Strategic Change

WILEY

RESEARCH ARTICLE OPEN ACCESS

From Crisis to Response: How Start-Up Founders Navigate Uncertainty Through Pivoting

Enrico Giansoldati | Arcangela Ricciardi | Daniele Cerrato | Fabio Antoldi

Department of Economic and Social Sciences, Università Cattolica Del Sacro Cuore, Piacenza, Italy

Correspondence: Enrico Giansoldati (enrico.giansoldati@unicatt.it)

Received: 30 September 2024 | **Revised:** 6 August 2025 | **Accepted:** 13 October 2025

Keywords: COVID-19 | entrepreneurial action theory | entrepreneurs | pivot | start-ups | uncertainty

ABSTRACT

This study investigates how start-up founders navigate uncertainty by adopting pivot strategies, emphasizing stakeholders' active role in shaping these entrepreneurial decisions. Drawing on entrepreneurial action theory and the concept of second-person opportunities, we propose a three-stage conceptual framework (social interaction and second-person opportunity, cognitive evaluation, and action). Based on qualitative data collected through semi-structured interviews and observations involving 20 Italian start-up founders during COVID-19, our findings underscore the relational and socially embedded nature of pivoting, demonstrating how stakeholder interactions substantially shape strategic responses to crises. This research contributes to the existing literature by reconceptualizing pivots as entrepreneurial actions collaboratively constructed through stakeholder engagement, thus offering practical implications for entrepreneurs operating in conditions of radical uncertainty.

1 | Introduction

Over the past 20 years, companies have encountered numerous challenges that have led to significant uncertainty in the economic environment. The recent global health crisis caused by COVID-19, along with geopolitical issues stemming from the war in Ukraine and the Israeli-Palestinian conflict, has rendered the business landscape more unpredictable and challenging to navigate. These disruptions have particularly impacted start-ups, reducing sales, creating supply chain bottlenecks, making it more challenging to raise funds, and thus slowing (or halting) the implementation of their plans. This sudden stop hindered their capacity to innovate, grow, and adapt (Kuckertz et al. 2020; Shepherd and Williams 2020), leading to the increasing need to reorganize resources to provide rapid responses to constantly shifting circumstances (Klein 2020). This activity recalls the concept of pivot, recognized as a significant business model change to create new value (Sala et al. 2022).

Extant research has traditionally seen pivoting as a cycle of experimentation and validated learning (Ries 2011) that brings modifications to well-evaluated business models. However, in crisis times, when timely responses to unpredictable environmental shocks are required, the pivoting process changes. Recent studies (Allen et al. 2024; Kirtley and O'Mahony 2023) indicate that events like COVID-19 restrict entrepreneurs' ability to experiment, test hypotheses, and make incremental changes. Crises tend to invalidate existing knowledge and disrupt established mental models, creating an epistemic gap that forces entrepreneurs to rapidly reevaluate their change strategies. As a result, a pivot is increasingly the result of rapid entrepreneurial actions (Gabay-Mariani et al. 2024) amid uncertainty (Sanasi and Ghezzi 2022) instead of a trial-and-error approach to business modeling. Furthermore, the decision-making processes behind these entrepreneurial actions in response to external shocks and, in particular, the impact of the entrepreneur's relationships with stakeholders (e.g., incubator managers,

This study explores how start-up founders enact pivot strategies under uncertainty, emphasizing stakeholders' role in co-constructing entrepreneurial decisions.

Summary

- This study explores pivoting as a start-up's response to external shock, focusing on the role of stakeholders in affecting entrepreneurial decision-making processes.
- Building on entrepreneurial action theory, we develop a conceptual framework illustrating how entrepreneurial cognitive processes intertwine with stakeholder engagement, shaping pivot strategies in response to crises.
- We adopt an inductive qualitative approach, using data from semi-structured interviews and field observations involving 20 Italian start-up founders.
- Findings highlight the socially embedded nature of entrepreneurial pivoting, demonstrating how relational dynamics with stakeholders affect entrepreneurs' strategic decisions.
- Our pivot process framework outlines the cognitive and relational dynamics that influence entrepreneurial decisions, organized into four substages: (1) suggestion gathering; (2) rationalization; (3) evaluation; and (4) pivot adoption.

advisors and mentors, investors, and other key actors in their innovation ecosystem) remain overlooked in this expanding body of research. Thus, this study aims to investigate how entrepreneurs redefine business opportunities in collaboration with start-ups' stakeholders and how such collaboration affects the pivot process.

To reach this goal, this study draws on entrepreneurial action theory (EAT) (McMullen and Shepherd 2006) and the related concept of second-person opportunity (Mitchell et al. 2021), which conceptualizes entrepreneurial opportunities not as individual constructs but as visions cocreated between entrepreneurs and others. Building on the argument that, in times of crisis, pivoting is best understood as a socially constructed response to uncertainty, co-developed through mutual alignment between entrepreneurs and their stakeholders, we address the following research questions: (1) How do entrepreneurs co-construct pivot opportunities through stakeholder interactions during periods of high uncertainty? (2) How does the co-construction of opportunities influence the entrepreneurial pivot process?

From an empirical perspective, the study involves interviews with 20 founders of Italian start-ups who adopted pivot strategies during the COVID-19 epidemic. Utilizing an inductive approach, the research explores how entrepreneurs interacted with stakeholders to reinterpret their business models and reorient their strategic choices during the crisis. Our framework underscores how external shocks drive socially constructed actions, wherein entrepreneurs interact with their stakeholders to identify what is desirable, feasible, and pursuable in an environment of maximum uncertainty. Indeed, our model suggests that pivot strategies arise from two subsequent processes: first, a social interaction process through which entrepreneurs identify pivot opportunities by gathering stakeholders' suggestions and rationalizing these cues; and second, a cognitive process that allows the entrepreneurs to evaluate pivot opportunities and take action through pivot adoption.

The contribution of this study to pivot literature is twofold. First, it reconceptualizes pivoting as an entrepreneurial action inherently embedded within social interactions, thereby enhancing the understanding of how founders navigate uncertainty by constructing opportunities through engagement with others. Second, it elucidates the relational dynamics of strategic decision-making within start-ups, demonstrating that stakeholder input transcends mere feedback to become an integral component of the opportunity formation process during uncertainty.

2 | Pivot and Uncertainty Through the Lens of EAT

Pivot is a key element of the lean start-up approach, introduced by Eric Ries in *The lean start-up* (2011). Ries defines it as a "structured course correction designed to test a fundamental new hypothesis about the product, strategy, and growth engine" (p. 149). Scholars have used the term "pivot" to describe various types of change (Bellavitis et al. 2025; Camuffo et al. 2020; Tekic and Koroteev 2019), strategic decisions (Hampel et al. 2020; Pillai et al. 2020), correction or replacement mechanisms in case of failure (Conway and Hemphill 2019; Leatherbee and Katila 2020; Shepherd and Gruber 2021), processes or events (Ghezzi 2019), and states or conditions (Bahrami and Evans 2011). Despite varying definitions and strategies, studies agree that pivots are inherently experimental (Frederiksen and Brem 2017; McDonald and Gao 2019; Pillai et al. 2020). Nonetheless, this experimental approach faces significant limitations during crisis contexts such as the COVID-19 pandemic, where heightened urgency, unpredictability, and severe resource constraints drastically reduce the possibility of systematic testing and incremental adjustments (Berends et al. 2021; Sanasi and Ghezzi 2022). Consequently, pivoting under extreme uncertainty shifts from structured experimentation toward rapid, context-specific strategic adaptations that demand immediate, decisive action (Allen et al. 2024; Trincanato and Vagnoni 2024). However, in both crisis and non-crisis times, the conversation with the stakeholders remains a crucial part of the pivot process (Grimes 2018; Hampel et al. 2020).

According to EAT, entrepreneurial behavior under uncertainty is characterized by action and interaction rather than merely predictive knowledge acquisition (McMullen and Shepherd 2006). Entrepreneurial action, therefore, becomes inherently relational and interaction-driven, relying heavily on dynamic processes of social engagement rather than isolated, rational decision-making (Brinckmann et al. 2010; Giones et al. 2020; Sarasvathy 2008). Central to this theoretical perspective is the concept of second-person opportunity introduced by Mitchell et al. (2021). This innovative concept reconceptualizes entrepreneurial opportunities as dialogical outcomes cocreated through meaningful interactions between entrepreneurs and their stakeholders. Thus, opportunities are viewed not as solitary entrepreneurial visions but as emergent properties of ongoing, collaborative processes. Through this

relational engagement, entrepreneurs and stakeholders collectively define perceptions and possibilities, enabling entrepreneurs to navigate uncertainty by collaboratively defining and redefining actionable pathways effectively.

