

The Entrepreneurial Decision-Making Process in Successful Entrepreneurs: A Systematic Review

Abstract

Success of ventures is the foundation of entrepreneurial decision-making yet lacks integration from individual, social, strategic, and technology points of view. More than four decades of concentrated research failed to bring together individual differences, leadership styles, ecosystem facilitators, and computing technologies in turn, evolving over time, to respond to form decisions in uncertain contexts. To address this gap, we conducted a systematic review of 59 Q1-journal articles published between 2015 and 2024, following PRISMA guidelines. We extracted evidence on whether and how each study answered two core questions—factors influencing entrepreneurial decisions, and adaptive processes under uncertainty—while coding for actor, decision focus, methodology, and philosophical stance. Our thematic analysis reveals six determinant clusters: individual cognition and biases; leadership and team integration; social networks and ecosystem intellectual capital; strategic orientation and innovation posture; finance and resource allocations; and institutional and contextual frameworks. In parallel, we identified six adaptive patterns entrepreneurs deploy in uncertain environments: blended intuition-analysis routines; transformational leadership processes; AI-assisted and multi-criteria decision frameworks; evolutionary and simulation-based scenario testing; and reflective learning from failure. Of particular note, 2022 and 2024 witnessed the rise of research activity, recording increasing attention with the acceleration of choice amidst technological and regulation change. Though previous research carefully outlines each process or determinant, it tends to be isolated, cross-sectional, and positivist. Few studies capture dynamic decision flows, multi-actor interactions, or real-time AI integration. We conclude that future research must adopt longitudinal, mixed-method designs—combining decision-log analytics, social-network tracing, ethnographic observation, and controlled AI-augmentation experiments—to map the full decision arc from recognition to reflexive learning. For practice, our integrated framework suggests that cultivating meta-cognitive agility, embedding adaptive team routines, and responsibly incorporating AI tools are critical for entrepreneurial resilience. By uniting trait, team, network, context, and technology lenses, this review lays the groundwork for a dynamic science of entrepreneurial choice capable of guiding ventures through ever-increasing uncertainty.

Keywords: Entrepreneurship, entrepreneurial decision making, uncertainty, systematic review, adaptive processes, cognitive heuristics

1. Introduction

Entrepreneurial decision-making is at the heart of the entrepreneurial process, being the pillar on which new businesses are established and built. It is the act of selecting and deciding on strategies to address particular challenges or take advantage of opportunities in the business world. The process involves a number of key activities, such as analyzing challenges, collecting pertinent data, developing options, and finally choosing suitable courses of action (Amoako et al., 2021). The importance of entrepreneurial decision-making cannot be overemphasized since it is at the center of learning how people develop and exploit business opportunities (Yousfani et al., 2019). Entrepreneurs are always confronted with hundreds of decisions from opportunity discovery to exploitation, including developing business ideas, identifying market niches, solving technical issues, acquiring resources, and hiring core staff (Yousfani et al., 2019; Amoako et al., 2021). A large majority of such decisions are imperative and can have lasting effects on the success and performance of the business (Amoako et al., 2021).

Entrepreneurial decision-making refers to decisions made by entrepreneurs in a bid to leverage opportunities realized in the pursuit of market success (Melovic et al., 2022). These decisions are results of cognitive processes of entrepreneurs, which are affected by entrepreneurs' perceptual patterns, personality traits, decisional styles, and individual cognitive styles (Spicer et al., 2005; Melovic et al., 2022). Most decision-making processes entrepreneurs have been noted to employ include enactment, effectuation, and causation (Rapp et al., 2021).

Notably, entrepreneurial decision-making has to be envisioned as a recursive and ongoing process instead of at specific moments in time. The entrepreneurial process being active in nature implies that entrepreneurs' own interpretation of their situations evolves over time in light of new knowledge, learning, and experience. Entrepreneurs in fast-paced business environments need to shift perceptions and modes of decision-making in order to cope adequately with shifting conditions (Rapp et al., 2021). Sound decision-making must be based on a correct perception of the environment in which the decisions will be made because it is this perception that is required to evaluate possible consequences and make meaningful choice (Yousfani et al., 2019). Entrepreneurial decision-making is a mechanistic dynamic process that starts with opportunity discovery and moves through evaluation to exploitation. This process can be visualized to take place at three fundamental levels of analysis: person (entrepreneur) analysis, environment analysis, and market entry strategic choice processes (Kirkley, 2016). Each of the three steps involves consideration of significant factors that together affect entrepreneurial decisions and their consequences.

The process usually starts with opportunity identification, where entrepreneurs seek out possible business potential (Nouri et al., 2012). It is the first step in searching and scanning for information, which allows entrepreneurs to organize and make sense of what they have discovered in different knowledge areas regarding new opportunities (Sasseti et al., 2022). Upon identification, entrepreneurs proceed to the stage of opportunity evaluation—a turning point in decision-making when they gauge the quality of the observed opportunity and make a choice whether to exploit or neglect it (Tomy & Pardede, 2018; Gagliardi & Novelli, 2025).

For high-tech start-ups in particular, it covers from opportunity discovery through ideation, proof of concept, prototyping, minimum viable product building, achieving product-market fit, and initial product marketing (Bala Subrahmanya, 2022). During the journey, the entrepreneurs face several points of decision-making in both strategic direction and operational execution. Entrepreneurial quality can be quantified on the basis of the capacity to make effective decisions in a timely manner in the opportunity identification, evaluation, and creation process. It also encompasses the contingency capacity to correct problems during implementation and to modify goals and strategies due to environmental changes (Xing et al., 2022).

Notably, successful decision-making calls on entrepreneurs to understand that the use of intuitive information processing alone will not be sufficient for strategic decisions. The information available must be carefully reviewed since entrepreneurs know that the mere activation of previous knowledge structures within long-term memory will not be adequate to ensure effective decisions (Dean & Sharfman., 1996; Sasseti et al., 2022). Within this sequential process, entrepreneurs find themselves in an environment defined by risk and uncertainty. They are exposed to factors like resource limitation, uncertainty, and environmental unfamiliarity, which have a great impact on the decision-making process (Nouri et al., 2012). The decision-making process may be bi-directional, where alterations or failure at one end may affect others. For instance, mis-diagnosis of a requirement or problem will determine the strategic method employed, emphasizing the entrepreneurial decision-making interdependence (Kirkley, 2016). Entrepreneurial decision quality can be used to describe to what degree or extent decisions happen to align with entrepreneurs' targets during decision times (Dean & Sharfman., 1996; Sasseti et al., 2022). This quality of decision is extremely significant for startup performance growth and immediately affects entrepreneurial

performance or failure (Bala Subrahmanya, 2022; Long et al., 2023). This highlights the vital significance of sound decision-making since it can have unrecoverable ramifications to entrepreneurs (Long et al., 2023). Good entrepreneurial decision-making has many key dimensions. It involves the capacity for effective and timely decision-making in opportunity identification, evaluation, and development stages. It also includes the contingency capacity to resolve problems in implementation and to redefine goals and strategies to changes in the environment in uncertain settings (Xing et al., 2022). This flexibility is especially important for high-tech firms with challenges such as inadequate information, uncertainties in the market, uncertainty about the availability of resources, and dynamic business environments (Bala Subrahmanya, 2022).

Entrepreneurial decisions work because of systematic management of information. Successful entrepreneurs understand that decision-making should start with scanning and searching for information to allow them to organize and make sense of what they are learning in different fields of knowledge. When this information is incorporated into entrepreneurs' knowledge structure, it must be processed cautiously (Sasseti et al., 2022; Zhang et al., 2025). Successful entrepreneurs realize that in the context of strategic decisions, simple retrieval of past knowledge structures from long-term memory or exclusive use of intuitive information processing is not sufficient. Rather, they realize that information available must be processed cautiously (Sasseti et al., 2022). Effectiveness in entrepreneurial decision-making also depends on the employed decision-making logic. Entrepreneurs can either employ causation-based or effectuation-based strategies in the market situation (Long et al., 2023). Both strategies are not inherently better, but entrepreneurs must employ the right decision-making logic depending on where they are. Situation-specific adaptation enables entrepreneurs to manage high environmental uncertainty that could otherwise lower the effectiveness of conventional management decision-making practices.

