporary suspensions due to concerns over safety standards and compliance with local transportation regulations (Reuters, 2021). Airbnb has also faced similar issues since its beginning, receiving fines from local authorities when expanding globally and still, ten years later, seeing itself in similar situations (Coldwell, 2014) (Barnes & Kazmin, 2023).

Lastly, being born in a digital context presents both opportunities and challenges for scale-ups. On one hand, technology enables scale-ups to increase their market, reaching new customers while maintaining low operational costs and being able to innovate rapidly. On the other hand, the fast pace of technological change creates uncertainty and the constant need to adapt (Torres, 2023). As a modern example, Pebble was an early innovator in the smartwatch market, gaining significant attention via a successful Kickstarter campaign. However, it struggled to keep up with the technological advancements made by bigger players like Apple once they entered the smartwatch market (Steele, 2016).

Both Brazil and Portugal have seen significant growth in their startup ecosystems over recent years, with government initiatives and private investments supporting the rise of innovative and high-growth startups. In Brazil, the startup scene has expanded rapidly; the FinTech (Financial Technology) sector, for instance, received 40% of the total investments in 2021, driven by a large domestic market and an increasing digitalization of citizens (Bakker & Thijssen, 2022). The Brazilian government, via programs like Startup Brasil and InovAtiva Brasil, has been working to support early-stage startups. At the same time, scale-ups can count on programs like StartOut Brasil from Apex Brasil, the Brazilian Trade and Investment Promotion Agency, to access international markets and the Scale-Up program from Endeavor to access a strong entrepreneurial network and accelerate company growth (Apex Brasil, 2024) (Endeavor Brasil, 2024).

In Portugal, the startup ecosystem has also gained significant attention, especially in Lisbon, which has become a hub for tech startups (Bannerman, 2022). Government initiatives such as Startup Portugal and funding programs under PT2030 aim to foster entrepreneurship and accelerate the growth of startups through tax incentives, funding opportunities, and access to European markets (Startup Portugal, 2024) (PT2030, 2024). The focus on scale-ups is so evident that in 2022 the local government of Lisbon changed its main startup program from Startup Lisboa to Unicorn Factory Lisboa. The Lisbon government launched the ScalingUp Program in 2023, describing it as the first Portuguese acceleration program for growth-stage startups, which impacted 40 scale-ups with over 1,300 employees (Unicorn Factory Lisboa, 2024).

In both Brazil and Portugal, the start-up ecosystem is growing rapidly, with several government initiatives aimed at fostering entrepreneurship and supporting fast-growing companies (Arruda, Nogueira, & Costa, 2013) (PT2030, 2024). However, scale-ups face significant challenges such as scalability and navigating regulatory frameworks, particularly as many of them aim to offer company shares to the public for the first time (Y Combinator, 2024). Developing and establishing structures for predictable growth reveals another challenge (Forbes Finance Council, 2020), making strategic foresight even more important to ensure long-term sustainability and navigate in these volatile, uncertain, complex, and ambiguous environments.

3. METHODOLOGY: FUTURE PROOF ASSESSMENT

This section outlines the methodological approach adopted to evaluate the future readiness of scale-ups in Brazil and Portugal. The study focuses on the application of strategic foresight practices, tools, and methods to assess key dimensions of foresight maturity within the respondents' organizations. A survey-based quantitative assessment was used as the primary data collection method, designed to gather insights that would later be transformed into personal awareness levels of respondents, the capability score of their organizations, and the perceived foresight needs within their company context.

By analyzing the collected answers, the methodology aimed to provide a comprehensive understanding of how scale-ups engage with foresight practices, regardless of knowing or not what it is about, and identify areas for improvement. The goal was to get an idea of how scale-ups in Brazil and Portugal described their market scenario and equip themselves to anticipate and adapt to emerging trends, risks, and uncertainties in dynamic environments.

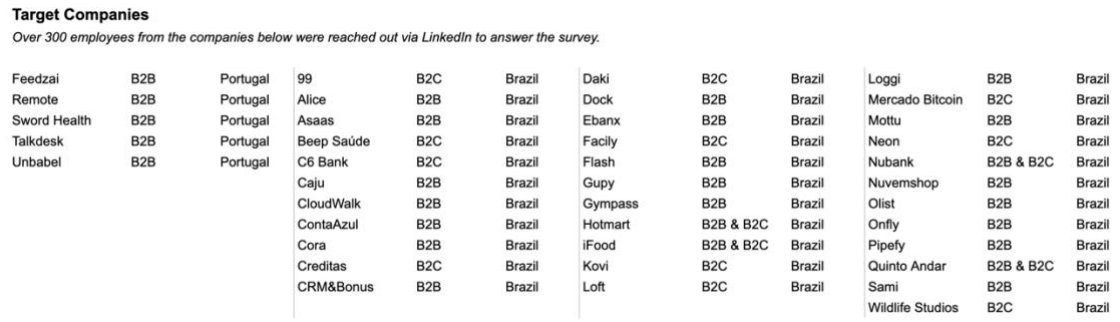
3.1. Research Design

The research was based on a quantitative design, using a structured survey distributed to employees of growth-stage startups in Brazil and Portugal. The survey aimed to assess key dimensions of foresight within the respondents' organizations: **Personal Awareness Score**, **Capability Score**, and **Need Score**. These dimensions were developed on top of prior research done by Rohrbeck (2010) and Rohrbeck & Kum (2018), incorporating recommendations outlined in the latest. As part of these recommendations, the survey responses were also categorized into three strategic archetypes—**Defender**, **Analyzer**, or **Prospector**—as defined by Miles, Snow, Meyer, & Coleman (1978), to provide additional context regarding the organizations' strategic orientations.

As target audience, 39 companies that meet our scale-up criteria were mapped, being 34 from Brazil and 5 from Portugal. Similarly to other studies, the social media network LinkedIn, self-described as the world's largest professional network, was used to acquire survey participants, resulting in over 300 individuals contacted (Schwarz, Wach, & Rohrbeck, 2023). The outreach included personalized messages explaining the purpose of the research and the significance of their participation. Respondents represented

diverse roles within their organizations, from C-level to individual contributors, ensuring a broad perspective of their unique realities.

FIGURE 1 – Target Companies.



Target Companies

Over 300 employees from the companies below were reached out via LinkedIn to answer the survey.

Feedzai	B2B	Portugal	99	B2C	Brazil	Daki	B2C	Brazil	Loggi	B2B	Brazil
Remote	B2B	Portugal	Alice	B2B	Brazil	Dock	B2B	Brazil	Mercado Bitcoin	B2C	Brazil
Sword Health	B2B	Portugal	Asaas	B2B	Brazil	Ebanx	B2B	Brazil	Mottu	B2B	Brazil
Talkdesk	B2B	Portugal	Beep Saúde	B2C	Brazil	Facily	B2C	Brazil	Neon	B2C	Brazil
Unbabel	B2B	Portugal	C6 Bank	B2C	Brazil	Flash	B2B	Brazil	Nubank	B2B & B2C	Brazil
			Caju	B2B	Brazil	Gupy	B2B	Brazil	Nuvemshop	B2B	Brazil
			CloudWalk	B2B	Brazil	Gympass	B2B	Brazil	Olist	B2B	Brazil
			ContaAzul	B2B	Brazil	Hotmart	B2B & B2C	Brazil	Onfly	B2B	Brazil
			Cora	B2B	Brazil	iFood	B2B & B2C	Brazil	Pipefy	B2B	Brazil
			Creditas	B2C	Brazil	Kovi	B2C	Brazil	Quinto Andar	B2B & B2C	Brazil
			CRM&Bonus	B2B	Brazil	Loft	B2C	Brazil	Sami	B2B	Brazil
									Wildlife Studios	B2C	Brazil

The survey included a range of close-ended questions designed to collect responses using a 7-point Likert scale. These questions were derived from existing frameworks in foresight literature, but mostly from Rohrbeck's Corporate Foresight Framework (2010), which emphasizes the importance of capability building and need identification in promoting strategic foresight practices. To ensure clarity, each question included descriptions for its minimum and maximum values, along with prior instructions, to help respondents accurately assess their reality based on the scale. Additionally, open-ended, single-selection, and multi-selection questions were incorporated to capture specific insights that could not be mapped through the Likert scale. The questions were segmented into key categories—**demographics**, **personal awareness**, **context analysis**, and **capabilities mapping**—each with relevant subcategories to facilitate comprehensive data collection.