Therefore, while traditional Lean Start-up theory focuses on pivoting as experimentation driven by hypotheses, EAT broadens and integrates this idea within situations of extreme uncertainty and crisis. In such contexts, factors like limited time, cognitive overload, and scarce resources (Sanasi and Ghezzi 2022) significantly constrain systematic experimentation. Viewing pivot decisions through the entrepreneurial action framework deepens our insight into how strategic shifts during crises depend on dynamic stakeholder interactions. Ultimately, EAT and the concept of second-person opportunities offer a robust framework that enhances pivot literature by addressing the complexity of pivoting under unpredictable and profound change.

3 | Methods

3.1 | Research Setting

The research setting of this study is a group of Italian start-ups in 2020, before, during, and after the COVID-19 pandemic. Due to its unprecedented and widespread impact on the economy and on all types of firms (Guyottot and Le Fur 2023; Williams et al. 2024), the COVID-19 pandemic represents a significant example of radical uncertainty that may influence the decisions of entrepreneurs and firms. The pandemic negatively affected the profitability of many start-ups, thus making pivoting a crucial and inevitable strategy. The COVID pandemic, therefore, represents a relevant context to examine uncertainty and firms' responses. The start-ups included in our analysis were hosted by three different business incubators: Le Village by CA Parma, Le Village by CA Milano, and Cremona Information Technology (CRIT). Le Village by CA Parma and Le Village by CA Milano are part of the Le Village by Crédit Agricole ecosystem, an international network of 45 incubators and accelerators in France, Italy, and Luxembourg. In Italy, there are six "villages," with over 195 incubated start-ups, 80 business partners (among many renowned Italian brands), and more than 175 facilitators represented by universities and research centers. These incubators aim to facilitate start-ups' growth and acceleration by reducing the match between these new firms and established corporates following an open innovation perspective. The third incubator involved in this study is the incubator of CRIT, a technological hub based in the city of Cremona that hosts more than 20 start-ups. These start-ups follow specific incubation and acceleration programs that allow the firm to grow, reinforce the firm's business model, facilitate the firm's access to the market, and create a strong and diversified network made of other start-ups, established firms, and private and public institutions.

These incubators provided us with the ideal environment to observe the dynamics of pivoting following an external crisis and the related role of stakeholders in this process. This fit derives from many elements. First, the incubators' managers supported the start-ups' participation in the study, thus facilitating our recruitment of interviewees. Second, the three incubators provided us with the possibility of screening their dataset of incubated firms to select those that ensured enough variability in our sample in terms of firm age and industry. Third, the analysis of firms that were incubated at the time of COVID-19 allowed us to gain much more secondary data compared to what we could have collected by including start-ups not involved in any incubation program. Indeed, each incubator periodically produces analyses and reports on their firms and on the results obtained by incubators that we have used to triangulate our analysis. Moreover, this reporting activity increased during the pandemic because of the exceptionality of the situation. Fourth, being incubated during COVID-19, start-ups were involved in a greater variety of stakeholder relationships (with mentors, business partners, and facilitators) than non-incubated firms. Thus, given this study's goal of better understanding the role of stakeholders in pivot decisions taken during a crisis, we had the opportunity to study a context where the phenomenon is clearly observable, as suggested by Eisenhardt (1989) for data collection in qualitative research.

3.2 | Research Design and Data Collection

We adopted an inductive qualitative approach that is particularly suitable for answering "how" questions (Yin 2018) and for exploring complex and relational phenomena that go beyond quantifiable dimensions (Ostertag et al. 2021). The research process, as highlighted in Figure 1, involved several phases. First, by leveraging a partnership with the three partner incubators, we identified firms that matched the criteria of (a) being

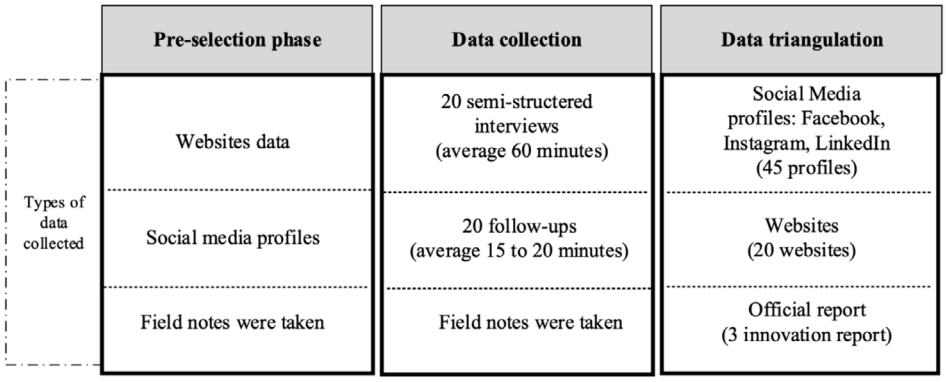

FIGURE 1 | Research process.

start-ups during the COVID-19 outbreak (founded between 2015 and March 2020) and (b) having adopted a pivot strategy in response to the pandemic. We obtained an initial list of 45 firms. We then screened their websites, LinkedIn pages, and social profiles to determine their eligibility for our study. The next step involved contacting the founders to check their availability to be involved in the study and then building a purposeful sample to ensure diversity in terms of age, size, location, and industry of the start-ups, thus increasing the generalizability of our results (see Table 1).

Data collection took place between April and August 2023, approximately 3 years after the start of the COVID-19 pandemic. The primary data source was semi-structured interviews—designed to reconstruct the pivot processes ex post—conducted with 20 founders or cofounders of Italian start-ups who adopted pivot strategies as a response to the COVID-19 pandemic. The interviews were based on a protocol structured across four macro-sections: (i) a presentation of the start-up and its value proposition before the crisis; (ii) the reaction to the COVID-19 pandemic; (iii) the response strategy employed by entrepreneurs to face the crisis; and (iv) the impact of pivoting strategies on the present value proposition of start-ups. Overall, we conducted 20 primary interviews with founders. We also conducted follow-up interviews, each lasting 15–20 min, to revisit and delve deeper into the main themes from the initial conversations. These follow-ups aimed to verify consistency, confirm the accuracy and reliability of the information shared, and explore insights that emerged after the first round of interviews. Interviews were conducted until theoretical saturation was reached, when no new insights or concepts emerged (Corbin and Strauss 2015; Eisenhardt 1989).

To supplement interview data and corroborate the entrepreneurs' statements about pivoting, the authors also gathered and scrutinized additional secondary data. These included incubator notes and documents, start-up websites, press releases, social media posts, and specialized reports that allowed the research team to gain further information on the strategic behavior of start-ups following the pandemic.

3.3 | Data Analysis

Following the Gioia methodology (Gioia et al. 2013), we compared data from the interviews to inductively build insights from concealed meanings that theoretically advance a phenomenon (Glaser and Strauss 1967). The Gioia methodology allowed us to illustrate how the data progress toward "the process of model building" (Gioia 2021, 26), aiming to "generate a well-founded process model that displays the most probable explanations of the phenomena of interest" (Magnani and Gioia 2023, 3). Therefore, following Gioia et al. (2013), we began by individually analyzing the raw data from a large sample of first-order concepts. The concepts derived from this first step were then compared by the first two authors to find alignment, reducing them to a more manageable number. The concepts were subsequently labeled by referring to the literature, and data were further analyzed to uncover second-order theoretical themes. Finally, these were collapsed into aggregate dimensions. An example of the process is shown in Figure A1.

We also undertook an analysis of secondary data through a process of individual and collective source scrutiny. Specifically, a dedicated file was established for each start-up, documenting pivot-related activities identified through or evident in their social media profiles, websites, and incubator reports, with precise chronological annotation (year/month) for each instance. In cases where an activity exhibited significant complexity, a concise descriptive summary was included.

The classification derived from these secondary data served a dual purpose within the research process. First, prior to the commencement of interviews, these data facilitated the identification of potentially relevant topics for discussion with the interviewees. Second, subsequent to the completion of the interviews, the secondary data were employed to enhance understanding of firms' pivot strategies and to identify specific elements warranting further investigation during follow-up inquiries.

4 | Results

Data show that all pivots are a sequence of adaptive and non-experimental steps unfolding in three distinct macro-stages: (1) social interaction and second-person opportunity; (2) cognitive interpretation; and (3) action. Figure 2 illustrates the empirical framework based on the results of the analysis.