Solid judgment and assessment ability is highly contributing to the efficacy of entrepreneurial decision-making. Judgment and evaluation as a component of entrepreneurial alertness facilitate entrepreneurs to systematically integrate new information within the confines of prevailing knowledge frames, developing the analysis basis for option ranking and strategic action implementation (Kalkan & Kaygusuz, 2012). The process of such systematic evaluation leads entrepreneurs to sort out options by priority according to their strategic objective, allowing well-informed deployment of resources with enhanced possibilities for success.

Entrepreneurship is a primary engine of economic development, innovation, and job creation worldwide. Still, our understanding remains fragmented regarding which of these factors—be they individual traits, mental heuristics, or external inputs—affect the decision-making of those entrepreneurs who repeat success. Equally little known is how such founders adapt their decision-making in the face of volatile markets, shifting customer demands, or overall economic instability. With no explicit integration of the determinants and adaptive processes underlying high-stakes entrepreneurial decision-making, practitioners and researchers alike are denied beneficial insights for facilitating strong decision-making capability in new ventures.

In this paper, we bridge these gaps by providing a systematic review of empirical decision-making studies among successful entrepreneurs during turbulent times. First, we will identify and classify the most important factors—cognitive models, heuristics, social networks, and resource configurations—that most impact top-performing founders' opportunity evaluation and resource allocation. Second, we will examine the mechanisms and patterns through which these entrepreneurs deal with uncertainty—charting the decision pathways, risk-reduction tactics, and learning feedback loops they use when conditions shift in an unpredictable way. By integrating these findings into a single story, our aim is to provide both a conceptual foundation for subsequent research as well as practical recommendations for entrepreneurship training programs so that entrepreneurs will thrive during times of uncertainty.

Research Questions

RQ1: What factors influence the entrepreneurial decision-making process in successful entrepreneurs?

RQ2: How do successful entrepreneurs' decision-making processes operate when faced with unstable conditions and uncertainty?

2. Methods

The study applies a systematic review methodology in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to promote rigor, transparency, and replicability.

2.1. Information Sources and Search Strategy

We performed broad searches of the three main bibliographic databases—Web of Science, Scopus, and Business Source Complete—for January 2015 to December 2024. Our search term string consisted of terms for uncertainty, decision making, success, and entrepreneurship. The final search query was:

(entrepreneur* AND “decision making”)

AND (successful OR high-performing)

AND (uncertainty OR volatility OR “unstable conditions”)

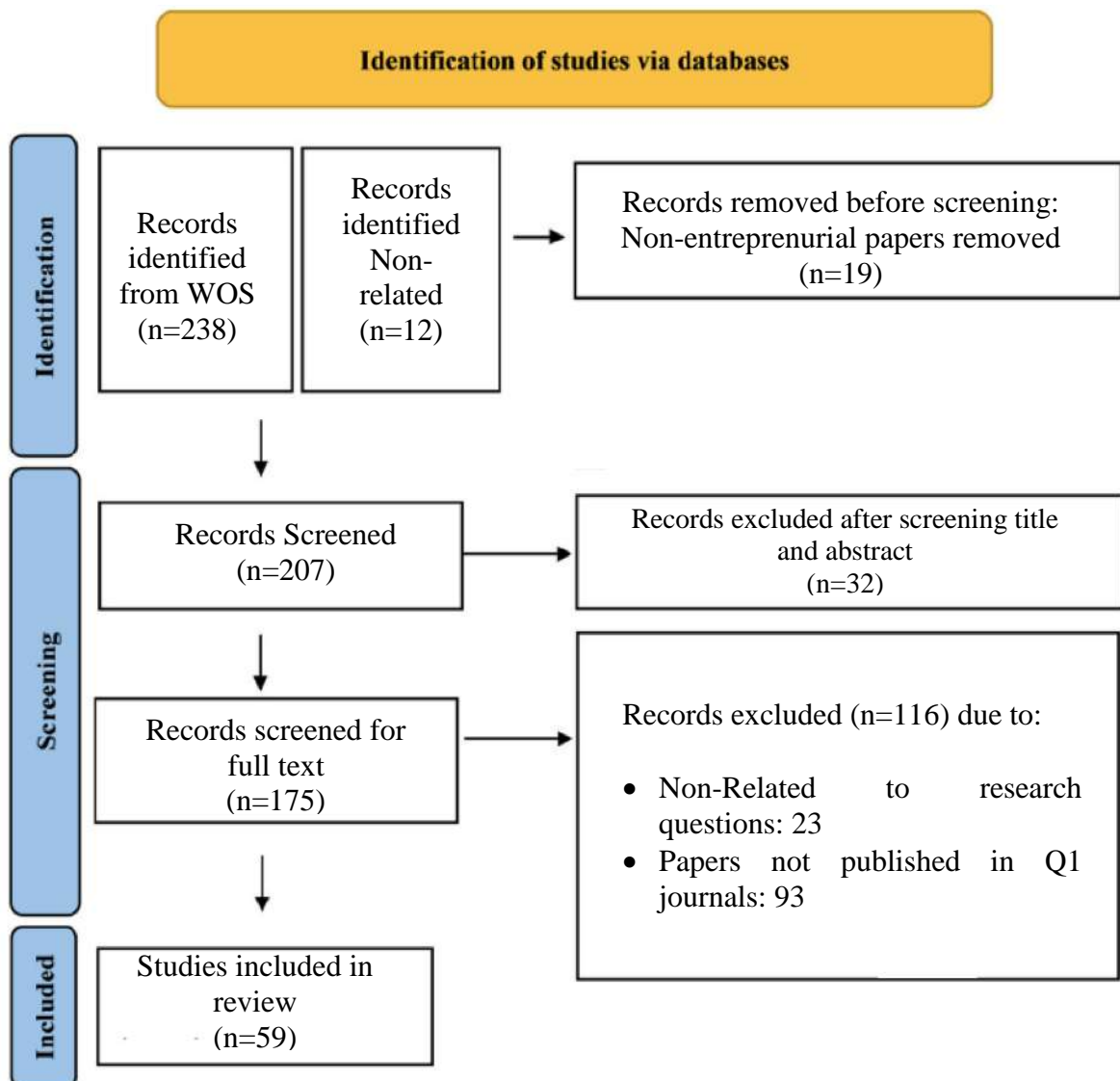


Figure 1. PRISMA Flow Diagram

All searches were limited to peer-reviewed journal articles published in English.

2.2. Inclusion and Exclusion Criteria

To concentrate the most influential empirical evidence, we utilized the following criteria:

Inclusion:

Empirical research (mixed-methods, qualitative, or quantitative) of entrepreneurial decision-making processes that realized demonstrable success.

Published within the 2015-2024 period in Q1-ranked academic journals.

Exclusion:

Review articles, theoretical essays, editorials, book chapters, or conference proceedings.

Studies that were not specifically addressing one or both of our research questions.

2.3. Study Selection and PRISMA Flow

Identification: Our database searches returned 238 unique records.

Screening: We excluded 92 records that were editorials, reviews, or conference papers, leaving 146 full-text articles for screening for eligibility.

Eligibility: Of these, 64 were not from Q1 journals and were excluded. This left us with 82 empirical articles.

Full-Text Analysis: We then searched each of the 82 articles against our two main research questions. Twenty-three studies which did not pose either one or the other question were excluded.