The collected data was analyzed using Python and Excel, with a focus on calculating aggregate scores for each respondent and identifying trends across the sample. The key outputs included scatterplots representing the relationship between the Capability Score and Need Score, overlaid with quadrants labeled **Vulnerable**, **Vigilant**, **Focused**, and **Neurotic** to contextualize the foresight reality of each organization. The Personal Awareness Score was represented by the size of each plot, while color distinctions indicated whether the response came from Brazil or Portugal. Additionally, different icons were used to represent the Nature of Strategy—Defender, Analyzer, or Prospector—of the respondents' companies, providing further insights into their strategic orientations.

3.2. Assessment Framework

The assessment framework employed in this study evaluates foresight maturity across three primary dimensions: Personal Awareness Score, Capability Score, and Need Score. Additionally, the analysis integrates two contextual factors: the Nature of Strategy and the Country where respondents' organizations mostly operate, providing a richer understanding of the results within distinct strategic and geographical contexts.

1. **Personal Awareness Score**: This dimension measures respondents' familiarity with and understanding of strategic foresight practices. Questions in this category assessed the extent to which individuals recognized long-term future trends' importance and familiarity with strategy foresight concepts and terms.
2. **Capability Score**: This dimension evaluates an organization's ability to operationalize foresight practices. It focuses on the presence of systems, tools, and processes that enable the company to anticipate and prepare for future challenges, and it was distributed into six subcategories grouped into the three Ps of Corporate Foresight:
    a. Perceiving: Information Usage, People, Networks.
    b. Prospecting: Methods Sophistication, and Culture.
    c. Probing: Organization.
3. **Need Score**: This dimension captures the perceived environment complexity, volatility, and hostility that their organizations are in. This leads to a perception of how much strategic foresight practices are demanded in such a context.
4. **Nature of Strategy**: This dimension analyzes the strategic orientation of organizations, which can be:
    a. Prospectors: Characterized by their focus on innovation and exploration of new business opportunities, typically adopting a risk-taking approach.
    b. Analyzers: Balance risk-taking with a more conservative approach, strategically maintaining stability while exploring new opportunities in select areas.

c. Defenders: Prioritize maintaining their current market position and focus on efficiency and stability rather than exploring new areas.

5. **Country**: The geographical context of respondents' organizations—Brazil and Portugal—was analyzed to consider potential regional variations in foresight maturity, even though it is not the primary goal of the research.

The survey was carefully designed to capture a comprehensive dataset, combining both quantitative and qualitative insights. It included four main categories, each segmented into subcategories, to ensure detailed and structured data collection. The categories were the following:

1. **Demographics**: Focused on the respondent's details, such as role, and organizational size.
2. **Personal Awareness**: Assessed individual familiarity with foresight concepts and tools.
3. **Context Analysis**: Explored external factors influencing the organization, including market dynamics and technological trends.
4. **Capabilities Mapping**: Evaluated the maturity and effectiveness of foresight-related tools and practices within the organization.

Each category included multiple questions, most of which were structured on a 7-point Likert scale to allow for nuanced responses. Open-ended, single-selection, and multi-selection questions were also employed to gather qualitative insights and address aspects unsuitable for the Likert format. The survey questions are detailed in the appendices, organized by category, providing transparency and facilitating replication.

To analyze these dimensions, Python scripts were utilized to transform data into a visual representation of the current scenario. The result was a scatterplot, with the x-axis representing the Capability Score and the y-axis representing the Need Score. Each quadrant of the scatterplot represented a specific category:

1. **Vulnerable**: Low Capability, High Need.
2. **Vigilant**: High Capability, High Need.
3. **Neurotic**: High Capability, Low Need.
4. **Focused**: Low Capability, Low Need.

This categorization allowed for a nuanced interpretation of the data, highlighting areas where organizations excelled in foresight practices and where improvements were necessary. By integrating these scores with the insights from the unique survey responses, the assessment framework provides a comprehensive evaluation of foresight maturity among growth-stage startups.

This categorization allowed for a nuanced interpretation of the data. Organizations categorized as Vigilant or Focused typically require no immediate changes to their horizon scanning systems, as their foresight capabilities align with their strategic needs. However, organizations classified as Neurotic should evaluate whether all their horizon scanning activities are necessary to ensure resources are effectively allocated. For those categorized as Vulnerable, the capability dimensions can offer a roadmap to enhance their horizon scanning systems, providing targeted recommendations for improving their foresight practices (Rohrbeck, 2010).

4. RESULTS ANALYSIS

This section analyzes the precise findings of the data collected from 25 participants across different growth-stage startups in Brazil and Portugal between November and December of 2024. The survey took an average of 10 to 15 minutes to be finished, and resulted in 29 answers collected, with 4 that didn't meet the defined criteria to be considered a scale-up—at least 200 employees and receiving venture backing of at least US$10 million—hence, they were excluded from the valid sample. The analysis evaluates the direct answers, calculates the Personal Awareness Score, Capability Score, and Need Score, and analyzes them while incorporating contextual elements such as Nature of Strategy and Country. The findings highlight trends, differences between the two countries, and areas of opportunity to improve strategic foresight maturity.

The overall average calculated from the survey is described in the "AVG" column, alongside the standard deviation (STDEV), maximum (MAX), and minimum (MIN). Answers were also mapped out for Brazilian (BRA) and Portuguese (PRT) respondents. Section scores, such as the Environmental Complexity Score, are calculated based on the average values.

FIGURE 2 – Results Section I Personal Awareness & II Context Analysis.