4.1 | Stage 1: Social Interaction and Second-Person Opportunity

The data collected during our interviews illustrate that entrepreneurial pivoting under radical uncertainty initiates through social interactions with key stakeholders, conceptualized as second-person opportunities (Mitchell et al. 2021). Specifically, our results reveal two substages within this social interaction phase: suggestion gathering, where stakeholders provide insights and inputs that shape initial ideas, and rationalization, where entrepreneurs interpret these external inputs within their business model frameworks.

Insights from interviewee [#17] highlight the initial substage of the pivot process that entrepreneurs experience during the crisis: suggestion gathering. In this substage, entrepreneurs collect resources through exchanges with key stakeholders—suppliers, investors, customers, and the community. "The third founding partner, the main investor, is a document management company. We developed in-house document processing software for accountants that used AI to extract critical data from documents like invoices and delivery notes. The results were poor; a demo [...] Shortly after the pandemic began, they proposed focusing on this product because some of their customers had requested it." This extract reveals that investors' formal request prompted the entrepreneur to concentrate on a specific product feature.

This pattern appears across all analyzed pivot types but varies in its form and the types of stakeholders involved. For example, founder [#8] indicated that customer recommendations drove the decision to expand service offerings: "When the pandemic broke out [...] one client, a big corporate client, asked why we didn't handle everything since we are more flexible and offer

TABLE 1 | Profile of the 20 interviewees included in the sample.

Interviewee (#)	Role	Start-up industry	Founding year	Employees (range)	COVID-19 impact on business model	Business model after COVID-19	Interview length (~min)
1	CEO	MedTech	2018	2–10	Shift to remote healthcare services	Multi-service digital platform	Interview: 60 Follow-up: 20
2	CEO	Creative	2017	2–10	Transition to online creative services	Remote creative services provider	Interview: 55 Follow-up: 20
3	CEO	Booking Platform	2017	11–50	Cancellation of physical events	B2B sales platform	Interview: 60 Follow-up: 15
4	CEO	Booking Platform	2017	11–50	Cancellation of physical events	Hybrid booking platform	Interview: 65 Follow-up: 20
5	CEO	Booking Platform	2018	2–10	Increased demand for services offered	Scalable ticketing platform	Interview: 60 Follow-up: 15
6	CEO	Agri-Food	2018	2–10	Supply-chain disruption	Local supply and direct sales e-commerce	Interview: 50 Follow-up: 20
7	CEO	Real Estate	2017	2–10	Adoption of virtual property tours	Real estate service with virtual tours	Interview: 65 Follow-up: 15
8	CEO	IoT and ICT	2020	11–50	Increased demand for remote IoT monitoring	Integrated infrastructure for smart factories	Interview: 60 Follow-up: 15
9	COO	Blockchain Provider	2019	11–50	Slowdown of blockchain project deployments	Blockchain-based B2B supply solution	Interview: 60 Follow-up: 20
10	CEO	Networking Platform	2018	2–10	Changing user needs	Inclusive digital networking agency	Interview: 60 Follow-up: 20
11	CSO	Fintech & Insurtech	2018	2–10	Increased demand for digital payments	Digital payment automation suite	Interview: 60 Follow-up: 10
12	CEO	Agri-Food	2019	2–10	Customer requests (B2B)	B2B sales platform	Interview: 65 Follow-up: 20
13	CEO	Marketplace	2019	11–50	Customer requests (B2B)	Sales platform dedicated to B2B	Interview: 50 Follow-up: 20
14	CEO	Fintech & Insurtech	2018	2–10	Increased demand for digital insurance	Digital insurance microservices offering	Interview: 60 Follow-up: 15
15	CEO	Green Lending Crowdfunding	2018	11–50	Increased interest in sustainable finance projects	Crowdfunding platform for customized ESG investments	Interview: 55 Follow-up: 20

(Continues)

TABLE 1 | (Continued)

Interviewee (#)	Role	Start-up industry	Founding year	Employees (range)	COVID-19 impact on business model	Business model after COVID-19	Interview length (~min)
16	CEO	Networking Platform	2019	2–10	Changing user needs	Personalized community building service	Interview: 55 Follow-up: 15
17	CEO	Fintech & Insurtech	2019	2–10	Increased demand for digital support	AI-based document automation	Interview: 50 Follow-up: 15
18	CEO	Agri-Food	2020	2–10	Increased demand for e-commerce channels	E-commerce with delivery from manufacturer to consumer	Interview: 60 Follow-up: 20
19	CEO	Digital Recruiting Platform	2020	11–50	Increased demand for different targets	Industry-based remote talent platform	Interview: 60 Follow-up: 20
20	COO	MedTech	2018	2–10	Increased complexity of core business logistics	Medical logistics	Interview: 60 Follow-up: 15

customized solutions. So, we started considering expanding our service to offer the entire technology chain, as we had those capabilities." Following an initial moment of informal exchange between customers and the entrepreneur, an informative interaction indicates the potential for expanding service offerings. Similar to other interviewees' statements [#1, #4, #5, #11, #9, and #14], shortly after the pandemic outbreak, customers directly suggested innovative solutions to ensure the resilience and continuity of start-ups.

Entrepreneurs [#10 and #16] introduce the community as an actor in the initial process. This community comprises individuals who share common interests, values, objectives, or practices and interact in various ways: "I started doing social media marketing as a marketing agency, targeting women entrepreneurs, primarily to discuss topics like female entrepreneurship, the gender gap in business, and successful brands addressing these issues [...] The change occurred within the community [...] Because individuals and companies that care about these topics and share these values wanted to integrate these mindsets into their organizations." As this extract from founder [#10] illustrates, the relational link between entrepreneurs and community members is even more informal than that with typical start-up customers. Shared values and the collective fear generated by the exogenous event foster an environment where people feel motivated to suggest significant changes. These suggestions, often involving substantial changes to the value proposition, impact not just specific product or service aspects but the entire company offering.

Respondents [#2] and [#3] discussed information exchange with suppliers. During times of uncertainty, this exchange is formal, as suppliers fear that the situation may hinder service optimization and economic sustainability. "Our specific pandemic response emerged from discussions with key institutional stakeholders and suppliers, including municipalities and museums. We developed and implemented ideas to meet their needs, like remote activities" [#3]. Conversely, in long-term relationships, information exchange is informal.

The second substage, involving the rationalization of information resources, relates acquired information to relevant business model areas, products, or markets. Entrepreneurs assess the strategic implications and decide if the information necessitates product adjustments, market changes, or value proposition modifications. This substage follows gathering suggestions in a process logic but occurs during the social interaction phase: "You realized your supplier had a cost problem, and you considered how our B2C system could assist companies" [#3].

This citation emphasizes the cognitive rationalization process of entrepreneurs during interactions with stakeholders. The interviewees posed and responded to proposal questions, pinpointing strategic implications for the start-up's business model. Recommendations about the business model's scope elicited the most rational response, as noted by participant [#11]: "Then we realized that this project wasn't resonating with the market, while the product we were developing was highly regarded by industry players." Participant [#4] illustrates another rationalization approach: "Our initial reaction

was to adapt our car park reservation app so customers could similarly reserve park spaces." Similarly, interviewees [#17 and #2] explained how they rationalized the product despite suggestions to improve services and concentrate on specific products. "Faced with this fact, we realized that we could achieve an immediate result by extending the use of our digital models. These virtual visits, these digital experiences, were tools we had but were underutilizing" [#2].

4.2 | Stage 2: Cognitive Evaluation

Following the social interaction, the entrepreneurial process moved into a distinctly cognitive phase, where entrepreneurs individually interpreted and assessed the feasibility and desirability of cocreated opportunities. Our analysis identifies five distinct evaluation approaches: linear, opportunistic, interpretive, adaptive, and responsive. Each one is characterized by differing cognitive responses to the social interaction phase and the crisis context. Figure 3 illustrates the different evaluation types.

In a linear approach, the entrepreneur adheres to suggestions without hesitation, maintaining a conservative stance focused on stability. The experience of entrepreneur [#17] provides an example of this: "Their comparison has always been very useful to us because they have in-house expertise, know-how, and knowledge of different sectors. Instead of evaluating the proposal from the financial and strategy side, where they have a better view of the market, we told ourselves: Let's improve this product directly, let's focus on it." The investors recommended focusing the value proposition on a specific product feature. The entrepreneur chose a conservative approach, with minimal differentiation from the nature of the suggestions; the primary variation lay in the entrepreneur's crisis management. The goal of the approach was to mitigate risk, to turn a challenging situation into a favorable opportunity, and to make decisions based on available information to achieve the desired outcome.