Included: Final list of 59 articles completely met our inclusion criteria and were the basis of this systematic review.

Step-by-step PRISMA flow diagram of these steps is shown in Figure 1.

2.4. Data Extraction and Synthesis

We extracted data on the following from the 59 articles identified:

Study context and sample characteristics (e.g., industry, geography, sample size)

Theoretical frameworks and decision-making models used

Factors identified as internal (e.g., cognitive heuristics, personality traits) and external (e.g., network relationships, resource availability)

Decision-making strategies under uncertainty described (e.g., iterative learning cycles, risk mitigation heuristics)

Data were thematically coded into two matrices reflecting our research questions. We then qualitatively synthesized to determine recurring patterns, divergences, and gaps, ultimately developing an integrative framework of factors and processes defining successful entrepreneurial decision making.

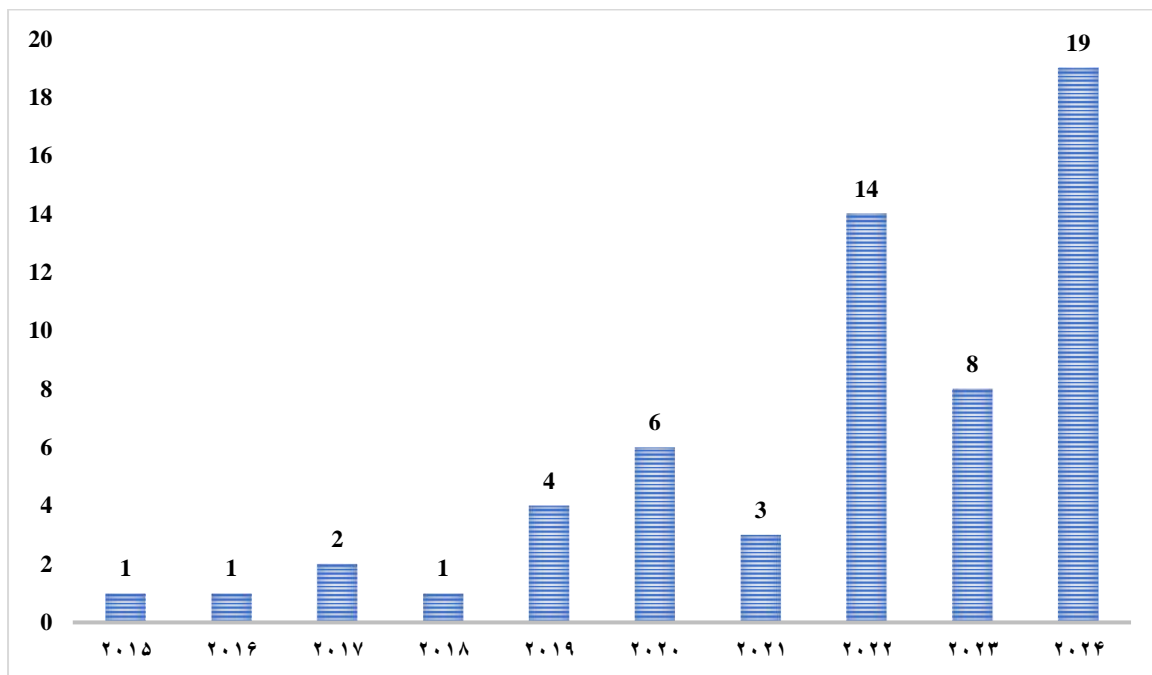
3. Results

The thematic categorization based on underlying theories recognizes evident trends in how researchers react to entrepreneurial decision making. Cognitive and behavioral theories predominate research into individual judgment and heuristics, and strategic management and leadership theories dominate firm-level orientation and team processes research. Social and network orientations account for the relational nature of decision making, and decision-support and analytical models offer formal models for decision making under uncertainty. Institutional and context theory informs studies of regulation and ethical settings, while technology and innovation theory maps the contribution of AI and digital technologies. Third, finance and resource theory and specialist domain perspectives cover funding decisions and domain-specific approaches. All of these clusters provide the basis for the close examination of how each theoretical family develops our two main research questions.

Table 1: Actor Themes (“Who”)

| Theme | Reference |
|--------------------------------------|--|
| Top Executives & Founders | Ahn et al. (2017); Friedman et al. (2016); Narayanan & Lévesque (2019); Motley et al. (2023) |
| SME Owners & Managers | Masiello & Izzo (2019); Basu & Bhola (2022); Petrou et al. (2020); Capolupo et al. (2024) |
| Finance & Investment Actors | Sinyard et al. (2020); Xiao (2020); Chun-Yueh (2022); Petty et al. (2023) |
| Students & Early-Stage Entrepreneurs | Do & Dadvari (2017); Sahoo & Panda (2019); Melović et al. (2022); Ramly & Md Zabri (2024) |
| Ecosystem & Institutional Actors | Grande et al. (2023); Rodríguez-Aceves et al. (2024); Sipper & Batra (2022); Secundo et al. (2024) |

This actor-level classification picks up the rich heterogeneity of decision makers researched. Senior executives and founders prevail in research on corporate strategy and adaptive leadership. Entrepreneurs and SME managers are addressed in growth, internationalization, and organizational environment contexts. Finance and investment actors study fundraising heuristics, equity decisions, and venture-capital procedures. Students and new entrepreneurs are addressed in the research on how formation of intentions and fashioning of biases happen even before firm foundation. Lastly, ecosystem and institutional actors such as policymakers, university presidents, and cultural-heritage professionals show up in research that extends to multi-stakeholder systems instead of decisions at single-firm level.

**Figure 2: Papers based on Publication Year**

To our surprise, our analysis discovers that 2024 hosted 19 of the 59 articles and 2022 was the year of 14 studies—the most productive years in the dataset. This predominance by studies speaks to how far the decision-making habits of successful entrepreneurs have become centrally pertinent and urgent issues in recent academic research.

Table 2: Decision Focus Themes (“What”)

| Theme | Reference |
|------------------------------------|--|
| Cognitive & Heuristic Processes | Sinyard et al. (2020); Sasseti et al. (2022); Puglisi et al. (2022); Manesh et al. (2022) |
| Strategic Orientation & Innovation | Kock & Gemünden (2021); Mondal et al. (2023); Basu & Bhola (2022); Xiao et al. (2023) |
| Internationalization & Networks | Masiello & Izzo (2019); Vlačić et al. (2022); Petrou et al. (2020); Amoozad Mahdiraji et al. (2022) |
| Financing & Equity Decisions | Chun-Yueh (2022); Xiao (2020); Narayanan & Lévesque (2019); Lerro et al. (2024) |
| Governance & Institutional Logic | Sipper & Batra (2022); Brunner-Kirchmair et al. (2024); Rodríguez-Aceves et al. (2024); Kastanakis et al. (2024) |

Splintering "What" entrepreneurs choose into five excellent places. Heuristic and cognitive strategies capture individual-level mental heuristics and simplifications. Innovation and strategic direction target firm position—entrepreneurial, green, quality, or digital—and their implications for results. Networks and internationalization study social relations and cognitive flaws driving foreign entry and growth. Financing and equity choices are interested in structures of capital-raising, from complex multi-criteria ones to casual crowdfunding suggestions. Lastly, governance research and institutional logic examine how laws, ethics, firm-family norms, and university organization provide the context on which decisions are made.