		AVG			STDEV			MAX			MIN		
		ALL	BRA	PRT	ALL	BRA	PRT	ALL	BRA	PRT	ALL	BRA	PRT
II	**Personal Awareness**												
1.	**Your Understanding**												
1.1.	How familiar are you with the concepts of Strategic Foresight and Horizontal Scanning?	2.64	3.11	1.43	1.70	1.75	0.79	6	6	3	1	1	1
1.2.	How familiar are you with terms related to Strategic Foresight, such as Scenario Planning, Weak Signals, Black Swans, Wild Cards, Megatrends, Horizon Scanning, and Delphi Method?	3.04	3.22	2.57	1.57	1.44	1.90	6	5	6	1	1	1
1.3.	How relevant to your company's success do you believe the analysis of long-term future trends is?	5.88	5.83	6.00	1.05	1.04	1.15	7	7	7	3	3	4
	Personal Awareness Score (Add Numbers):	**11.56**	**12.17**	**10.00**									
III	**Context Analysis**												
1.	**Nature of Strategy**												
1.1.	How would you describe your company's approach to market positioning?	5.00	5.44	3.86	1.53	1.29	1.57	7	7	6	2	3	2
1.2.	How would you describe your company's approach to innovation and risk-taking?	4.88	5.17	4.14	1.56	1.50	1.57	7	7	6	2	2	2
1.3.	How does your company prioritize operational efficiency compared to exploring new opportunities?	4.16	4.33	3.71	1.46	1.50	1.38	6	6	6	2	2	2
1.4.	Which of the following best describes your company's strategic focus?	4.16	4.00	4.57	1.77	1.85	1.62	7	7	6	1	1	2
	Nature of Strategy (Add Numbers):	**18.20** Prospector	**18.94**	**16.29** Analyzer									
2.	**Environmental Complexity**												
2.1.	How would you describe the industry space your company is in?	4.68	4.72	4.57	1.93	2.08	1.62	7	7	6	2	2	2
2.2.	How would you describe the distribution channel and operational structure of your company?	5.20	5.28	5.00	1.41	1.64	0.58	7	7	6	2	2	4
2.3.	How strongly is your company affected by governmental decisions?	4.48	4.33	4.86	1.92	1.97	1.86	7	7	7	1	1	2
2.4.	How would you describe the public visibility of the industry your company is in?	4.76	4.78	4.71	1.16	1.31	0.76	7	7	6	3	3	4
	Environmental Complexity Score (Add Numbers):	**19.12**	**19.11**	**19.14**									
3.	**Environmental Volatility**												
3.1.	How strongly has your company been affected by major changes in the industry environment in the past three years?	5.48	5.39	5.71	1.29	1.46	0.76	7	7	7	2	2	5
3.2.	How strongly is your company influenced by the world economy?	5.28	5.17	5.57	1.10	1.25	0.53	7	7	6	3	3	5
3.3.	How would you describe the speed of technological change in your industry sector?	5.20	5.44	4.57	1.58	1.62	1.40	7	7	7	2	2	3
3.4.	How would you describe the technological development in your company's industry sector?	5.24	5.39	4.86	1.45	1.42	1.57	7	7	7	2	2	3
3.5.	How would you describe the company's stakeholder (competitors, contractors, customers, etc.) behavior?	4.36	4.44	4.14	1.58	1.69	1.35	7	7	6	1	1	3
	Environmental Volatility Score (Add Numbers):	**25.56**	**25.83**	**24.86**									
4.	**Environmental Hostility**												
4.1.	How would you describe the level of risk of the external environment within your company is in?	4.00	4.17	3.57	1.19	1.10	1.40	7	7	6	2	2	2
4.2.	How would you describe your company's ability to influence and navigate the external environment?	4.52	4.39	4.86	1.08	0.98	1.35	7	6	7	3	3	3
	Environmental Hostility Score (Add Numbers)	**8.52**	**8.56**	**8.43**									
	Need Score (Envir. Complexity Score + Envir. Volatility Score + Envir. Hostility Score):	**53.20**	**53.50**	**52.43**									

FIGURE 3 – Nature of Strategy Classification

Nature of Strategy	
Score Range	Classification
[4, 8]	Defender
[9, 16]	Analyzer
[17, 28]	Prospector

Example: If the Nature of Strategy Score is 14, the company is classified as Analyzer.

FIGURE 4 – Results Section IV Capabilities Mapping.

		AVG			STDEV			MAX			MIN		
		ALL	BRA	PRT	ALL	BRA	PRT	ALL	BRA	PRT	ALL	BRA	PRT
IV	**Capabilities Mapping**												
1.	**Information Usage**												
1.1.	To what extent does your company gather and use information to take strategical decisions?	5.16	5.44	4.43	1.37	1.38	1.13	7	7	6	2	2	3
1.2.	How would you describe the time horizon your company looks at?						*Not Applicable*						
1.3.	How would you describe the variety of sources your company uses to gather information to take strategical decisions?	4.36	4.44	4.14	1.47	1.62	1.07	7	7	5	1	1	3
	Information Usage Score (Add Numbers):	**9.52**	**9.89**	**8.57**									
2.	**People**												
2.1.	How would you describe the importance of internal network given by your company?	5.04	5.61	3.57	1.65	1.54	0.79	7	7	5	2	2	3
2.2.	How would you describe the importance of external network given by your company?	5.00	5.28	4.29	1.38	1.41	1.11	7	7	6	3	3	3
	People Score (Add Numbers):	**10.04**	**10.89**	**7.86**									
3.	**Network**												
3.1.	How fast is information about future trends and potential changes in the industry diffused through the company?	4.64	4.94	3.86	1.96	1.95	1.86	7	7	6	1	1	1
3.2.	How would you describe the diffusion of information about future trends and potential changes in the industry through the company?	4.84	5.06	4.29	1.68	1.63	1.80	7	7	7	1	1	1
	Network Score (Add Numbers):	**9.48**	**10.00**	**8.14**									
4.	**Methods Sophistication**												
4.1.	How effectively does your company use methods and tools to combine market insights and technological changes to take strategic decisions?	4.24	4.50	3.57	1.67	1.65	1.62	7	7	5	1	1	1
4.2.	How clear are the future risks, opportunities, and uncertainties your company faces or expects to face?	4.52	4.78	3.86	1.36	1.26	1.46	7	7	5	1	2	1
4.3.	Which of the following tools and methods does your company use to approach future risks, opportunities, and uncertainties related to the external environment? Select all applicable ones *(Number of options selected set as answer for this table)*	3.32	3.83	2.00	2.34	2.38	1.73	8	8	4	0	0	0
	Methods Sophistication Score (Add Numbers)	**12.08**	**13.11**	**9.43**									
5.	**Culture**												
5.1.	How effectively is information and vision of the future shared across functions and hierarchical levels in your company?	4.96	5.22	4.29	1.34	1.22	1.50	7	7	5	1	3	1
5.2.	How would you describe the readiness to listen to external sources within your company?	4.76	4.89	4.43	1.30	1.18	1.62	7	7	6	1	3	1
5.3.	How would you describe the company's attitude towards the external environment?	5.04	5.06	5.00	1.40	1.43	1.41	7	7	6	1	1	2
5.4.	How would you describe the company's attitude to test and challenge basic assumptions?	4.68	4.83	4.29	1.57	1.65	1.38	7	7	6	1	1	2
	Culture Score (Add Numbers):	**19.44**	**20.00**	**18.00**									
6.	**Organization**												
6.1.	How does your company choose methods or approaches for gathering insights and solving problems?	3.96	4.22	3.29	1.62	1.59	1.60	7	7	6	1	1	1
6.2.	How strong is the collaboration with other departments or areas when applying methods or approaches for gathering insights and solving problems?	4.12	4.50	3.14	1.99	1.98	1.77	7	7	6	1	1	1
6.3.	How formal and consistent is the process of sharing and discussing emerging issues, trends or insights within your company?	4.28	4.50	3.71	1.51	1.54	1.38	7	7	5	1	1	1
6.4.	How is responsibility for detecting emerging issues, trends and insights assigned within your company?	4.44	4.56	4.14	1.50	1.50	1.57	7	7	6	1	2	1
	Organization Score (Add Numbers):	**16.80**	**17.78**	**14.29**									
	Capability Score (Information Usage Score + People Score + Network Score + Methods Sophistication Score + Culture Score + Organization Scores):	**77.36**	**81.67**	**66.29**									

4.1. Profiles of Respondents and Their Organizations

The survey targeted employees of scale-ups meeting the defined criteria, with the option to disclose their company name. Of the 25 valid responses, 12 included their company name. While some companies may appear in different responses, the decision was made to focus on the individual perspectives, recognizing that employees from the same organization can have different views about their environment rather than combining multiple answers from the same company into a single source. Furthermore, to address concerns over confidentiality, company names have been suppressed from the analysis, as some respondents expressed hesitation about having their company's name exposed. Because multiple employees from the target companies were reached out, the

dataset likely includes at least one company whose view was capture by over one respondent.

The respondents represented a diverse range of roles, with 44% identifying as Product Managers. Other roles included UX/UI Designers, Customer Success Managers, C-Level Executives, and nine additional positions, ensuring a broad spectrum of perspectives, including both strategic and operational responsibilities. 72% of respondents reported having at least three years of experience in the startup ecosystem, adding depth to their insights.

The company industry was diverse across 13 industries, with FinTech standing out as the most represented sector, accounting for 32% of respondents. Nearly 90% of the companies have been operating for at least five years, and 80% reported having more than 500 employees. Regarding growth stage, 64% of respondents identified their companies as being in the "Growth stage (Scaling product/product portfolio)" while the remaining 36% categorized their organizations as "Mature stage (Established)." Additionally, all respondents said that their company has a clear purpose, 88% confirmed that their company has a long-term strategic vision, and 72% indicated that there's a dedicated team or department handling uncertainties, risks, and strategic management. It all reflected the growing emphasis on addressing complex challenges within these organizations.