"[Name of start-up] also reinvented itself during COVID as a booking platform for other things, aiming to stabilize the business in a difficult time and capitalize on the opportunity." This quotation from interviewee [#4] forms the basis for another classification of the evaluation substage: opportunistic. The focus is not on strategy formulation but on adopting short-term tactical adjustments and offers. These strategies are opportunistic, emphasizing modifying products or services in response to suggestions. While the specific nature of these suggestions shows modest differentiation, the entrepreneurial risk-taking and willingness to seize opportunities amid adversity vary. Unlike other identified categories, these strategies prioritize short-term survival over long-term planning. They are speculative, aiming for economic sustainability during the crisis rather than outlining a strategic transformation process. A quotation from interviewee [#2] confirms this evaluation: "The first months post-COVID were a disaster in terms of sales. [...] But it was precisely this collaboration, these requests from our suppliers, that pointed us to an opportunity that we seized out of necessity, but also because we thought they were good projects [...]."

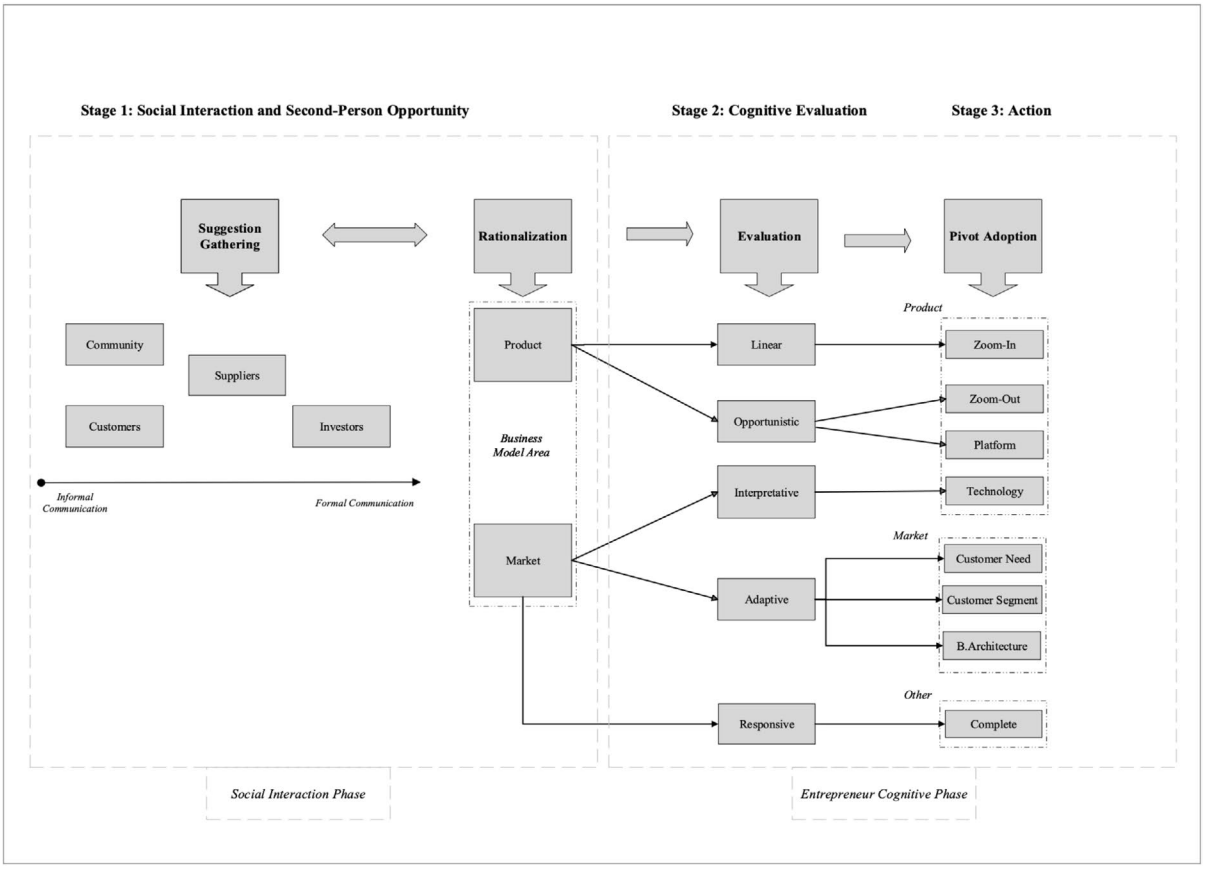

FIGURE 2 | Empirical framework: How start-up founders define pivot strategies in times of crisis.

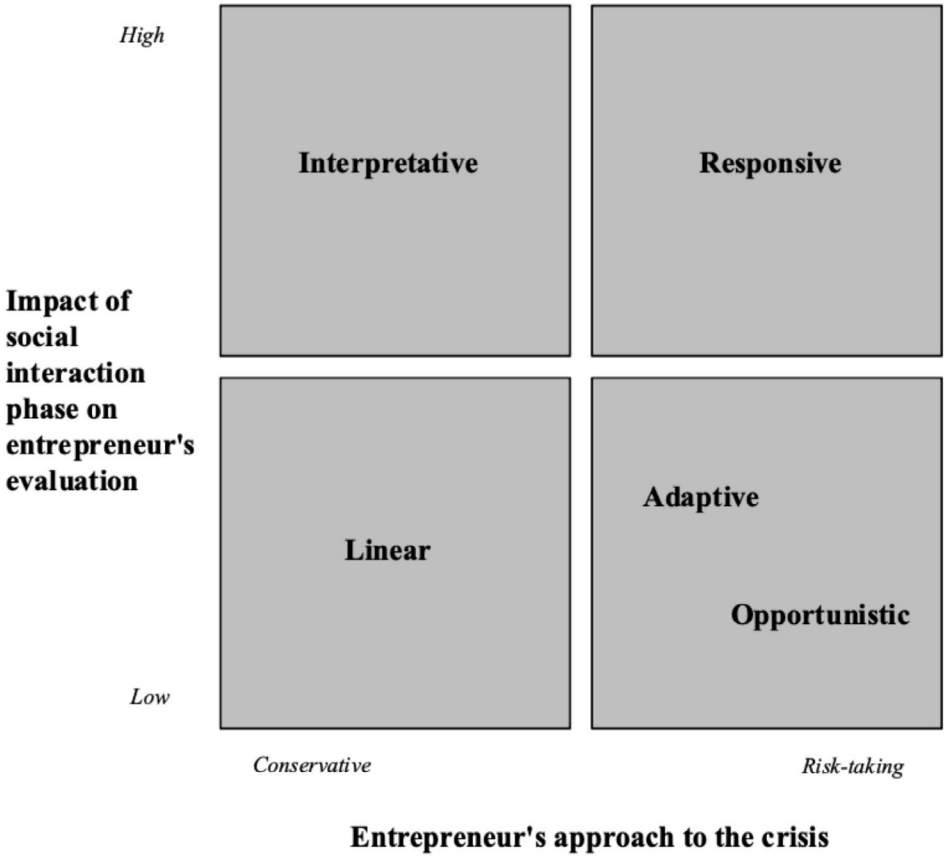

FIGURE 3 | The cognitive evaluation stage: Categorization of different types of evaluation.

In interpretative evaluation, as shown by interviewee #5, entrepreneurs often reassess customer feedback post-pandemic: "Talking to them, I asked myself: they ask for more services, but what does that imply for my business? So we focused on the technological aspect. Based on market feedback, we coded the platform differently to support the increased traffic, I assumed." Thus, the entrepreneur focused on improving the technological efficiency of the core platform, which represents an approach entirely different from the nature of the suggestion. However, although the intention was to change the technological aspects of the platform offered, the attitude toward defining a response was remarkably conservative.

In adaptive evaluation, exogenous crises can impact the market positioning of start-ups. Interviewee [#13] noted: "COVID was an opportunity for us because it made us realize that the business segment we were targeting was wrong [...]. Talking to customers, we realized that the need was mostly for shop owners and businesses." This statement illustrates how external events can shift market trends and needs, making current positioning ineffective. Entrepreneurs may then focus on new market segments or emerging customer needs to enhance profitability or ensure long-term viability. Compared to the suggestions received, the difference in evaluation remains modest. The entrepreneur took a risk-oriented but not opportunistic approach. The key difference is the long-term perspective; the entrepreneur maintains this strategy even after the crisis. This distinction is evident elsewhere: "The target group has evolved. Originally, we thought we would target the entire Italian and European SME market and other start-ups. Still, we realized significant interest from corporate customers, who have different needs from the market we had in mind" [#9].