Table 3: Methodological Themes (“How”)

| Theme | Reference |
|-----------------------------------|---|
| Quantitative Surveys & SEM | Do & Dadvari (2017); Sasseti et al. (2022); Kock & Gemünden (2021); Xiao et al. (2023) |
| Qualitative & Case Studies | Xiao (2020); Grande et al. (2023); Rodríguez-Aceves et al. (2024); Engbring & Hajjar (2022) |
| Multi-Criteria & Delphi Models | Mondal et al. (2023); Chun-Yueh (2022); Amoozad Mahdiraji et al. (2022) |
| Computational & Simulation | Zhao et al. (2020); Zhou et al. (2022); Petty et al. (2023) |
| Conceptual & Literature Synthesis | Shepherd & Majchrzak (2022); Racat et al. (2024); Secundo et al. (2024); Kastanakis et al. (2024) |

The "How" of such studies ranges across five families of methodology. Surveys and SEM prevail in empirical studies of attitudes, biases, and resource impacts. Qualitative and case studies are selected for in-depth, context-sensitive investigation of ecosystems, trust, or governance. Multi-criteria and Delphi models provide formal decision-support models in green entrepreneurship and equity finance. Computational simulations experiment dynamic or evolutionary hypotheses through agent-based models or game theory. Finally, concept and literature syntheses set the stage for new integrative frameworks on AI augmentation, effectuation/causation, and paradox theory.

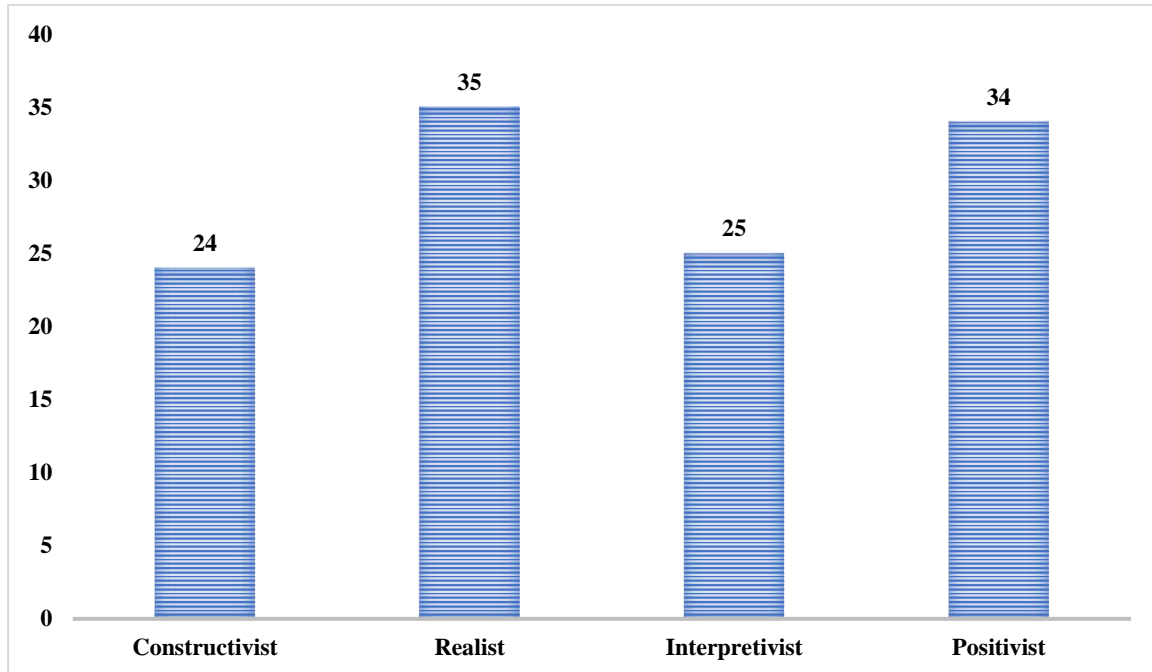


Figure 3: Ontological View and Epistemological Stance

Most large-scale, hypothesis-driven surveys and modeling papers are realist–positivists, taking decision processes as objective facts quantifiable by statistics. Constructivist–interpretivist studies—case studies, ethnographies, conceptual syntheses—rather view decision making as co-constructed in context, appreciating rich narratives and theoretical elaboration over generalizable effect sizes. An awareness of these philosophical fault lines assists in locating each study's claims and selecting suitable designs for new research.

Table 4: Articles Grouped by Theoretical Families

| Theoretical Family | Reference |
|--|--|
| Cognitive & Behavioral Theories | Racat et al. (2024), Manesh et al. (2022), Puglisi et al. (2022), Pellegrini & Ciappei (2015), Capolupo et al. (2024) |
| Strategic Management Theories | Ahn et al. (2017), Kock & Gemünden (2021), Basu & Bhola (2022), Mot-ley et al. (2023), Ex-pósito & Sanchis-Llopis (2020) |
| Leadership & Capability Theories | Friedman et al. (2016), Mondal et al. (2023), Wu et al. (2024), Xiao et al. (2023) |
| Social & Network Theories | Masiello & Izzo (2019), Grande et al. (2023), Sahoo & Panda (2019), Lerro et al. (2024) |
| Decision-Support & Analytical Theories | Chun-Yueh (2022), Amoozad Mahdiraji et al. (2022), Zhao et al. (2020), Zhou et al. (2022) |
| Institutional & Context Theories | Petrou et al. (2020), Sipper & Batra (2022), Rodríguez-Aceves et al. (2024), Vila-Boix et al. (2024) |
| Technology & Innovation Theories | Shepherd & Majchrzak (2022), Bonci et al. (2018), Secundo et al. (2024), Tóth et al. (2020) |
| Finance & Resource Theories | Narayanan & Lévesque (2019), Xiao (2020), Sinyard et al. (2020), Petty et al. (2023) |
| Specialized Domain Theories | Baloch et al. (2022), Rodríguez-Aceves et al. (2024), Martielli et al. (2024), Gülden & Er (2019) |

This grouping encapsulates the numerous "base theories" into nine rational families. Cognitive & Behavioral encompasses mental models, heuristics, and structures of bias. Strategic Management covers orientation and resource-based perspectives of portfolio and internationalization strategy. Leadership & Capability centers on dynamic capabilities and leadership theories that affect flexibility. Social & Network presents social capital, ecosystem, and university-context perspectives. Decision-Support & Analytical comprises multi-criteria, fuzzy-logic, and simulation-based methods. Institutional & Context covers regulation, ethics, and organizational environment theories. Technology & Innovation targets AI, collective intelligence, and planned behavior in innovation settings.

Finance & Resource targets agency, trust, and private-equity heuristics.

Lastly, Specialized Domain packages theories used to tackle tourism, family governance, or cooperative university settings. This organization guides researchers through the literature by conceptual ancestry and discovers novel intersectionalities—such as integrating cognition and networks or inserting AI-support into strategic management frameworks.