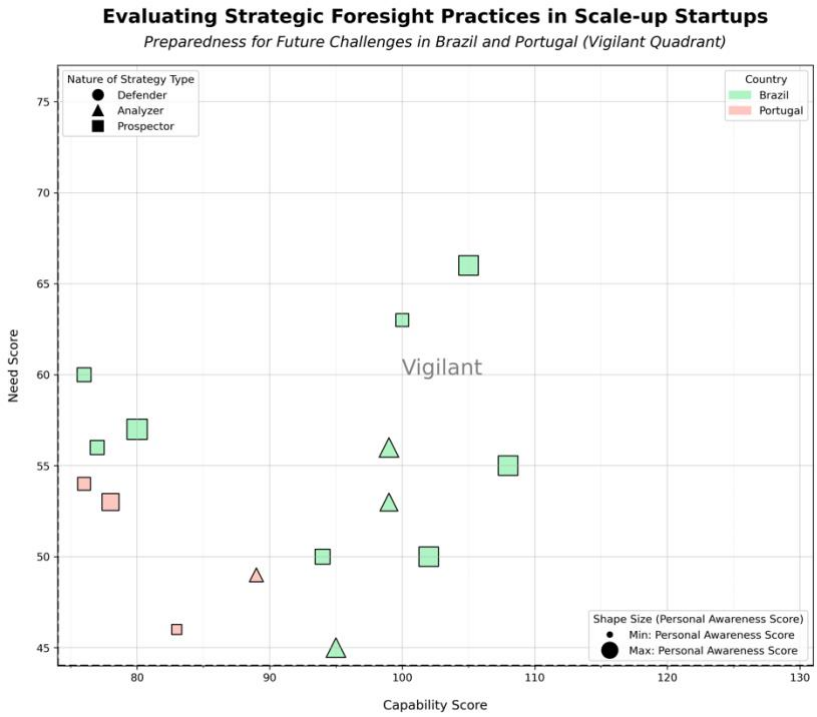
FIGURE 5 – Scatterplots of Survey Results.

4.2. Analysis of Findings

All respondents confirmed prior experience in the startup or scale-up ecosystem, indicating a population well-versed with the unique dynamics of the tech sector. However, familiarity with strategic foresight and horizon scanning concepts was relatively low, with an average score of 2.64 on a 1-to-7 Likert scale (used throughout unless stated otherwise). A similar trend was observed for terms related to strategic foresight, which scored an average of 3.04.

Despite this limited familiarity, respondents recognized the importance of long-term trend analysis, scoring an average of 5.88. This suggests a considerable awareness of foresight's relevance, even among individuals less familiar with its formal concepts. When examining the Personal Awareness Score, which aggregates these insights, the overall average was 11.59, within a possible range of [5, 25]. Given that the standard deviation for personal awareness questions ranged between 1.05 and 1.70, this result can be interpreted as medium to low, indicating room for improvement in respondents' foresight awareness and understanding.

FIGURE 6 – Vigilant Quadrant.



It was also noticeable that there was a positive correlation between the Personal Awareness Score and the Capability Score, which will be analyzed in more depth later. The correlation analysis returned +0.5103 (r) on respondents' Personal Awareness Score, and the companies Capability Score—P-Value is 0.009153 for a sample (N) of 25.

From the respondents' answers, it's noticeable that their level of familiarity with strategic foresight concepts are, on average, low. However, most of them recognize the importance of long-term trend analysis. The correlation between the number of methods used by a company and the personal awareness can indicate that the more methods, tools, and processes are in place to deal with risks and uncertainties, the more employees are aware of strategic foresight concepts, terms and relevancy.

4.2.1. Context Analysis

The strategic orientation of companies showed notable patterns, which aligns with expectations for the technology sector. Among respondents, 68% of firms were classified as Prospectors, characterized by a strong focus on innovation and risk-taking, actively exploring and expanding into new business opportunities—an approach often expected from tech companies aiming for exponential growth. The second largest group was Analyzers, made up of 28% of respondents, representing a balance between risk-taking

and a conservative approach to strategy. Lastly, only one respondent's organization was classified as a Defender, a more conservative approach focused on maintaining a stable market position. This outlier provides an intriguing case that will be further commented on.

The results from the Nature of Strategy section align closely with findings from the environmental assessment questions. The scatterplots reveal that most responses were positioned in the upper sections, indicating a high Need Score. This suggests these companies perceive their environments as highly volatile, uncertain, and complex, requiring strategic approaches oriented towards risk-taking and adaptability.

Respondents consistently described their business environments as medium to high complexity. This reflects challenges such as numerous competitors, long and intricate distribution channels, significant influence from governmental decisions, and high public visibility within their industries. In particular, the question related to distribution channels had the highest average score within this category, emphasizing the complexities of delivering products, which is logical given that most of the target companies are in the B2B (business-to-business) industry.

Among the components of the Need Score, environmental volatility recorded the highest average score of 5.11. This reflects the dynamic nature of the external environment, where companies must continuously adapt to technological advancements and industry shifts. In contrast, interactions with stakeholders appeared more stable and predictable, with the lowest average score of 4.36 within this section. Other factors, such as the speed of technological change and recent industry developments over the past three years, showed consistent averages ranging between 5.0 and 5.5, highlighting moderate to high volatility across these dimensions.

Environmental hostility, on the other hand, exhibited the lowest overall scores among the environmental factors. Risks associated with the external environment were rated as medium to low, with an average score of 4.00. When asked about their organizations' ability to influence and navigate external challenges, respondents indicated a slightly higher average of 4.52, suggesting a reasonable level of confidence in managing external risks despite the relatively stable risk landscape.

These results translate into an average Need Score of 53.20, on an [11, 77] scale, reflecting the significant pressures these companies face to adapt and innovate in their respective environments. The numerous competitors and long and intricate distribution channels volatility make it more complex, and the need to adapt to technological advancements and industry shifts contributes to a more volatile environment. It all underscores the urgency for robust foresight practices and strategic adaptability, which were partially present among respondents.

4.2.2. Capabilities Mapping

The analysis of capabilities uncovered interesting findings, visible by the companies' cluster on the right side of the scatterplot, indicating higher Capability Scores. This suggests that many organizations possess moderately strong systems, tools, and networks for leveraging foresight practices, though significant variations remain across the dimensions analyzed.

Respondents reported an average score of 5.16 for information gathering, indicating a moderately strong ability to access and utilize information for decision-making. However, the variety of sources used was notably lower, averaging 4.36. This disparity highlights a potential over-reliance on limited information streams, which could restrict the ability to comprehensively perceive emerging trends and risks. Furthermore, 84% of respondents identified their time horizon as focused on medium-term or medium/long-term planning. This suggests that while foresight practices are integrated to some degree, their application is often limited to medium-term priorities, with only two organizations out of 25 engaging in visionary, long-term planning.

The people dimension scored the highest within the Capabilities Mapping section, with average scores around 5.0. It underscores the importance given by companies of leveraging internal and external networks. The alignment between internal and external networks may indicate that organizations use their employees and teams to collaborate in solving issues. Which is supported by the diffusion of information about future trends and potential changes in the industry with a 4.84 average score.

On average, companies reported using 3.32 strategic foresight tools, demonstrating a reliance on specific methodologies to guide their practices. Roadmapping emerged as the most used tool (84%), followed by SWOT analysis (60%) and Trend Analysis (44%).

Almost a quarter of respondents (24%) reported using at least six tools, with the maximum described by a single respondent as eight tools. Only three companies out of our valid sample reported not using any type of approach or method to deal with future challenges or risks.