Analyzing the words of interviewee [#13] reveals a final type of evaluation termed responsive: "From these confrontations with some community members came the first insight [...] that we had previously given the artists a crucial tool, a distribution channel to sell their works. But the pandemic made them acutely aware of their insecurity about the initial part [...] the entire structure needed to make the artist a professional." During crises, community-based start-up founders recognize and address the community's concerns, focusing beyond traditional market and product dimensions to tackle social and economic issues affecting the user group. Shared social and cultural values between entrepreneurs and the community motivate founders to shift from purely economic to sociocultural goals. As stated by interviewee [#10], this motivation is driven by a willingness to drive necessary change for the community by following their risk-taking attitude: "So many people and users trust us, follow our socials, participate in our networks. We simply thought about how they could monetize this without altering the relationship built on real values with our community."

4.3 | Stage 3: Action

After cognitive evaluation, entrepreneurs translated their interpreted opportunities into concrete strategic actions, called pivot adoption. This substage marks the shift from internal cognition to external entrepreneurial action, where the pivot strategy

TABLE 2 | Pivot types adopted by the interviewed founders.

Dimension	Interviewee (#)	Illustrative quotes	Second-order themes	Pivot types
Product	17	"Compared to the original idea [...] we have focused on the development of our technology for the automatic processing of document processes. More specifically [...] using artificial intelligence algorithms"	A single feature of a product becomes the whole product.	Zoom-In
	5	"We have not focused on the commercial aspect [...]. We added some technological features and coded the platform differently than when we started, so that the technological infrastructure can support more traffic"	The same solution using different technology.	Technology
	4	"We utilized the booking platform for park access. Some customers would call us and request this service, so we adapted the platform accordingly"	A product becomes a platform or vice versa.	Platform
	8	"Originally, we focused on selling software, but we thought we would take care of the entire supply chain. From the electronics, software and firmware that move a single machine, to coordinating the movement of two machines, to managing multiple production lines and facilitating communication between factories"	A whole product becomes one feature of a much larger product.	Zoom-Out
Market	20	"The blood delivery service was also renewed for the delivery of tampons, analyses and everything else that was needed during COVID. We adapted to the requirements of the facilities. We tried to reorganize ourselves to meet their needs"	Switch to a different problem that customers have.	Customer Need
	9	"The target group has evolved [...] we have noticed that there is a lot of interest from corporate customers. Especially in the fashion market"	Move to a different customer segment than originally conceived.	Customer Segment
	13	"During the COVID period, we realized that the business segment we were targeting was wrong [...]. Our platform was focused on buying and selling between private individuals. When we talked to customers, we realized that the need was mainly for shop owners and businesses"	A start-up switches business architecture, for example, from B2C to B2B or vice versa.	Business Architecture
Others	10	"We started out as a communications agency [...]. Due to recent changes, companies are turning to us to find ways to attract women or members of gender minorities to their organizations because they have an internal diversity gap"	Significant change in product, market, and financial dimensions, but the entrepreneurial team remains the same.	Complete

emerges clearly in response to the previously cocreated and interpreted opportunity. Our data classify these actions into three pivot categories: product response, market response, and complete response (Bajwa et al. 2017) (Table 2).

Product-oriented pivots arise from evaluations aimed at refining the product aspect of the business model. For instance, linear evaluations, where entrepreneurs closely engage with stakeholder suggestions, often result in zoom-in pivots, as demonstrated in the case of interviewee [#17]. In this instance, the founder responded to investors' recommendations by focusing on a specific product feature, narrowing the scope while enhancing its depth and quality. Similarly, interpretative evaluations are associated with technology pivots, where entrepreneurs reframe stakeholders' suggestions to strengthen internal technological capacities. For instance, interviewee [#5] responded to increased demand by modifying the platform's architecture and infrastructure. The platform pivot noted by interviewee [#4] also emerged from this interpretative logic, where feedback was integrated into a more abstract redesign of the technology structure. Finally, opportunistic evaluations prioritizing tactical moves over strategic transformation often led to zoom-out pivots, like the one described by interviewee [#8], who expanded the company's offering in response to a client's request for more integration services.

When entrepreneurs reinterpret stakeholder input as a signal of shifting customer expectations or segment misalignment, in adaptive evaluations, they implement market-oriented pivots. Interviewee [#20], whose start-up initially served a niche function (blood transport via drones), exemplifies the customer need to pivot by repurposing services to address urgent hospital needs during the pandemic. Similarly, interviewee [#9] illustrates a customer segment pivot by redirecting the strategic focus toward corporate clients following new insights into evolving demand. The business architecture pivot, involving a structural change in how value is delivered and captured, also arises from adaptive evaluations, often when founders reassess their positioning in light of sustainability and long-term profitability. This is particularly evident in the case of interviewee [#13], who transitioned the business model from B2C to B2B.

Finally, responsive evaluations grounded in community-driven logic and sociocultural values lead to complete pivots. These transformations extend beyond products or markets, signifying a fundamental shift in the company's mission and identity. Interviewee [#10] provides a clear example: a communication agency initially focused on gender inclusion pivoted entirely to become a recruitment platform for nonbinary workers, incorporating AI-based solutions and reshaping its organizational structure. This type of pivot illustrates the reinterpretation of stakeholder expectations and the entrepreneur's internalization of a broader purpose aligned with shared community values.

5 | Discussion and Contributions

Our study examines how founders leveraged pivots as strategic resources to address the challenges presented by the COVID-19 pandemic and explores the role of stakeholders in this process. Employing the theoretical framework of EAT, we developed a three-stage process (see Figure 2) that offers new insights into how the co-development of opportunities with stakeholders impacts the pivot process under conditions of environmental uncertainty. Pivots emerged not merely as processes of business model experimentation but as entrepreneurial actions deeply embedded in social contexts. Our article makes contributions to several areas of the literature, which we discuss in the next sections.

5.1 | Contributions to EAT

Our findings contribute to EAT, particularly by elucidating the mechanisms through which entrepreneurial action is relationally co-constructed under conditions of radical uncertainty. Previous research emphasizes that entrepreneurial action occurs in contexts where the future is unknowable (McMullen et al. 2024; McMullen and Shepherd 2006; Ramoglou et al. 2023). We expand this line of inquiry by showing that entrepreneurial opportunities are actively shaped through dialogue with stakeholders.

Prior studies have used the concept of entrepreneurial imagination (Kier and McMullen 2018) to explain how entrepreneurs mentally simulate future scenarios through distinct cognitive skills. Our findings complement these studies by illustrating how stakeholder interactions inform and enrich entrepreneurs' imaginative processes. In particular, our analysis reveals that in the suggestion gathering and rationalization substages, entrepreneurs integrate stakeholders' insights and experiences into their cognitive frameworks, thus enhancing their ability to envision feasible strategic paths (Conway et al. 2016). Therefore, our empirical evidence deepens our understanding of entrepreneurial imagination by highlighting the essential role of stakeholder contributions in shaping imagined futures. In doing so, we also advance the concept of second-person opportunities (Mitchell et al. 2021) by explicitly describing how these opportunities arise through iterative and reciprocal interactions between entrepreneurs and their main stakeholders in the start-up's environment. Our findings illustrate that entrepreneurs do not simply respond to stakeholders' suggestions but collaboratively shape their ideas. These interactive dynamics transform opportunity recognition from an individual cognitive task into a deeply collaborative process, significantly enhancing existing conceptualizations.

Finally, by demonstrating that stakeholders are not just external contributors but essential co-constructors of entrepreneurial action, our study addresses the need for greater integration of distributed cognition within the EAT (Mitchell et al. 2021). In line with effectuation theory (Sarasvathy 2008), our findings depict entrepreneurs as mobilizing available resources in collaboration with stakeholders to convert uncertain conditions into actionable entrepreneurial opportunities. Thus, we affirm that entrepreneurial action is not an isolated but a relational process.

5.2 | Rethinking Pivots as Entrepreneurial Action Under Uncertainty

Traditionally, literature has approached pivots through the lean start-up methodology (Ries 2011), viewing them

as experimental adjustments to failed hypotheses (Andries et al. 2020; Flechas Chaparro and de Vasconcelos Gomes 2021). Our findings complement this perspective. In line with research indicating that during crises, time constraints and environmental volatility hinder the feasibility of experimentation (Sanasi and Ghezzi 2022) and that entrepreneurs cannot rely solely on predictive information (McMullen et al. 2024; McMullen and Shepherd 2006), our results demonstrate that pivoting is an inherently entrepreneurial action undertaken amidst profound uncertainty. This reconceptualization aligns with the EAT perspective, which posits that opportunity formation is not an isolated endeavor but a social process shaped by interactions with others (Cornelissen and Clarke 2010). Rather than iteratively testing hypotheses, the entrepreneurs in our study engaged in dynamic cognitive and social interaction processes, utilizing stakeholder dialogues to co-construct viable pathways (Kier and McMullen 2018). These findings underscore the differences between a pivot, as traditionally understood in the Lean Start-up approach, and a pivot during crises. In such contexts, a pivot becomes an act of entrepreneurial agency, fundamentally relational and embedded in the social interactions among stakeholders.