Table 5: Overview of 59 Studies and Response to Research Questions

| No | Reference | Aim | Answer to RQ1 | Answer to RQ2 |
|----|----------------------------|--|---|---|
| 1 | Ahn et al, 2017 | To examine the influence of CEO characteristics on the adoption of open innovation (OI) modes in SMEs. | Yes. CEO characteristics such as positive attitude, entrepreneurial orientation, patience, and education influence strategic decision-making in SMEs. | Yes. The impact of CEO traits on decision-making varies based on the degree of uncertainty in OI modes, requiring strategic adjustments and complementary management recruitment. |
| 2 | Do & Dadvari, 2017 | To investigate the link between entrepreneurial attitude orientation, the dark triad personality characteristics, and entrepreneurial purpose. | Yes. Entrepreneurial decision-making is influenced by factors such as innovativeness, risk-taking, achievement motivation, self-confidence, locus of control, and dark triad qualities (Machiavellianism, narcissism, and psychopathy). | No |
| 3 | Friedman et al, 2016 | To investigate how CEOs' transformative leadership affects strategic decision-making and the flexibility of small entrepreneurial enterprises. | Yes. Transformational leadership, behavioral integration, and comprehensiveness in decision-making influence entrepreneurial decision-making. | Yes. They enhance adaptability by fostering behavioral integration and comprehensive decision-making processes within their teams. |
| 4 | Masiello & Izzo, 2019 | To investigate the influence of interpersonal social networks in conventional small and medium-sized enterprises' worldwide strategy. | Yes. Interpersonal social networks influence decision-making by shaping opportunity exploration, internationalization paths, and performance through heuristics, trust, and path-dependent effects. | No |
| 5 | Mondal et al, 2023 | To identify, prioritize, and create a hierarchical link between the enablers of green entrepreneurship in the circular economy for MSMEs in the manufacturing sector. | Yes. Technology-based enablers, effective technical infrastructure, societal norms and culture, attitude toward new technology, R&D innovation capabilities, and environmental legislation all have an impact on entrepreneurial decision-making in green businesses. | No |
| 6 | Sahoo & Panda, 2019 | To explore the effects of contextual antecedents on university graduates' individual entrepreneurial orientation (IEO) and its relationship to their entrepreneurial intentions (EIs). | Yes. The availability of beginning funding, access to business knowledge, social networks, and a supportive academic environment all affect entrepreneurial decision-making. | No |
| 7 | Shepherd & Majchrzak, 2022 | To explore the intersection of artificial intelligence (AI) and entrepreneurship, proposing AI as a super tool for entrepreneurship and highlighting potential areas of future research. | Yes. The paper discusses AI tools and opportunities that can influence entrepreneurial decision-making. | Yes. It suggests AI can be used as a tool to navigate uncertainty in entrepreneurship. |
| 8 | Petrou et al, 2020 | To investigate how strategic decision-making processes, specifically procedural rationality and politicization, affect the accelerated internationalization of SMEs. | Yes. It identifies procedural rationality and politicization as influencing factors in the decision-making process. | No |

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|----|---------------------------------|---|---|--|
| 9 | Pellegrini & Ciappei, 2015 | To examine the implications of practical reason for entrepreneurial activities, particularly focusing on the role of perspicacity in entrepreneurial judgment. | Yes. It identifies perspicacity as a key factor influencing entrepreneurial judgment. | Yes. It argues that perspicacity enables entrepreneurs to judge correctly in uncertain situations, allowing them to make decisions in blurred conditions. |
| 10 | Kock & Gemünden, 2021 | To explore how a firm's entrepreneurial approach influences the link between strategic portfolio management methods and portfolio performance. | Yes. It identifies entrepreneurial orientation (innovativeness and risk-taking) as factors influencing decision-making in successful firms. | Yes. It explains that firms with higher innovativeness and risk-taking benefit more from strategic practices like stakeholder engagement and agile portfolio management, especially in uncertain conditions. |
| 11 | Chun-Yueh, 2022 | To develop a model combining triangular fuzzy numbers and the analytic hierarchy process (AHP) to evaluate the optimal external equity financing alternative for start-ups in the FinTech industry. | Yes. It identifies the evaluation criteria and sub-criteria, with a focus on the cost of capital and external equity financing options as influencing factors. | Yes. The model provides a structured decision-making approach to assess optimal financing under uncertain conditions, guiding entrepreneurs in the FinTech start-up sector. |
| 12 | Tóth et al, 2020 | Understanding the psychological dimensions that influence innovative decision-making in the Hungarian food sector. | Yes. Psychological elements such as a favorable attitude toward innovation, appraisal of innovation, and strategic purpose impact decision-making, but a lack of research skills and particular expertise impedes innovation. | No |
| 13 | Xiao, 2020 | To explore the role of trust in the decision-making process of lead and follow-on investors in equity crowdfunding (ECF) campaigns. | Yes. Trust-building through selective signaling, physical interactions, and ECF platform facilitation influences investor decision-making. | Yes. Entrepreneurs and investors rely on trust, selective and formative information, and additional insights from crowdfunding to manage extreme risk and uncertainty in early-stage investments. |
| 14 | Sinyard et al, 2020 | To examine the decision-making processes in buyout decisions of small-to-medium businesses, focusing on heuristics and affect in private equity investment selection. | Yes. It identifies heuristics and affect as key factors influencing investment decision-making. | No |
| 15 | Melović et al, 2022 | To assess how the characteristics of entrepreneurs in transition economies and their participation in decision-making influence their propensity for rational or risky decisions. | Yes. Factors include demographic characteristics, business experience, participation in decision-making, employee inclusion, economic development, national culture, and intuition. | Yes. Younger entrepreneurs with less experience rely on intuition, making riskier decisions, while older entrepreneurs with more experience make more rational decisions. |
| 16 | Racat et al, 2024 | To propose an integrative theoretical framework for effectuation and causation models in entrepreneurial decision-making based on the offloading process. | Yes. Cognitive antecedents influence decision-making by determining whether entrepreneurs use effectuation or causation models. | Yes. Entrepreneurs alternate between effectuation and causation models depending on the situation, using cognitive offloading to adapt their decision-making process. |
| 17 | Sassetti et al, 2022 | To examine the relationship between entrepreneurial alertness and decision-making effectiveness, focusing on cognitive styles. | Yes. Entrepreneurial alertness and a rational cognitive style influence decision-making effectiveness, while intuition does not play a significant role. | No |
| 18 | Akulava & Guerrero, 2023 | To investigate the influence of causal-effectual reasoning, gendered decision-making styles, and innovation tensions on innovation outcomes in SMEs. | Yes. Factors include effectual reasoning, gendered decision-making styles, and innovation tensions. | Yes. They rely on effectual reasoning, which positively impacts innovation outcomes, and women tend to use a hybrid causal-effectual decision-making strategy. |
| 19 | Exposito & Sanchis-Llopis, 2020 | To analyze how different types of innovation influence the entrepreneurial decision-making process regarding SMEs' export and import activities. | Yes. Factors include product, process, and organizational innovation, as well as their cumulative effects. | No |
| 20 | Hong et al, 2024 | To explore how e-commerce technologies influence the entrepreneurial marketing decision-making process of pure-play e-retailers in China. | Yes. Factors include trend orientation, innovation, data-driven decision-making, platform engagement, and proactive strategies. | No |
| 21 | Kitsios & Kamariotou, 2021 | To investigate the effect of IS strategic planning on IT executives' satisfaction using MCDA in Greek SMEs. | Yes. IS strategy and MCDA-based decision-making influence entrepreneurship and innovation. | No |