Notably, organizations that reported higher clarity in identifying future risks, opportunities, and uncertainties also tended to exhibit more sophisticated usage of foresight tools. There is a positive correlation of +0.4237 (r) between the number of tools and methods used by the company and the score rated about uncertainties clearance—P-Value is 0.034804 for a sample (N) of 25. This connection highlights the importance of methodology sophistication in enhancing an organization's ability to navigate volatile and complex environments effectively.

Culture also played a significant role in shaping foresight capabilities. Respondents indicated that their organizations were generally open to external sources of information, demonstrated active curiosity, and frequently challenged existing assumptions—an average of 5.04. However, sharing information and aligning organizational vision appeared less consistent, suggesting potential gaps in communication and collective strategic alignment.

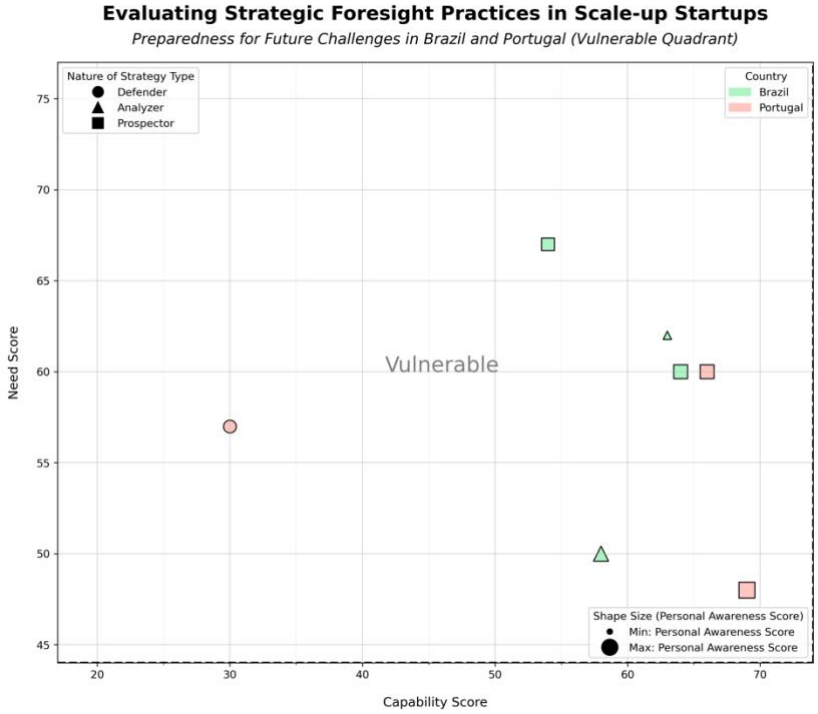
Within the organization dimension, there was evidence of integrated methods and shared ownership over detecting emerging issues, trends, and insights—an average of 4.44. Collaboration across departments, while present, could be further strengthened, as the results indicated varying levels of cross-functional engagement when applying methods or approaches for gathering insights and solving problems.

After combining them all, translate into an average Capability Score of 77.36, on a [17, 131] scale, that highlights the moderately strong foresight practices present among respondents, with clear potential for further enhancement. There are ups and downs in every dimension. Even though information gathering seems to be present, variety of sources is a bottleneck. Roadmapping is the most used tool, but companies seem to focus on medium-term time horizons. Assumptions seem to be regularly questioned, but sharing information and aligning organizational vision appeared less consistent.

4.3. Interpretation of Results

Overall, the findings indicate that while scale-ups exhibit moderately strong foresight capabilities, there are notable gaps in personal awareness. With an average Capability Score of 77.36 and a Need Score of 53.20, organizations demonstrate a considerable ability to deal with risks and uncertainties while facing significant pressures due to complex and volatile environments. Most respondents recognize the importance of long-term trends, suggesting awareness of foresight's relevance, even among those less familiar with its formal concepts. However, limitations in tool diversity, information gathering, medium-term focus, and inconsistent cross-functional collaboration indicate areas where these organizations can enhance their preparedness for future challenges.

FIGURE 7 – Vulnerable Quadrant.



Interestingly, while most organizations showed strong alignment between their capabilities and the perceived need for foresight, a considerable group was classified as high need and low capacity. These companies, classified as Vulnerable in the scatterplot quadrant, also exhibited a lower Personal Awareness Score on average and include an interesting case where the company seems to have a conservative approach focused on maintaining market stability—the nature of strategy as a defender. It also displays the fast-paced context where scale-ups are present, with most of the companies placed in the

top part of the graph and the ones that do not fit there appearing close to the cut line, with a demanding need for future-readiness capabilities.

While comparing Brazil and Portugal was not the primary goal of this research, some regional differences provide interesting insights into the broader context of foresight maturity. Brazilian respondents generally exhibited higher familiarity with foresight concepts and greater methodological sophistication, with an average of 12.17 for Personal Awareness Score versus 10 in Portugal, and a use of 3.83 foresight tools on average compared to 2.00 in Portugal. This aligns with Brazil's more dynamic and competitive market, where adaptability and proactive strategies are essential. On the other hand, Portuguese respondents demonstrated stronger capabilities in navigating regulatory frameworks and influencing external environments, reflecting the relatively stable and structured nature of the Portuguese market. These differences suggest opportunities for cross-border learning and potential future studies.

5. CONCLUSIONS AND RECOMMENDATIONS

The research aimed to address the central question of how future-proof scale-ups in Portugal and Brazil are and what factors contribute to their preparedness for future challenges. By analyzing dimensions of personal awareness, context analysis, and capabilities mapping, the study provides valuable insights into the strategic foresight maturity of these organizations and identifies critical areas for improvement to ensure resilience and adaptability.

5.1. Practical Implications

The findings underscore several practical implications for scale-ups striving to enhance their strategic foresight practices. One of the most significant insights relates to the relatively low level of personal awareness of strategic foresight concepts among employees. Despite this, respondents recognized the importance of long-term trend analysis, indicating an opportunity to embed foresight practices into organizational culture. Training programs, workshops, and consistent integration of foresight into everyday decision-making could significantly elevate awareness and strengthen future-readiness.

Another key takeaway is the importance of methodological sophistication. The positive correlation observed between the number of tools and methods used and the

clarity of understanding risks and uncertainties highlights the value of adopting diverse foresight tools. Organizations that rely on a narrow range of methods should consider expanding their toolkit to include practices such as Horizon Scanning, Scenario Planning, Technology Forecasting, and Trend Analysis, which can help them navigate uncertain environments more effectively.

Cross-functional collaboration emerged as an area requiring greater focus. The results suggest variability in how departments engage with foresight practices, indicating the need for more integrated approaches. Encouraging collaborative ownership of activities across departments could foster alignment, enhance information sharing, and drive collective strategic adaptability. Additionally, challenges related to the limited variety of sources used for gathering information and the diffusion of this information underscore an opportunity for diversification and improvement. By incorporating external industry reports, academic research, and unconventional data streams, organizations can broaden their understanding of external factors and enrich their decision-making processes. Combining these enhancements with a collaborative and agile communication framework would significantly strengthen foresight practices, embedding them more deeply across all levels of the organization.

The study also highlighted the challenges faced by organizations categorized as vulnerable in the analysis. These companies, with high need but low capability, require targeted interventions to strengthen their foresight practices. These companies could benefit from a deeper analysis done by the framework applied here, identifying their unique needs and where to focus their resources.

5.2. Limitations of the Study

While the study provides valuable insights, it is essential to acknowledge its limitations. First, the sample size of 25 participants, though representative of the scale-up ecosystem in Brazil and Portugal, may not fully capture the diversity of practices and perspectives across the entire population of scale-ups. Second, because data were collected between November and December 2024, the findings capture are a snapshot of an ecosystem that is continually evolving. Including a bigger and more varied sample, and maybe even naming companies so multiple point of views of the same organization become explicit, would probably lead to results that are more valuable.