Consistent with this reconceptualization of pivoting, our study underscores the critical role of relational dynamics between entrepreneurs and stakeholders. Existing literature positions the entrepreneur as the one conducting experiments and testing hypotheses, with many studies highlighting stakeholder resistance to pivoting (Berends et al. 2021; Snihur and Clarysse 2022). However, our framework elucidates that stakeholders do not merely provide marginal inputs but emerge as genuine co-architects of the pivoting process. This presents a novel contribution to the pivoting literature and reinforces the perspective that opportunity construction is fundamentally a social process (Cornelissen and Clarke 2010; Kier and McMullen 2018).

According to Echterhoff et al. (2009), shared reality emerges when individuals discover a motivated commonality in their experiences, enhancing their connections with others. Our empirical model offers a fresh perspective on this mechanism, illustrating how entrepreneurs and stakeholders collaboratively construct meaning and strategic direction through relational dynamics—commonality, mutuality, and reciprocity (Alvarez and Barney 2020)—that foster alignment and coordinated actions in uncertain situations. Expanding earlier theoretical claims about the significance of these concepts, our findings highlight how entrepreneurs and stakeholders together develop shared mental models, particularly during the evaluation substage. Entrepreneurs do not merely absorb stakeholder input; prior social interactions provide initial insights that catalyze and shape their cognitive evaluations, significantly contributing to forming profoundly shared mental models among all parties involved. These cocreated mental models and the entrepreneur's cognitive analysis influence their perception of the feasibility and desirability of strategic choices (Krueger and Carsrud 1993; McMullen and Shepherd 2006). Consequently, the strategic narratives generated through these relational processes bolster the legitimacy of the pivots made as they reflect and address—directly or indirectly, depending on the entrepreneur's evaluation types—the concerns and expectations of stakeholders (Suddaby et al. 2023). Our findings clarify the relational dynamics through which entrepreneurial cognition is socially constructed, emphasizing the collaborative nature of the pivoting process.

Our model's progression reflects this process: shifting from internal cognitive evaluation to the tangible act of identifying and adopting the pivot typology no longer requires post hoc confrontation with stakeholders to ensure acceptance (Snihur and Clarysse 2022). Legitimization is already embedded in the process itself, as the evaluation substage incorporates stakeholder perspectives from the beginning, making the subsequent action substage a natural continuation of a shared cognitive–relational journey.

5.3 | Implications for Practice

Our findings hold the potential to offer entrepreneurs a concrete tool to navigate radical uncertainty. Specifically, Figure 4 shows a practical framework for structuring decision-making processes during crises that may assist entrepreneurs in moving beyond abstract strategic thinking. It provides a tangible tool for rationalizing stakeholder engagement. It explains the relationships that may occur between specific categories of entrepreneurs' stakeholders with the different types of pivot (product, market, and others). Following the model's logical progression, to design adequate responses to uncertainty, entrepreneurs can create proactive stakeholders' engagement plans, validating and cocreating pivot decisions. Each single category of stakeholder can be engaged for different specific purposes. This proactive alignment is vital in uncertain conditions, where rapidly changing market dynamics demand swift, collectively validated decisions.

Additionally, we propose a list of co-creation strategies that may effectively engage stakeholders in identifying pivot opportunities. The full list of these co-creation strategies can be found in Figure 4. These strategies can assist entrepreneurs in interacting within a broader sociocultural context, ensuring legitimacy, shared purpose, and the development of effective pivot strategies by leveraging various relational dynamics—commonality, mutuality, and reciprocity.

This model can be applied to entrepreneurial settings such as incubators, accelerators, and executive training programs. For example, simulation workshops could use the framework as a scenario-based exercise for start-ups. Entrepreneurs can be guided to identify the type of pivot that aligns with their current situation, map the most relevant stakeholders, and select appropriate engagement tactics, ranging from informal feedback gathering to structured co-design sessions.

6 | Limitations and Future Research Directions

This study is not without limitations, which offer opportunities for future research. The COVID-19 pandemic provided a unique natural experiment for our investigation and enabled us to gather rich data on how start-ups respond to unpredictable environmental shocks. However, the specificity of that crisis in terms of scope and impact may hinder the generalizability of our results. We thus acknowledge that pivot strategies as responses

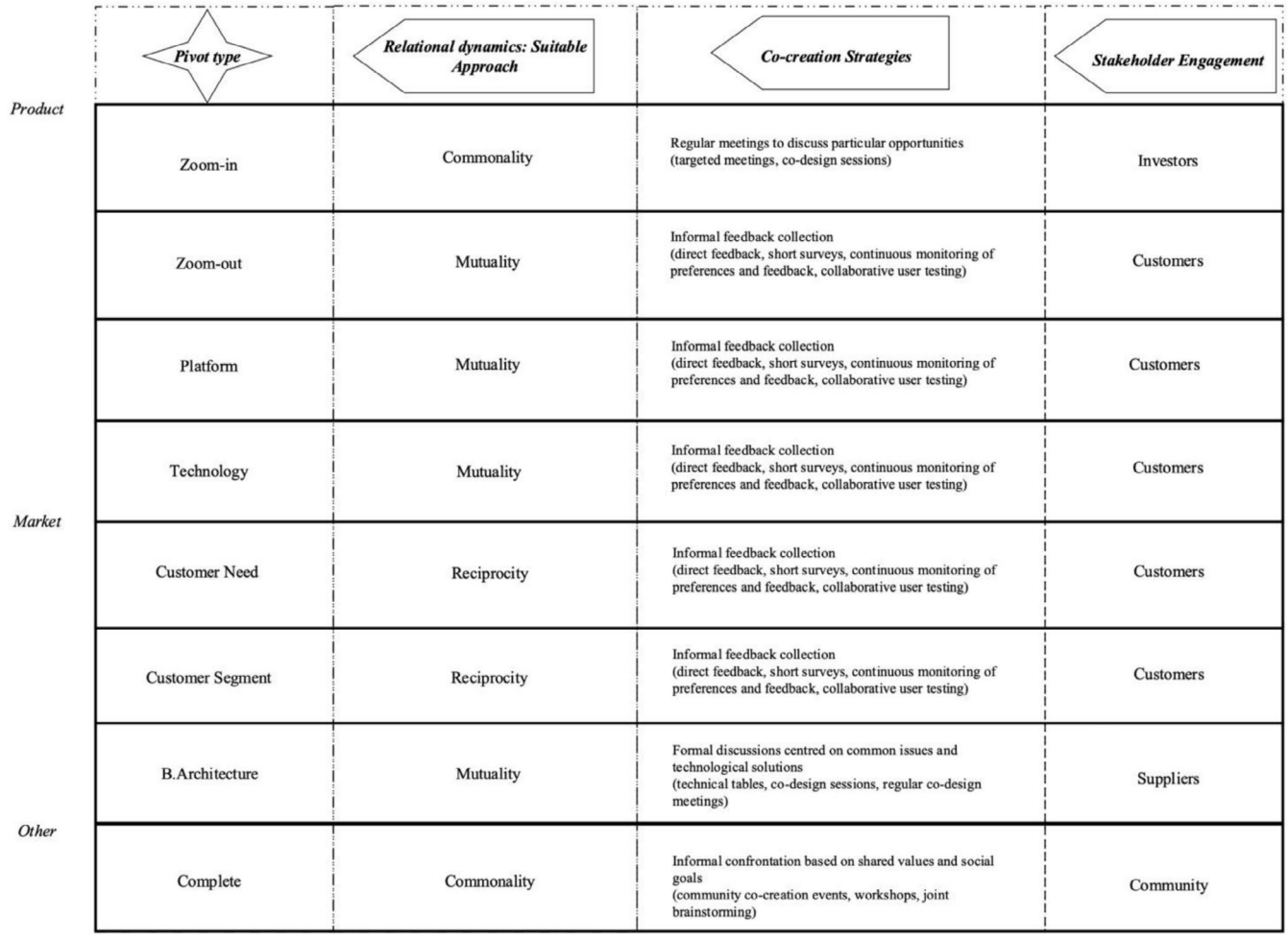

FIGURE 4 | Pivot tool for uncertainty.

to crises may differ depending on the nature of the crisis. We invite future researchers to analyze this topic in another condition of uncertainty. Another limitation of the study concerns the timing of data collection, which took place about 3 years after the start of the COVID-19 pandemic. Due to this temporal gap, interviews reflect entrepreneurs' retrospective accounts, which may be influenced by memory bias or hindsight rationalizations. Longitudinal studies using contemporary data collection could further clarify the concept of pivots under uncertainty. Our model demonstrates that when deciding on a pivot, entrepreneurs consider the feedback received from various stakeholders. However, future studies may focus more on the impact of cognitive biases on pivot decisions and stakeholder engagement.