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|----|----------------------------|--|---|--|
| 22 | Baloch et al, 2022 | To research the influence of the business environment on organizational performance in Pakistan, with a focus on leadership ability, organizational culture, and organizational politics. | Yes. Leadership capability, organizational culture, and organizational politics all have an impact on decision-making. | No |
| 23 | Narayanan & Lévesque, 2019 | To model ownership division in venture capital funding using agency theory, taking into account the contributions of entrepreneurs, venture capitalists, and investment amounts. | Yes. Factors include the entrepreneur's work, the venture capitalist's advice/monitoring, and the investment amount. | No |
| 24 | Vlačić et al, 2022 | To investigate the impact of entrepreneurial cognition on early internationalization and post-entry speed. | Yes. The study identifies entrepreneurial cognition, particularly the balance between experiential and rational cognitive systems, as a key factor influencing the speed of internationalization. | Yes. Entrepreneurs with higher levels of experiential cognition tend to make faster internationalization decisions, while those with a more rational approach are more gradual in their decision-making process. |
| 25 | Masucci et al, 2021 | Analyze the decision-making process and criteria used to evaluate and choose new corporate ventures at a large energy company's internal corporate venture unit. | Yes. The study finds variations in the criteria used to assess enterprises at various phases. | No |
| 26 | Motley et al, 2023 | To investigate how a venture's performance results after environmental change are influenced by its beginning environmental circumstances and team makeup. | Yes. The study identifies team composition and the interaction with environmental dynamism as key factors influencing decision-making. | Yes. The study highlights the importance of flexibility in decision-making and the synchronization of predictions regarding environmental change with team composition decisions. |
| 27 | Grande et al, 2023 | To examine the dynamics of intellectual capital (IC) in entrepreneurial ecosystems (EEs) and offer a taxonomy of major IC facilitators. | Yes. The study identifies and examines enablers of intellectual capital, which influence the decision-making process in entrepreneurial ecosystems. | Yes. The study suggests that the dynamic interplay of human, relational, and organizational capital enables adaptive decision-making in entrepreneurial ecosystems, even in the face of uncertainty. |
| 28 | Bonci et al, 2018 | To provide a framework for decision-making in adaptive reuse of cultural heritage (CH) processes using contemporary artificial intelligence (AI) technology, with the goal of accelerating and improving the quality of adaptive CH reuse. | Yes. The paper discusses AI-based decision-making technologies, governance models, and business models that influence decision-making in the context of adaptive reuse of cultural heritage. | Yes. The AI framework and eco-system support decision-making under uncertainty by leveraging machine learning, predictive analytics, and expert networks. |
| 29 | Basu & Bhola, 2022 | To experimentally model and examine the linkages between quality management (QM), information technology (IT), and entrepreneurial culture (EC), as well as their influence on the performance of Indian IT-enabled service SMEs. | Yes. The study identifies key factors like quality management, information technology, and entrepreneurial culture that influence decision-making in SMEs. | Yes. It highlights the role of information technology, quality management, and entrepreneurial culture in navigating challenges and improving performance in uncertain environments. |
| 30 | Petty et al, 2023 | To examine the venture capital (VC) decision-making process under changing conditions and limited, ambiguous information, as well as to investigate how decision-making speed and cues used by decision-makers evolve over time. | Yes. It identifies the influence of factors such as the source of a proposal and available investment capital on VC decision-making. | Yes. It shows how decision-making speed and the use of specific information cues evolve over time, especially in the context of uncertain conditions. |
| 31 | Zhao et al, 2020 | To model the decision-making process of new generation entrepreneurs and analyze their innovation behaviors under different scenarios using a computational experiment method. | Yes. It identifies factors like individual innovation spirit, ability, cognition of social capital, capital, technology, and talent conditions as influencing innovation decisions. | Yes. It highlights the importance of risk evaluation based on individual characteristics and suggests a risk guarantee mechanism, such as innovation insurance, to support decision-making under uncertainty. |
| 32 | Scuotto et al, 2024 | To explore the nature of innovation failure at individual and team levels and provide insights into how failure can be understood and | Yes. It identifies how the perception of failure, organizational management approaches, and openness to learning from failure influence decision-making in innovation. | Yes. It suggests that viewing failure as an opportunity for learning and adopting a less centralized management style can guide decision-making under uncertainty. |

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| | | utilized in the innovation process. | | |
| 33 | Manesh et al, 2022 | To explore the role of intuition in entrepreneurial decision-making and its relationship with rationality using the dance metaphor. | Yes. It highlights intuition, rationality, and their interplay as key factors in decision-making. | Yes. It discusses how intuition, alongside rationality, helps entrepreneurs cope with uncertainty and thrive in unpredictable environments. |
| 34 | Puglisi et al, 2022 | To introduce subjective risk intelligence (SRI) in the context of small enterprises and examine how rationality and intuition impact entrepreneurial decision-making, particularly in terms of financial equilibrium. | Yes. The study reveals several elements that influence entrepreneurial decision-making, including inventive skill, problem-solving self-efficacy, emotional stress vulnerability, and a negative attitude toward ambiguity. | Yes. The study explores how the balance between intuitive and rational thinking affects decision-making under uncertainty, particularly in financial risk-taking. |
| 35 | Zhou et al, 2022 | To study the entrepreneurial ecosystem's symbiotic decision-making process using an evolutionary game model, and to explore the dynamics of the platform ecosystem and its impact on business performance. | Yes. The study identifies factors like symbiotic decisions, evolutionary paths, and dynamic ecosystem evolution as key influences on entrepreneurial decision-making. | Yes. The study explores how entrepreneurs make decisions within the dynamic and uncertain environment of the entrepreneurial ecosystem and platform ecosystem, considering evolutionary and symbiotic factors. |
| 36 | Pizarro Escribano & Miranda González, 2023 | To explain and assess the entrepreneurial process, as well as the important factors that influence the choice to establish a work-based social company. | Yes. It outlines critical components in the decision-making process for starting social companies. | No |
| 37 | Sipper & Batra, 2022 | To identify and amplify the voices of experts who advise practitioners on foreign market entrance decisions, with a focus on the importance of the rule of law, ethical atmosphere, and experts' knowledge of investment financial success after five years. | Yes. It emphasizes the rule of law, ethical atmosphere, and financial success in international market entrance choices. | No |
| 38 | Amoozad Mahdiraji et al, 2022 | To identify, analyze, classify, and rank the major barriers faced by international entrepreneurs (IEs) when entering the agrifood sector of an emerging economy (specifically Iran). | Yes. It identifies key barriers like infrastructure, technology limitations, policy factors, and innovation in the agrifood sector. | Yes. It discusses how IEs navigate barriers and uncertainties in the agrifood sector using a decision-making approach that evaluates risks and challenges. |
| 39 | Vazirani et al, 2023 | To examine the presence, direction, and magnitude of bias in investors' perceptions of qualitative information signals when evaluating new venture bids. | Yes. The study discusses how investors' ability and motivation, along with the type of information signals, influence their decision-making. | No |
| 40 | Nikiforou, 2023 | To propose a process model that provides new theoretical insights into entrepreneurial team formation, specifically addressing the decision of when and who should be added as a surrogate entrepreneur. | Yes. The study discusses factors such as the need for a surrogate entrepreneur and the timing and selection process for adding team members. | Yes. The process model addresses the uncertainty regarding market opportunities and the decision-making process for team formation in such conditions. |
| 41 | Engbring & Hajjar, 2022 | To investigate the contradiction between earning money and achieving the social goal in community forest businesses (CFEs) by conducting a case study of four CFEs in Oaxaca, Mexico, and examining their organizational choices and practices. | Yes. It analyzes how leadership structures, decision-making procedures, enterprise locations, and benefit-distribution systems influence organizational decisions. | Yes. It explores how CFEs navigate tensions between social and financial goals, revealing how organizational structures and practices adapt to manage these challenges. |
| 42 | Lerro et al, 2024 | Identify and categorize the knowledge-based elements that underpin crowdfunding and technical scouting techniques, as well as provide a theoretical framework to guide crowdfunding decision-making processes. | Yes. It identifies intellectual capital components and knowledge-based dimensions that influence crowdfunding strategies. | Yes. It offers a knowledge-based framework that supports entrepreneurs in managing intellectual capital and decision-making in the face of uncertainty. |