The regional focus on Brazil and Portugal, while providing depth, limits the applicability of the findings to other geographical contexts. Different cultural, regulatory, and market dynamics in other regions may lead to variations in foresight maturity and its contributing factors. Furthermore, the reliance on self-reported data introduces the possibility of biases, such as respondents overestimating their organization's capabilities or underreporting challenges.

Another limitation lies in the predominantly quantitative nature of the analysis. While the study incorporated open-ended questions, a more qualitative approach—such as conducting in-depth interviews or case studies—could provide richer, more nuanced insights into the unique challenges and strategies of scale-ups. Lastly, foresight practices are essentially dynamic and may evolve rapidly in response to changing circumstances. This study offers a snapshot in time and may not fully account for ongoing developments within the organizations surveyed.

5.3. Suggestions for Future Research

Building on the findings and limitations of this study, future research could expand in several directions. One opportunity lies in expanding the sample size and scope to include a larger and more diverse set of scale-ups, representing a wider range of companies. This would enhance the generalizability of the findings and provide a more comprehensive understanding of foresight maturity across growth-stage startups.

Future research could also investigate industry-specific variations, exploring how foresight practices differ between FinTech and E-commerce/Retail, for instance. Such analysis could identify sector-specific challenges and opportunities, offering tailored recommendations for improvement. Another promising direction for research is the role of organizational culture in fostering foresight maturity. Examining how different roles, departments, and external stakeholders, such as investors, perceive and influence foresight practices in scale-ups.

Finally, the regional differences observed in this study suggest potential for cross-border learning. Future studies could explore how scale-ups in different countries can learn from each other's strengths, or their nuances due to internal context. Investigating the mechanisms of such learning and adaptation could enhance the global applicability of strategic foresight practices.

In conclusion, this research provides a valuable foundation for understanding the foresight maturity of scale-ups in Brazil and Portugal. Future research has the potential to build on these insights, contributing to a deeper understanding of how foresight practices drive resilience and innovation in an increasingly complex world.

BIBLIOGRAPHY

Ansoff, I. H. (1975). Managing strategic surprise by response to weak signals. *California Management Review*, 21–33.

Apex Brasil. (2024). *Portal Apex-Brasil | StartOut Brasil*. Retrieved from Apex Brasil: https://www.apexbrasil.com.br/startout-brasil

Arruda, C., Nogueira, V. S., & Costa, V. (2013, December). The Brazilian Entrepreneurial Ecosystem of Startups: An Analysis of Entrepreneurship Determinants in Brazil as Seen from the OECD Pillars. *Journal of Entrepreneurship and Innovation Management, 2*(3), 17-57.

Autio, E. (2016). *Entrepreneurship Support in Europe: Trends and Challenges for EU Policy.* London: Imperial College Business School.

Bakker, E.-J., & Thijssen, R. (2022, July). *Fast Growth of Start-up Ecosystem in Brazil* . Retrieved from Ministry of Economic Affairs and Climate Policy Netherlands: https://www.rvo.nl/files/file/2022-08/23082022_Fast%20Growth%20of%20Start-up%20Ecosystem%20in%20Brazil.pdf

Bannerman, L. (2022, August 13). *Why Lisbon is the new tech hotspot for Britain's entrepreneurs*. Retrieved from The Times: https://www.thetimes.com/uk/article/why-lisbon-is-the-new-tech-hotspot-for-britains-entrepreneurs-bfnf6829x

Barnes, O., & Kazmin, A. (2023, December 13). *Airbnb to pay €576mn settlement in end to tax dispute in Italy* . Retrieved from Financial Times: https://www.ft.com/content/6bb671df-bcbf-454b-9068-f1df064f8673

Beauhurst. (2022). *The Scale Up Index 2022.* Scaleup Institute.

Berkun, S. (2006, January 11). *The exceptions to Brooks' Law*. Retrieved from Scott Berkun: https://scottberkun.com/2006/exceptions-to-brooks-law/

Boyles, M. (2023, July 11). *How to Find Product-Market Fit in the Tech Industry*. Retrieved October 2024, from Harvard Business School Online: https://online.hbs.edu/blog/post/how-to-find-product-market-fit

Buder, F. (2021). *The Value of Foresight in a VUCA World: Results from a Survey of Organizational Foresight Capacity.* Nuremberg: Nurember Institute for Market Decisions.

Cavallo, A., Ghezzi, A., Dell'Era, C., & Pellizzoni, E. (2019, August). Fostering digital entrepreneurship from startup to scaleup: The role of venture capital funds and angel groups. *Technological Forecasting and Social Change, 145*, 24-35.

CB Insights. (2024, July 3). *State of Venture Q2'24 Report*. Retrieved October 2024, from CB Insights: https://www.cbinsights.com/research/report/venture-trends-q2-2024/

Coldwell, W. (2014, July 8). *Airbnb's legal troubles: what are the issues?* . Retrieved from The Guardian: https://www.theguardian.com/travel/2014/jul/08/airbnb-legal-troubles-what-are-the-issues

Day, G. S., & Schoemaker, P. J. (2006). *Peripheral Vision: Detecting the Weak Signals that will Make or Break Your Company.* Boston: Harvard Business School Press.

Dooley, K. (2002). Organizational Complexity. *International Encyclopedia of Business and Management*, 5013- 5022.

Endeavor Brasil. (2024). *Programa Scale-Up*. Retrieved October 2024, from Endeavor Brasil: https://endeavor.org.br/programa-scale-up/

Forbes Finance Council. (2020, April 3). *Navigating The Unique Challenges Of Scaling Up*. Retrieved October 2024, from Forbes: https://www.forbes.com/councils/forbesfinancecouncil/2020/04/03/navigating-the-unique-challenges-of-scaling-up/

Gordon, A., Rohrbeck, R., & Schwarz, J. (2019, August). Escaping the "Faster Horses" Trap: Bridging Strategic Foresight and Design-Based Innovation. *Technology Innovation Management Review, 9*(8), 30-42.

Grim, T. (2009, May). Foresight Maturity Model (FMM): Achieving Best Practices in the Foresight Field. *Journal of Futures Studies*, 69-80.

InovAtiva. (2024). *Hub de Empreendedorismo e Inovação - InovAtiva*. Retrieved from InovAtiva: https://www.inovativa.online/

Liebl, F., & Schwarz, J. O. (2010). Normality of the future: Trend diagnosis for strategic foresight. *Futures, 42*, 313-327.

Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978, July). Organizational Strategy, Structure, and Process. *The Academy of Management Review, 3*(3), 546-562.

OECD. (2022). Rethinking SME scale up and growth policies. *Financing Growth and Turning Data into Business: Helping SMEs Scale Up*, 12-13.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance.* Free Press.

PT2030. (2024). *Portugal 2030 Incentives and Funds - Who can apply*. Retrieved October 2024, from PT 2023 Fund Check: https://www.pt2030.org/portugal-2030-who-can-apply

Reuters. (2021, February 19). *Factbox: Uber's legal challenges around the world* . Retrieved from Reuters: https://www.reuters.com/article/technology/factbox-ubers-legal-challenges-around-the-world-idUSKBN2AJ1N7/

Ries, E. (2011). *The Lean Startup.* New York: Crown.

Rohrbeck, R. (2010). Maturity Levels of Horizon Scanning: Assessing Organisational Future Orientation. *Decisions in a Complex World-Building Foresight Capabilities*, 93-104.

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), 231-243.

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.

Schwarz, J. O., Wach, B., & Rohrbeck, R. (2023, May 17). How to anchor design thinking in the future: Empirical evidence on the usage of strategic foresight in design thinking projects. *Futures, 149*(103137), 1-10.

Startup Portugal. (2024). *Vouchers para Startups – Novos Produtos Verdes e Digitais* . Retrieved from Startup Portugal: https://startupportugal.com/pt/programs/vouchers-para-startups-novos-produtos-verdes-e-digitais/

Steele, C. (2016, December 7). *A Look Back at Pebble's Rise and Fall* . Retrieved from PC Mag: https://www.pcmag.com/news/a-look-back-at-pebbles-rise-and-fall

Torres, J. (2023). *Transformação digital e cultura de produto: Como colocar a tecnologia no centro da estratégia de sua empresa.* São Paulo: Casa do Código.