The study presents two more limitations related to the data sample and level of analysis. First, the analysis focuses on innovative and digital start-ups housed in well-equipped Italian incubators, primarily in tech-related sectors. These circumstances might not represent the obstacles encountered by more resource-constrained ventures in other areas or institutional environments. Thus, our conclusions should be considered within these specific contexts, and we recommend that future studies examine how industry type, geographic factors, and institutional support influence entrepreneurial decision-making during crises. Finally, this study examines the individual cognitive processes of founders, which might overlook the inherently collective nature of decision-making within entrepreneurial teams. Therefore, we recommend that future research explore how founding teams collectively engage in sensemaking, distributed cognition, and collaborative decision-making during uncertain times (Grimes 2018; Burnell et al. 2023; Weissenböck et al. 2025). In particular, future studies could examine how team coordination, cohesion, and goal interdependence shape the evaluation and execution of pivot strategies in crisis settings. Therefore, we invite future researchers to explore the pivot during uncertainty in more diverse settings and to consider different levels of analysis.

Acknowledgments

Open access publishing facilitated by Universita Cattolica del Sacro Cuore, as part of the Wiley - CRUI-CARE agreement.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

References

Allen, J. S., J. G. Combs, J. C. Carr, T. L. Michaelis, and D. L. Joseph. 2024. "More Than One Way to Pivot: The Case for Opportunity and Survival Pivots." *Journal of Management* 51: 1803–1833.

Alvarez, S., and J. B. Barney. 2020. "Has the Concept of Opportunities Been Fruitful in the Field of Entrepreneurship?" *Academy of Management Perspectives* 34, no. 3: 300–310.

Andries, P., K. Debackere, and B. Van Looy. 2020. "Simultaneous Experimentation as a Learning Strategy: Business Model Development Under Uncertainty—Relevance in Times of COVID-19 and Beyond." *Strategic Entrepreneurship Journal* 14, no. 4: 556–559.

Bahrami, H., and S. Evans. 2011. "Super-Flexibility for Real-Time Adaptation: Perspectives From Silicon Valley." *California Management Review* 53, no. 3: 21–39.

Bajwa, S. S., X. Wang, A. Nguyen Duc, and P. Abrahamsson. 2017. ""Failures" to Be Celebrated: An Analysis of Major Pivots of Software Start-Ups." *Empirical Software Engineering* 22: 2373–2408.

Bellavitis, C., M. H. Tran, and J. Wiklund. 2025. "Strategic Pivoting in Deep Tech: An Investigation of NSF I-Corps Teams." *Strategic Change* 34, no. 2: 305–313.

Berends, H., E. van Burg, and R. Garud. 2021. "Pivoting or Persevering With Venture Ideas: Recalibrating Temporal Commitments." *Journal of Business Venturing* 36, no. 4: 106126.

Brinckmann, J., D. Grichnik, and D. Kapsa. 2010. "Should Entrepreneurs Plan or Just Storm the Castle? A Meta-Analysis on Contextual Factors Impacting the Business Planning–Performance Relationship in Small Firms." *Journal of Business Venturing* 25, no. 1: 24–40.

Burnell, D., R. Stevenson, and G. Fisher. 2023. "Early-Stage Business Model Experimentation and Pivoting." *Journal of Business Venturing* 38, no. 4: 106314.

Camuffo, A., A. Cordova, A. Gambardella, and C. Spina. 2020. "A Scientific Approach to Entrepreneurial Decision Making: Evidence From a Randomized Control Trial." *Management Science* 66, no. 2: 564–586.

Conway, M. A., C. Loveday, and S. N. Cole. 2016. "The Remembering–Imagining System." *Memory Studies* 9, no. 3: 256–265.

Conway, T., and T. Hemphill. 2019. "Growth Hacking as an Approach to Producing Growth Amongst UK Technology Start-Ups: An Evaluation." *Journal of Research in Marketing and Entrepreneurship* 21, no. 2: 163–179.

Corbin, J., and A. Strauss. 2015. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 4th ed. Sage.

Cornelissen, J. P., and J. S. Clarke. 2010. "Imagining and Rationalizing Opportunities: Inductive Reasoning and the Creation and Justification of New Ventures." *Academy of Management Review* 35, no. 4: 539–557.

Echterhoff, G., E. T. Higgins, and J. M. Levine. 2009. "Shared Reality: Experiencing Commonality With Others' Inner States About the World." *Perspectives on Psychological Science* 4, no. 5: 496–521.

Eisenhardt, K. M. 1989. "Building Theories From Case Study Research." *Academy of Management Review* 14, no. 4: 532–550.

Flechas Chaparro, X. A., and L. A. de Vasconcelos Gomes. 2021. "Pivot Decisions in Start-Ups: A Systematic Literature Review." *International Journal of Entrepreneurial Behavior & Research* 27, no. 4: 884–910.

Frederiksen, D. L., and A. Brem. 2017. "How Do Entrepreneurs Think They Create Value? A Scientific Reflection of Eric Ries' Lean Startup Approach." *International Entrepreneurship and Management Journal* 13: 169–189.

Gabay-Mariani, L., X. A. Flechas, and T. H. Blank. 2024. "Entrepreneurs' Use of Imagination in Pivot Decision: Toward a Conceptual Model." *Strategic Change* 33, no. 6: 431–444.

Ghezzi, A. 2019. "Digital Startups and the Adoption and Implementation of Lean Startup Approaches: Effectuation, Bricolage and Opportunity Creation in Practice." *Technological Forecasting and Social Change* 146: 945–960. https://doi.org/10.1016/j.techfore.2018.09.017.

Gioia, D. 2021. "A Systematic Methodology for Doing Qualitative Research." *Journal of Applied Behavioral Science* 57, no. 1: 20–29.

Gioia, D. A., K. G. Corley, and A. L. Hamilton. 2013. "Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology." *Organizational Research Methods* 16, no. 1: 15–31.

Giones, F., A. Brem, J. M. Pollack, T. L. Michaelis, K. Klyver, and J. Brinckmann. 2020. "Revising Entrepreneurial Action in Response to Exogenous Shocks: Considering the COVID-19 Pandemic." *Journal of Business Venturing Insights* 14: e00186.

Glaser, B. G., and A. L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research (Grounded Theory)*. Taylor & Francis.

Grimes, M. G. 2018. "The Pivot: How Founders Respond to Feedback Through Idea and Identity Work." *Academy of Management Journal* 61, no. 5: 1692–1717.

Guyottot, O., and E. Le Fur. 2023. "A Systematic Literature Review and Bibliometric Analysis of Research on COVID-19 in Strategy Journals." *Strategic Change* 32, no. 2–3: 85–102.

Hampel, C. E., P. Tracey, and K. Weber. 2020. "The Art of the Pivot: How New Ventures Manage Identification Relationships With Stakeholders as They Change Direction." *Academy of Management Journal* 63, no. 2: 440–471.

Kier, A. S., and J. S. McMullen. 2018. "Entrepreneurial Imaginativeness in New Venture Ideation." *Academy of Management Journal* 61, no. 6: 2265–2295.

Kirtley, J., and S. O'Mahony. 2023. "What Is a Pivot? Explaining When and How Entrepreneurial Firms Decide to Make Strategic Change and Pivot." *Strategic Management Journal* 44, no. 1: 197–230.

Klein, P. G. 2020. "Uncertainty and Entrepreneurial Judgment During a Health Crisis." *Strategic Entrepreneurship Journal* 14, no. 4: 563–565.

Krueger, N. F., and A. L. Carsrud. 1993. "Entrepreneurial Intentions: Applying the Theory of Planned Behaviour." *Entrepreneurship & Regional Development* 5, no. 4: 315–330.

Kuckertz, A., L. Brändle, A. Gaudig, et al. 2020. "Startups in Times of Crisis—A Rapid Response to the COVID-19 Pandemic." *Journal of Business Venturing Insights* 13: e00169.