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| 43 | Deptula, 2024 | To define the priority criteria for assessing the risk of innovation and update them according to new conditions, such as the COVID-19 pandemic, in order to influence decision-making processes in implementing or rejecting innovative projects. | Yes. It identifies the risk assessment criteria that influence innovation decision-making. | Yes. It updates risk evaluation criteria, including factors like the COVID-19 pandemic, to guide decision-making under uncertainty. |
| 44 | Vila-Boix et al, 2024 | The purpose of this study is to investigate how social network ads effect user privacy and intimacy issues, as well as attitudes of entrepreneurial legitimacy. | Yes. It reveals how perceptions of legitimacy, shaped by privacy concerns, influence entrepreneurial decision-making. | No |
| 45 | Wu et al, 2024 | To explore how historical aspiration shortages and industrial competitiveness influence the link between management competence and company digital transformation. | Yes. It identifies managerial ability, historical aspiration shortfalls, and industrial competitiveness as key factors influencing decision-making. | Yes. It highlights how managerial ability, historical aspiration shortfalls, and industrial competitiveness impact decision-making in the context of digital transformation under uncertainty. |
| 46 | Xiao et al, 2023 | The purpose of this study is to look at the link between strategic orientation components and green dynamic capabilities, as well as their influence on green product and process innovation in China's medium-to-large manufacturing enterprises. | Yes. It identifies strategic orientation components and green dynamic capabilities as key factors influencing entrepreneurial decision-making. | No |
| 47 | Ramly & Md Zabri, 2024 | Using an enhanced Unified Theory of Acceptance and Use of Technology (UTAUT) framework, we will look at the factors that influence Malaysian investors' intents to invest in Non-Fungible Tokens (NFTs). | Yes. It identifies Performance Expectancy and Social Support as significant factors influencing investment decisions. | No |
| 48 | Kastanakis et al, 2024 | Through an integrative approach, we will investigate if and how family entrepreneurs' biases are connected to paradoxes, and how they impact behavior in family firms. | Yes. It explores how biases and paradoxes influence family entrepreneurs' behavior and decision-making. | No |
| 49 | Secundo et al, 2024 | To investigate how emerging trends in AI platforms and technologies impact innovation ecosystems, enabling new forms of value creation, and to provide frameworks for improving decision-making processes in AI-based innovation ecosystems. | Yes. It identifies the role of AI technologies and collaboration in shaping decision-making processes within innovation ecosystems. | Yes. It discusses how AI-based innovation ecosystems and collaboration can provide agility and value-driven decision-making in uncertain environments. |
| 50 | Brunner-Kirchmair et al, 2024 | To examine how religion changes family companies' ethical behavior toward their employees in a secularized culture in Western Europe, as well as to investigate the many ways in which religiosity influences family firm decision-making. | Yes. It identifies religiosity as a significant factor influencing decision-making in family firms, highlighting different approaches based on the integration of religious and business logics. | Yes. It discusses how family firms navigate the conflict or complementarity between business and religion logics, employing strategies like compromise or avoidance to manage decision-making in uncertain environments. |
| 51 | Lukoseviciute & Tyrväinen, 2024 | To investigate trail-related businesses' impressions of environmental and recreational facilities, as well as to assess the potential benefits of trail-related recreation investments on business operations and profitability. | Yes. It identifies environmental and recreational amenities, branding, and marketing as factors influencing decision-making for trail-related businesses. | No |
| 52 | Allal-Chérif et al, 2022 | To comprehend how religion influences the management discourse of American managers and business executives who attend The | Yes. It identifies five empirical principles influenced by religion that shape managerial decisions. | No |

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| | | Church of Jesus Christ of Latter-day Saints. | | |
| 53 | Bue & Martínez-Zarzoso, 2024 | To study whether female-led enterprises in the Caribbean are less productive than male-led equivalents, with an emphasis on the gender of the senior management rather than ownership. | Yes. It identifies business constraints like access to finance, political environment, and electricity access as influencing decision-making. | No |
| 54 | Rodríguez-Aceves et al, 2024 | To investigate how higher education institutions (HEIs) use an entrepreneurial university (EU) framework, with a special focus on Mondragon University's engineering department (MGEP) and its tactics for embracing entrepreneurial behaviors (EBs). | Yes. It identifies the governance model, long-term vision, and collective participation as factors influencing decision-making. | No |
| 55 | Martielli et al, 2024 | To look at the relationship between cultural traits, interculturality, and early-stage fundraising results for innovative firms. | Yes. It identifies cultural traits of startup founders and intercultural experience as key factors influencing fundraising success. | No |
| 56 | Gülden & Er, 2019 | The purpose of this study is to investigate the entrepreneurial potential and constraints associated with Design-Led Innovation (DLI) in Turkish family-owned furniture firms. | Yes. The paper identifies vision for design awareness, strengthening existing know-how, customer-oriented strategy, and investment in knowledge as factors influencing decision-making. | No |
| 57 | Capolupo et al, 2024 | To examine how heuristic-driven biases (overconfidence, availability, and anchoring) influence entrepreneurial decision-making (EDM), as well as the impact of SMEs, organizations, and contextual variables in these connections. | Yes. The study identifies cognitive biases and organizational factors (SME size and age) influencing entrepreneurial decision-making. | Yes. It highlights how biases and SME characteristics mitigate decision-making under uncertainty. |
| 58 | Neckebrou & Zellweger, 2024 | To examine how four decision-making structures (unanimous approval, individual autonomy, majority voting, and lead entrepreneur) influence the performance of entrepreneurial teams balancing economic and noneconomic goals in different environments. | Yes. The study identifies decision-making structures and goal diversity as key factors influencing entrepreneurial decision-making. | Yes. It shows that unanimous approval performs best in fast-changing environments, improving both economic and noneconomic outcomes. |
| 59 | Faridian et al, 2024 | To examine how implementing a causation process in the early phases of venture creation affects long-term innovation results, both directly and indirectly, via interactions with three types of social capital. | Yes. The study identifies the adoption of causation processes and social capital as influencing factors on decision-making. | Yes. It shows that causation processes interact with social capital to impact innovation, which could help in uncertain environments. |

A “Yes” in a column means that the study provides direct evidence or argument responding to that question; “No” means it does not.

Table 6: Themes in Response to Q1

| Theme | Reference |
|--------------------------------------|---|
| Individual Traits & Cognition | Ahn et al. (2017); Do & Dadvari (2017); Pellegrini & Ciappei (2015); Capolupo et al. (2024); Racat et al. (2024) |
| Leadership & Team Dynamics | Friedman et al. (2016); Kock & Gemünden (2021); Akulava & Guerrero (2023); Motley et al. (2023) |
| Social Networks & Ecosystem Enablers | Masiello & Izzo (2019); Grande et al. (2023); Amoozad Mahdiraji et al. (2022); Lerro et al. (2024) |
| Strategic Orientation & Innovation | Mondal et al. (2023); Basu & Bhola (2022); Xiao et al. (2023); Exposito & Sanchis-Llopis (2020) |
| Finance & Resource Decisions | Chun-Yueh (2022); Narayanan & Lévesque (2019); Sinyard et al. (2020); Xiao (2020); Petty et al. (2023) |
| Contextual & Institutional Factors | Sahoo & Panda (2019); Petrou et al. (2020); Sipper & Batra (2022); Rodríguez-Aceves et al. (2024); Baloch et al. (2022) |

Individual Traits & Cognition cluster papers that set individual traits—attitude, perspicacity, bias, or decision-logic models—as main drivers (e.g., Ahn et al. demonstrate CEO patience and education are important; Capolupo et al. how cognitive bias influences SME choices).

Leadership & Team Dynamics examine how leadership type, team cohesion, and ambidexterity are responsible for collective decision excellence (e.g., Friedman et al. transformational CEOs; Motley et al. on team demographics in change).

Social Networks & Ecosystem Enablers are empirical instances wherein trust, network structure, or ecosystem-level intellectual-capital enablers inform opportunity assessment and resource access (e.g., Masiello & Izzo on network-embedded internationalization).

Strategic Orientation & Innovation encompasses work on entrepreneurial, green or digital orientations as primary internal determinants of strategic choice (e.g., Mondal et al. on tech infrastructure in green entrepreneurship).

Finance & Resource Decisions include equity-financing structures, crowdfunding trust, VC heuristics, and capital-allocation rules (e.g., Chun-Yueh on fuzzy-AHP for FinTech startups; Sinyard et al. on PE heuristics).

Contextual & Institutional Factors collect studies that look at more ambient environmental, regulative or organisational contexts—university sponsorship, procedural rationality, rule of law, cultural norms—which influence decision outputs (e.g., Petrou et al. on politicization hindering international expansion).