Tsoukas, H., & Shepherd, J. (2004). Coping with the future: Developing organizational foresightfulness. *Futures, 36*(2), 137-144.

Unicorn Factory Lisboa. (2024). *Growth Stage • Unicorn Factory Lisboa*. Retrieved from Unicorn Factory Lisboa • Unicorn Factory Lisboa is a platform of programs and hubs, inspired by international best practices, which supports startups and scaleups in creating sound products and business models, developing efficient processes, and achievin: https://unicornfactorylisboa.com/for-founders/growth-stage/

Y Combinator. (2022). *Different startup stages and what they mean for you*. Retrieved October 2024, from Y Combinator: https://www.ycombinator.com/library/K1-different-startup-stages-and-what-they-mean-for-you

Y Combinator. (2024). *Stages of Startups*. Retrieved September 2024, from Y Combinator: https://www.ycombinator.com/library/Ek-stages-of-startups#growth-series-b-c

APPENDICES

Survey Questions

I	**Demographics**
1.	**About You**
1.1.	**Which country are you currently based in?** (Single-Selection)
	Brazil
	Portugal
	Others
1.2.	**What is your role within the company?** (Single-Selection)
	Business Development Manager
	C-Level Executive (CEO, COO, CTO, etc.)
	Customer Success Manager
	Data Analyst/Engineer
	Founder
	HR Manager/Recruiter
	Marketing Manager
	Operations Manager
	Product Manager
	Sales Manager
	Software Engineer/Developer
	UX/UI Designer
	Other (Please specify)
1.3.	**Which department do you work in?** (Single-Selection)
	Business Development
	Customer Success/Support
	Design/UX
	Executive/Leadership
	Finance/Accounting
	Human Resources
	Legal/Compliance
	MarketingOperations
	Product Development
	Research & Development (R&D)
	Sales
	Strategy/Planning
	Technology/IT
	Other (Please specify)
1.4.	**How is your experience with the startup/scale-up ecosystem?** (Single-Selection)
	I work in a startup or scale-up
	I do not work in a startup or scale-up, but I worked in the past
	I never worked in a startup neither scale-up
1.5.	**How many years have you been working in the startup/scale-up ecosystem?** (Single-Selection)
	Less than 1 year
	1-3 years
	3-5 years
	5-10 years
	More than 10 years

1	**Demographics**
2.	**About Your Company**
2.1.	**Which industry does your company operate in?** (Single-Selection)
	Agriculture/Agritech
	Automotive/Transportation
	Biotechnology/Pharmaceuticals
	Construction/Engineering
	Consumer Goods/Retail
	E-commerce/Retail
	Education (EdTech)
	Energy (CleanTech, Oil & Gas, etc.)
	FinTech (Financial Technology)
	Government/Public Sector
	Healthcare/HealthTech
	Hospitality/Tourism
	Logistics/Supply Chain
	Manufacturing
	Media/Entertainment
	Nonprofit/Social Enterprise
	Professional Services (Consulting, Legal, Accounting)
	Real Estate/PropTech
	Telecommunications
	Other (Please specify)
2.2.	**Where is your company originally from?** (Single-Selection)
	Brazil
	Portugal
	Others
2.3.	**How old is your company?** (Single-Selection)
	Less than 1 year
	1-3 years
	3-5 years
	5-10 years
	More than 10 years
2.4.	**How many employees does your company have?** (Single-Selection)
	Less than 10
	11-50
	51-200
	201-450
	451-1000
	More than 1000
2.5.	**What is the current growth stage of your company?** (Single-Selection)
	Early stage (Looking for product market fit)
	Growth stage (Scaling product/product portfolio)
	Mature stage (Established)
2.6.	**Has your company raised external funding?** (Single-Selection)
	Yes
	No
	I don't know
2.6.1.	**If yes, how much funding has your company raised to date?** (Single-Selection)
	Less than $1M
	$1M - $9.9M
	$10M - $50M
	More than $50M
	I don't know
2.7.	**Does your company have clear purpose?** (Single-Selection)
	Yes
	Yes, but I don't know it
	No
	I don't know
2.8.	**Does your company have long term strategic vision?** (Single-Selection)
	Yes
	Yes, but I don't know it
	No
	I don't know
2.9.	**Does your company have team/department that deals with uncertainties, risk and strategic management?** (Single-Selection)
	Yes
	No
	I don't know
2.10.	**What is your company's name? (Optional)** (Open-Ended)
	(Text entry)

II Personal Awareness

1. Your Understanding

1.1.	**How familiar are you with the concepts of Strategic Foresight and Horizontal Scanning?**							
	Not familiar at all.	1	2	3	4	5	6	7	Highly familiar and regularly use these concepts to guide strategic decisions.
1.2.	**How familiar are you with terms related to Strategic Foresight, such as Scenario Planning, Weak Signals, Black Swans, Wild Cards, Megatrends, Horizon Scanning, and Delphi Method?**							
	Not familiar at all.	1	2	3	4	5	6	7	Very familiar with these terms and even use them in my day to day.
1.3.	**How relevant to your company's success do you believe the analysis of long-term future trends is?**							
	Not relevant at all.	1	2	3	4	5	6	7	Extremely relevant and critical to the company's long-term success.

Personal Awareness Score (Add Numbers):	

III Context Analysis

1. Nature of Strategy

1.1.	**How would you describe your company's approach to market positioning?**							
	Maintain a stable market position by focusing on existing markets and improving operational efficiency.	1	2	3	4	5	6	7	Constantly look for new business opportunities and innovations, regardless of existing markets.
1.2.	**How would you describe your company's approach to innovation and risk-taking?**							
	We prioritize stability and avoid risk by focusing on proven products or services.	1	2	3	4	5	6	7	We prioritize innovation, regularly take significant risks to enter new markets or develop new products.
1.3.	**How does your company prioritize operational efficiency compared to exploring new opportunities?**							
	We focus heavily on improving operational efficiency and process optimization.	1	2	3	4	5	6	7	We focus on exploration and growth, even if it means lower operational efficiency.
1.4.	**Which of the following best describes your company's strategic focus?**							
	Our strategy is to defend and optimize our position in the markets we already serve.	1	2	3	4	5	6	7	Our strategy is to continuously seek new market opportunities and grow through innovation and expansion.

Nature of Strategy (Add Numbers):		Classification: [4, 8] = Defender [9, 16] = Analyzer [17, 28] = Prospector

III Context Analysis

2. Environmental Complexity

2.1.	**How would you describe the industry space your company is in?**							
	Few, easily identifiable competitors.	1	2	3	4	5	6	7	Many competitors from unexpected sources.
2.2.	**How would you describe the distribution channel and operational structure of your company?**							
	Simple and direct.	1	2	3	4	5	6	7	Long and complex.
2.3.	**How strongly is your company affected by governmental decisions?**							
	Few or none.	1	2	3	4	5	6	7	Highly affected (e.g., banking).
2.4.	**How would you describe the public visibility of the industry your company is in?**							
	Largely ignored.	1	2	3	4	5	6	7	Closely watched by media or special-interest groups.

Environmental Complexity Score (Add Numbers):	

III Context Analysis

3. Environmental Volatility

3.1.	**How strongly has your company been affected by major changes in the industry environment in the past three years?**							
	Not affected at all.	1	2	3	4	5	6	7	Highly affected.
3.2.	**How strongly is your company influenced by the world economy?**							
	Not influenced at all.	1	2	3	4	5	6	7	Highly influenced.
3.3.	**How would you describe the speed of technological change in your industry sector?**							
	Stable or predictable; linear.	1	2	3	4	5	6	7	Unstable or changing rapidly; exponential.
3.4.	**How would you describe the technological development in your company's industry sector?**							
	Stable or predictable; linear	1	2	3	4	5	6	7	Unstable or changing rapidly; exponential.
3.5.	**How would you describe the company's stakeholder (competitors, contractors, customers, etc.) behavior?**							
	Stable or predictable; linear.	1	2	3	4	5	6	7	Unstable or changing rapidly; exponential.