Leatherbee, M., and R. Katila. 2020. "The Lean Startup Method: Early-Stage Teams and Hypothesis-Based Probing of Business Ideas." *Strategic Entrepreneurship Journal* 14, no. 4: 570–593.

Magnani, G., and D. Gioia. 2023. "Using the Gioia Methodology in International Business and Entrepreneurship Research." *International Business Review* 32, no. 2: 102097.

McDonald, R., and C. Gao. 2019. "Pivoting Isn't Enough? Managing Strategic Reorientation in New Ventures." *Organization Science* 30, no. 6: 1289–1318.

McMullen, J. S., J. R. Fitzsimmons, K. Shetty, and S. Ramoglou. 2024. "A Temporal Typology of Entrepreneurial Opportunities: Implications for the Optimal Timing of Entrepreneurial Action." *Journal of Business Venturing* 39, no. 1: 106356.

McMullen, J. S., and D. A. Shepherd. 2006. "Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur." *Academy of Management Review* 31, no. 1: 132–152.

Mitchell, J. R., T. L. Israelsen, R. K. Mitchell, and D. S. Lim. 2021. "Stakeholder Identification as Entrepreneurial Action: The Social Process of Stakeholder Enrollment in New Venture Emergence." *Journal of Business Venturing* 36, no. 6: 106146.

Ostertag, F., R. Hahn, and I. Ince. 2021. "Blended Value Co-Creation: A Qualitative Investigation of Relationship Designs of Social Enterprises." *Journal of Business Research* 129: 428–445.

Pillai, S. D., B. Goldfarb, and D. A. Kirsch. 2020. "The Origins of Firm Strategy: Learning by Economic Experimentation and Strategic Pivots in the Early Automobile Industry." *Strategic Management Journal* 41, no. 3: 369–399. https://doi.org/10.1002/smj.3102.

Ramoglou, S., S. Zyglidopoulos, and F. Papadopoulou. 2023. "Is There Opportunity Without Stakeholders? A Stakeholder Theory Critique and Development of Opportunity-Actualization." *Entrepreneurship Theory and Practice* 47, no. 1: 113–141.

Ries, E. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Business.

Sala, P. K., S. P. Philbin, and S. Barikzai. 2022. "A Qualitative Research Study of the Tech Startup Journey Through Entrepreneurial Pivoting." *International Journal of Entrepreneurial Behavior & Research* 28, no. 4: 1050–1074. https://doi.org/10.1108/IJEBR-07-2021-0528.

Sanasi, S., and A. Ghezzi. 2022. "Pivots as Strategic Responses to Crises: Evidence From Italian Companies Navigating Covid-19." *Strategic Organization* 22: 495–529. https://doi.org/10.1177/14761270221122933.

Sarasvathy, S. D. 2008. "Effectuation: Elements of Entrepreneurial Expertise." In *Effectuation*. Edward Elgar Publishing.

Shepherd, D. A., and M. Gruber. 2021. "The Lean Startup Framework: Closing the Academic–Practitioner Divide." *Entrepreneurship Theory and Practice* 45, no. 5: 967–998.

Shepherd, D. A., and T. Williams. 2020. "Entrepreneurship Responding to Adversity: Equilibrating Adverse Events and Disequilibrating Persistent Adversity." *Organization Theory* 1, no. 4: 2631787720967678.

Snihur, Y., and B. Clarysse. 2022. "Sowing the Seeds of Failure: Organizational Identity Dynamics in New Venture Pivoting." *Journal of Business Venturing* 37, no. 1: 106164.

Suddaby, R., T. Israelsen, J. Robert Mitchell, and D. S. Lim. 2023. "Entrepreneurial Visions as Rhetorical History: A Diegetic Narrative Model of Stakeholder Enrollment." *Academy of Management Review* 48, no. 2: 220–243.

Tekic, Z., and D. Koroteev. 2019. "From Disruptively Digital to Proudly Analog: A Holistic Typology of Digital Transformation Strategies." *Business Horizons* 62, no. 6: 683–693.

Trincanato, E., and E. Vagnoni. 2024. "Beyond the Land of the Living Death: Early-Stage Transformational Entrepreneurs in Digital Healthcare as Liminality Navigator." *International Journal of Entrepreneurial Behavior & Research* 30, no. 8: 2027–2060.

Weissenböck, E., N. Breugst, and A. Brattström. 2025. "Coordination, Sensemaking, and Idea Work: How Founding Teams Pivot Their Venture Ideas." *Journal of Business Venturing* 40, no. 2: 106472.

Williams, A., G. Atwal, and D. Bryson. 2024. "Entrepreneurial Responses to Covid-19: The Use of Digital Brand Marketing Events in the Craft Alcohol Sector." *Strategic Change* 33, no. 1: 23–33.

Yin, R. K. 2018. *Case Study Research and Applications: Design and Methods*. 6th ed. Sage.

Appendix A

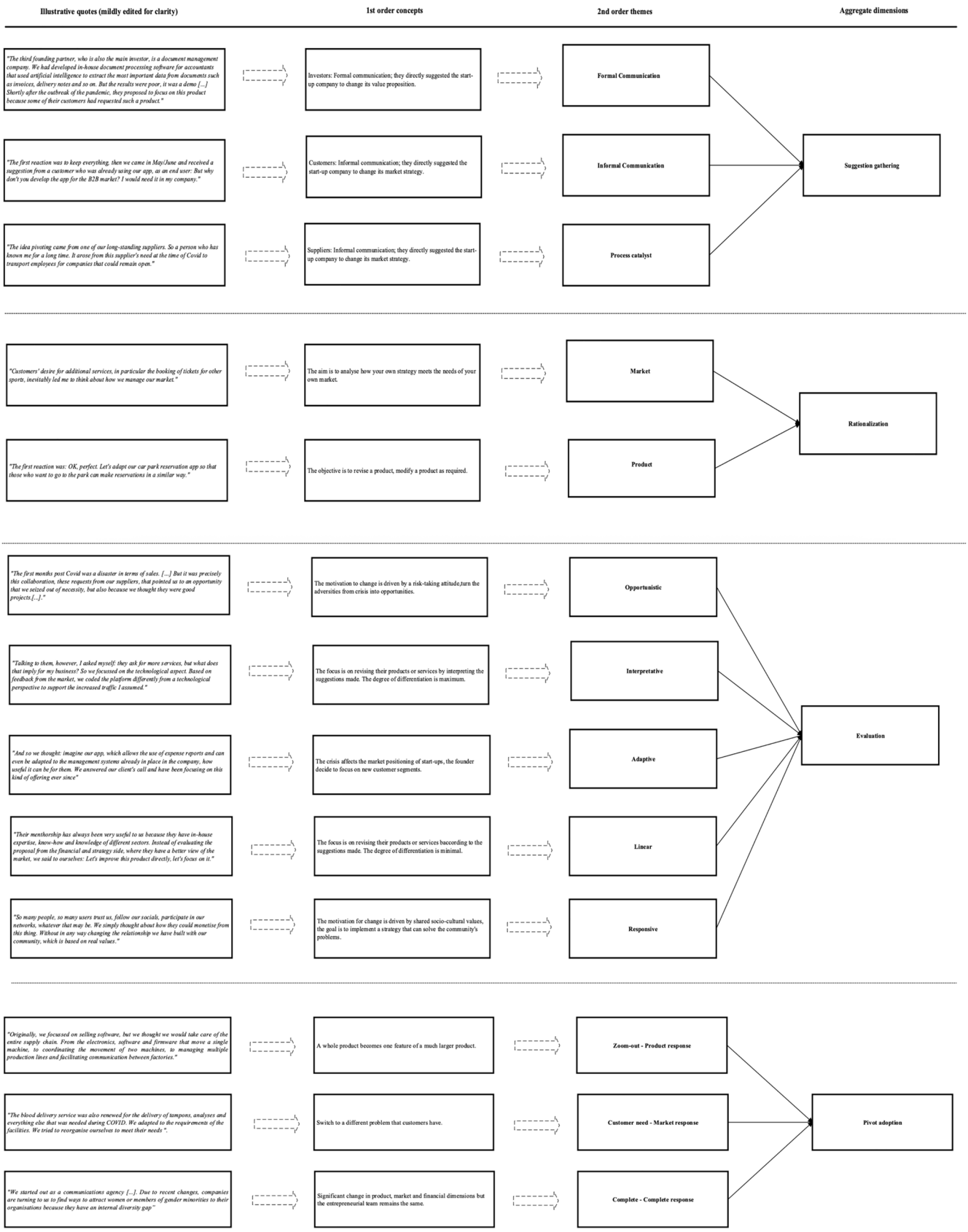

FIGURE A1 | Representation of the data structure.