Table 7: Themes in Response to Q2

| Theme | Reference |
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| Adaptive Leadership & Team Integration | Friedman et al. (2016); Motley et al. (2023); Petty et al. (2023) |
| Cognitive Flexibility & Heuristics | Sinyard et al. (2020); Manesh et al. (2022); Puglisi et al. (2022); Racat et al. (2024) |
| Technology & AI-Assisted Decision-Making | Shepherd & Majchrzak (2022); Bonci et al. (2018); Secundo et al. (2024); Wu et al. (2024) |
| Process Models & Decision Frameworks | Chun-Yueh (2022); Amoozad Mahdiraji et al. (2022); Nikiforou (2023) |
| Evolutionary & Simulation Approaches | Zhao et al. (2020); Zhou et al. (2022); Neckebrouck & Zellweger (2024) |
| Learning from Failure & Reflexivity | Pellegrini & Ciappei (2015); Scuotto et al. (2024); Rodríguez-Aceves et al. (2024) |

Adaptive Leadership & Team Integration demonstrate how teams and leaders mutually embed processes and information—transformational CEOs build rich decision rituals that maximize responsiveness in unclear contexts (e.g., Friedman et al.).

Cognitive Flexibility & Heuristics demonstrate how entrepreneurs employ mental shortcuts, alternate between intuition vs. reasoning, and leverage offloading processes to cope with uncertain terrain (e.g., Manesh et al. on the intuition–rationality "dance").

Technology & AI-Assisted Decision-Making encompasses studies on applying artificial intelligence, machine learning, and web sites as decision support, facilitating real-time insight and uncertainty-driven risk mitigation (e.g., Bonci et al. on AI platforms for reusing cultural heritage).

Process Models & Decision Frameworks encompasses multi-criteria, fuzzy-AHP, ISM/MICMAC, and Delphi models that rigorously specify decision steps and criteria in general for uncertain settings (e.g., Amoozad Mahdiraji et al. on obstacles to agrifood FDI).

Evolutionary & Simulation Strategies utilize agent-based simulation models, evolutionary games, and computational modeling to model decision outcomes in conditions of uncertainty and to inform policy or strategic advice (e.g., Zhao et al. on next-generation entrepreneurs' innovation dynamics).

Learning from Failure & Reflexivity draws on research that conceptualizes failure or reflective standstill as a site for learning—entrepreneurs recreate decisions following failure, moving towards less centralized or more learning-oriented processes (e.g., Scuotto et al. on failure-as-opportunity orientations).

4. Discussion and Conclusions

Over the past decade, research on the decision-making of successful entrepreneurs has exploded, revealing a rich fabric of individual, social, strategic, and situational forces that influence choice and action. Behind this literature is an appreciation that entrepreneurial decision-making neither is, nor must be, an entirely rational calculation nor an entirely intuitive bound, but rather a dynamic interaction of both. Individual characteristics like cognitive flexibility, paying attention, and moral orientations repeatedly appear as necessary ingredients, yet their impact is exercised with the leadership style, team commitment, and wider social and institutional setting. Meanwhile, the greater complexity of analytical instruments—from fuzzy-logic patterns to agent-based models and decision systems powered by AI—has moved to offload and leverage human judgment, prompting entrepreneurs to seek out novel hybrid solutions for choice under uncertainty.

Plain is that successful entrepreneurs adopt a dual-process approach: They combine rapid, heuristic judgments to deal with messy, data-scarce circumstances and deliberative, model-based reasoning to use when greater analysis is feasible. That *pas de deux* of intuition and analysis enables them to avoid informational overload while at the same time fact-based decision-making. But most recent empirical research uses cross-sectional questionnaires or experimental surrogates, really leaving real decision streams unsensed. Longitudinal field research—some accounts detail how entrepreneurs alternate between effectual and causal logics on the order of months or years—suggest that decision style itself changes as ventures grow in scale, assets vary, and stakeholders multiply. Decision traces must be followed in place in future studies, using decision-log analytics or dairying techniques in attempts to reproduce the temporal dynamics of choice under uncertainty.

Second, entrepreneurial decision making is always collective. Even when the limelight shines on the single founder, his or her decision resonates throughout leadership teams, advisory boards, funding networks, and regulatory agencies. Transformational leadership, team behavior integration, and network trust mechanisms all amplify or dampen the founder's original instincts. Most research formally isolates the entrepreneurial decision as a singular

event, without exploring how social and organizational architectures co-construct outcomes. Mixed-method case studies bring to light the rich choreography of crowdfunding committees or decision committees, though these are the exception. Conjoining social-network analysis and cognitive-process tracing would capture more accurately how ideas emerge, come to be sanctioned socially, and eventually translate into strategic action.

In tandem with personality and social systems is the inevitability of the fact that context counts. Green entrepreneurship innovation, digital innovation, or take-up of open innovation does not happen in thin air; resources, institutional logics, policy regimes, as well as even cultural narratives impact it. Studies on agrifood investment hurdles or rule-of-law effects say that entrepreneurs do need to drive a changing matrix of permits, norms, and power, alternately flipping in and out different heuristics of decision. But most theoretical models postulate a stable decision context or reduced to a few control variables. A less self-evident theorization of context—as an unstable, multi-level construct of economic cycles, regulatory turmoils, and social expectations—would enable scholars to forecast which decision habits are resilient in which milieus. The digital turn of entrepreneurship research has added a new actor to the triad of decision: the AI-and-analytics "partner." Philosophical theses hail machine learning's ability to reveal embedded structures and to predict emergent dangers, and early empirical pilots show how advisory algorithms can shape portfolio selection or market monitoring in real time. But scant research estimates relative performance of AI-augmented teams vs. human-only teams within actual ventures. Neither do we have a complete understanding of the cognitive and ethical consequences of outsourcing judgment to black-box algorithms. Ethical AI embedding will necessitate cross-disciplinarity – coming together of management researchers with computer experts and ethicists – to develop open, stable decision supports that augment rather than replace human judgment.

Notwithstanding this virtually omnipresent interest in uncertainty, empirical studies of failure moments as decision laboratories are astonishingly in short supply. Few reports cast failure as a time for reflexive learning and for resetting risk thresholds, but these are mostly anecdotal or theoretical. A more systematic analysis—presumably based on big data mining of pivot activity, or ethnographic descriptions of "post-mortem" startup teams—could turn failure from stigma into goldmine of knowledge. This kind of research would allow us to not only see how entrepreneurs bounce back from failure, but how they build robust decisional styles that foresee and absorb failure into the natural course of innovation.

Taken as a whole, the literature presents a rich, if somewhat piecemeal, picture of entrepreneurial decision making. We know a lot about trait-based motivators, strategic orientations, network effects, and even technology affordances—but rather less about how these elements dynamically interact with one another over time and across settings. To close this gap, future research will need to adopt methodological pluralism and longitudinal depth: uniting real-time choice logs, multi-actor social data, rich qualitative narratives, and experimental manipulations of AI-enhanced choice scenarios. It is only by mapping the complete decision journey—from recognition to evaluation, to execution and reflective learning—that we might hope to reveal the true architecture of entrepreneurial thought and action. For educators, this two-part approach is both promise and warning. Training programs in analytical discipline or gut-feel in isolation will be useless. Rather, entrepreneurship education needs to develop "meta-cognitive agility": knowing when to employ which decision style, developing the proper social and technological scaffolding, and remapping strategies when things change. Policymakers need also to grasp that uncertain market environments require adaptive regulatory environments—ones that allow innovation without inducing paralyzing inflexibility. In short, entrepreneurial choice scholarship stands at an intellectual crossroads. The speed of digital technologies, the uncertainty of global markets, and the urgency of sustainability obligations demand a richer, more dynamic science of choice. By

applying a systematic matrimony of trait, team, network, context, and technology lenses—and by being able to navigate and be willing to map choices from concept through post-mortem—scholarship of the new generation can produce actionable knowledge that entrepreneurs now so desperately require.

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