Environmental Volatility Score (Add Numbers):	

III	Context Analysis		
4.	**Environmental Hostility**		
4.1.	**How would you describe the level of risk of the external environment within your company is in?**		
	Very safe; little threat to the company survival and wellbeing.	1 2 3 4 5 6 7	Very risky; a false step can mean the company collapse.
4.2.	**How would you describe your company's ability to influence and navigate the external environment?**		
	My company can control and manipulate the environment to its own advantage, such as a dominant firm has in an industry with little competition and few obstacles.	1 2 3 4 5 6 7	My company's initiative counts for very little against the tremendous competitive, political or technological forces in the external environment.
	Environmental Hostility Score (Add Numbers)		

Need Score (Add Numbers):	Environmental Complexity Score + Environmental Volatility Score + Environmental Hostility Score

IV	Capabilities Mapping		
1.	**Information Usage**		
1.1.	**To what extent does your company gather and use information to take strategical decisions?**		
	Scanning only in our current business area; internally only.	1 2 3 4 5 6 7	Scanning in current, adjacent business and in unrelated areas.
1.2.	**How would you describe the time horizon your company looks at?** (Single-Selection)		
	Emphasis on the short term, focusing mainly on tactical decisions. *(Value as 1)*		
	Medium-term focus, limited to tactical and strategic levels. *(Value as 3)*		
	Medium/Long-term focus, with attention to tactical, strategic, and vision levels. *(Value as 5)*		
	Long-term focus, emphasizing a holistic system-wide vision besides the previous levels. *(Value as 7)*		
1.3.	**How would you describe the variety of sources your company uses to gather information to take strategical decisions?**		
	Only mainstream sources; international organizations reports, consulting organizations reports, other formal publications, etc.	1 2 3 4 5 6 7	Besides mainstream sources, also ones that are difficult to access and sometimes not well known, stablished or fringe.
	Information Usage Score (Add Numbers):		

IV	Capabilities Mapping		
2.	**People**		
2.1.	**How would you describe the importance of internal network given by your company?**		
	Weak; some employees have formal and informal contacts to other units/departments.	1 2 3 4 5 6 7	Strong; every employee is expected to build and maintain formal and informal networks to other units/departments.
2.2.	**How would you describe the importance of external network given by your company?**		
	Weak; some employees allocate effort in developing external relationships.	1 2 3 4 5 6 7	Strong; building and maintaining a network of external partners is encouraged and perceived as important for every employee.
	People Score (Add Numbers):		

IV	Capabilities Mapping		
3.	**Network**		
3.1.	**How fast is information about future trends and potential changes in the industry diffused through the company?**		
	Very slowly; information about future trends is shared infrequently and takes a long time to reach most teams.	1 2 3 4 5 6 7	Very quickly; information about future trends is shared immediately across all teams and departments, with minimal delays.
3.2.	**How would you describe the diffusion of information about future trends and potential changes in the industry through the company?**		
	Very formal manner (e.g., newsletter or memo).	1 2 3 4 5 6 7	Very informal manner (e.g., direct messages).
	Network Score (Add Numbers):		

IV	Capabilities Mapping		
4.	**Methods Sophistication**		
4.1.	**How effectively does your company use methods and tools to combine market insights and technological changes to take strategic decisions?**		
	Weak; we rarely use methods to combine market and technology insights.	1 2 3 4 5 6 7	Very strong; we use advanced methods, like scenario analysis, to integrate weak signals from different areas and time horizons.
4.2.	**How clear are the future risks, opportunities, and uncertainties your company faces or expects to face?**		
	No clear at all; I have no context of the company's strategic direction.	1 2 3 4 5 6 7	Very clear, with upcoming plans being presented regularly via roadmaps and strategic alignment meetings.
4.3.	**Which of the following tools and methods does your company use to approach future risks, opportunities, and uncertainties related to the external environment? Select all applicable ones**		
	We do not have any type of approach or methods to deal with future challenges or risks. *(Value as 0)*		
	SWOT Analysis *(Value as 1)*		
	PEST Analysis *(Value as 1)*		
	Trend Analysis *(Value as 1)*		
	Scenario Planning *(Value as 1)*		
	Horizon Scanning *(Value as 1)*		
	Delphi Method *(Value as 1)*		
	Roadmapping *(Value as 1)*		
	Futures Wheel *(Value as 1)*		
	Technology Forecasting *(Value as 1)*		
	Strategic Foresight Workshops *(Value as 1)*		
	Environmental Scanning *(Value as 1)*		
	Other (Please specify) *(Value as 1)*		
	Methods Sophistication Score (Add Numbers)		

IV	Capabilities Mapping		
5.	**Culture**		
5.1.	**How effectively is information and vision of the future shared across functions and hierarchical levels**		
	Poor; information is ignored and reserved.	1 2 3 4 5 6 7	Excellent; ongoing information sharing on multiple levels ex: company purpose, strategic vision and strategic redirection are regularly presented.
5.2.	**How would you describe the readiness to listen to external sources within your company?**		
	The organization is closed; contacts to the outside are discouraged.	1 2 3 4 5 6 7	The organization is open; bringing external information into the company and paying attention to external trends and changes are encouraged.
5.3.	**How would you describe the company's attitude towards the external environment?**		
	Limited and myopic; only few people care about what happened "outside".	1 2 3 4 5 6 7	Active and curious; staying alert to external changes is a regular habit.
5.4.	**How would you describe the company's attitude to test and challenge basic assumptions?**		
	The basic assumptions are neither known nor made transparent.	1 2 3 4 5 6 7	Basis assumptions are explicit, much talked about and frequently challenged.
	Culture Score (Add Numbers):		

IV	Capabilities Mapping		
6.	Organization		
6.1.	**How does your company choose methods or approaches for gathering insights and solving problems**		
	Our methods are mostly driven by top-down decisions and specific issues that come up.	1 2 3 4 5 6 7	We use continuous (e.g., scanning for emerging technologies with disruptive potential) and issue-driven (i.e., directed by a specific question) methods, triggered both from bottom-up and top-down within the organization.
6.2.	**How strong is the collaboration with other departments or areas when applying methods or approaches for gathering insights and solving problems?**		
	Weak; our methods are rarely shared or coordinated with other departments.	1 2 3 4 5 6 7	Very strong; we have highly integrated methods for gathering insights and solving problems, with close collaboration across all key departments like strategy, technology, support, legal and marketing.
6.3.	**How formal and consistent is the process of sharing and discussing emerging issues, trends or insights within your company?**		
	Emerging issues, trends and insights are occasionally presented at dedicated meetings.	1 2 3 4 5 6 7	Discussion of emerging issues, trends and insights is part of routine meetings in all relevant departments/areas.
6.4.	**How is responsibility for detecting emerging issues, trends and insights assigned within your company?**		
	There's no defined responsibility for detecting emerging issues, trends or insights.	1 2 3 4 5 6 7	Every employee is responsible for detecting emerging issues, trends and insights and there's a specific department/team to coordinate efforts.
	Organization Score (Add Numbers):		

Capability Score (Add Numbers):	Information Usage Score + People Score + Network Score + Methods Sophistication Score + Culture Score + Organization Score

Survey Results Database

Survey results database is available in the following link:

https://docs.google.com/spreadsheets/d/1LvUm1VfCZInm9ZscYPwuiwbeMmf4AWvk_QoviYJEoAY/edit?usp=sharing

Survey Screenshots

Survey screenshots, in English and Portuguese, are available in the following link:

https://drive.google.com/drive/folders/1LkxMg1tfY5EWJg3Ct-ieObOUAWj5Axk4?usp=sharing