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Extending Behavioral Finance To Startup Decision-Making: A Conceptual Model Of Bias-Driven Entrepreneurial Decisions

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Abstract:
This paper extends behavioral finance by developing an integrated and process-oriented framework explaining how cognitive and emotional biases shape entrepreneurial strategic decision-making under conditions of uncertainty, with particular relevance to crisis-affected startup environments such as Lebanon. While behavioral finance has traditionally focused on investor behavior and financial market anomalies, its application to entrepreneurial contexts remains theoretically underdeveloped, particularly in explaining how biases influence strategic action rather than discrete financial choices.
Addressing this gap, the paper reconceptualizes behavioral biases as structured drivers of decision-making that operate through a set of interrelated mediating mechanisms. Specifically, it proposes that cognitive and emotional biases influence entrepreneurial decisions, understood through risk-taking, resource allocation, and opportunity evaluation, both directly and indirectly through perceived risk, emotional stimulation, and entrepreneurial resilience, which jointly shape how uncertainty is interpreted, how decision modes are activated, and how strategic responses evolve over time. By articulating these mechanisms within a unified framework, the study develops a process-based explanation of how biases are translated into entrepreneurial strategic action under structural uncertainty.
The paper further advances the literature by conceptualizing biases as an interacting cognitive–emotional system and by introducing a dynamic dimension through entrepreneurial resilience, thereby capturing the adaptive and evolving nature of entrepreneurial decision-making. In doing so, it repositions behavioral finance as a broader theoretical framework for understanding strategic action in complex and uncertain environments, while providing a foundation for future empirical research in behavioral entrepreneurship and strategic decision-making.
Key Word: *Behavioral finance; Entrepreneurial decision-making; Startups; Cognitive and emotional biases; Uncertainty; Conceptual model.*

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I. Introduction

Behavioral finance has fundamentally reshaped the analysis of economic decision-making by challenging the classical assumption that individuals process information objectively, evaluate alternatives consistently, and act in ways that maximize utility (Becker, 1976; Smith, 1776/2007). Against the rationalist premises of conventional economic theory, behavioral finance has shown that decision-making is systematically influenced by cognitive and emotional biases that distort judgment, alter risk assessment, and generate recurrent departures from normative models of choice (Barberis, 2018; Thaler, 2015). Through foundational contributions such as prospect theory and the heuristics-and-biases tradition, the field has established that economic behavior under uncertainty cannot be adequately understood without accounting for bounded rationality, reference dependence, and asymmetrical responses to gains and losses (Kahneman & Tversky, 1979; Tversky & Kahneman, 1974).

Yet despite its analytical sophistication, behavioral finance remains predominantly confined to the study of investors, financial markets, and asset-related choices. Most of its core explanatory models were developed to account for portfolio decisions, valuation anomalies, trading behavior, and reactions to market information (Barberis, 2018; Thaler, 2015). Even when behavioral biases are examined in unstable or emerging contexts, the dominant unit of analysis remains the investor rather than the entrepreneur (Aasri & Benayad, 2021; Massiki et al., 2023; Tiecoura, 2021). This concentration has generated important insights, but it has also narrowed the theoretical scope of the field. Behavioral finance has become highly effective at explaining deviations in financial choice, while remaining less developed as a framework for understanding strategic action under uncertainty.

This limitation becomes particularly problematic when decision-making is examined in startup contexts. Unlike investors, startup founders and cofounders do not merely choose among predefined alternatives. They interpret weak signals, construct opportunities, commit scarce resources, and act under severe informational constraints, temporal pressure, and strategic ambiguity. Their decisions are therefore not limited to selection under measurable risk; they involve judgment under structural uncertainty, where the problem itself is often ill-defined and the consequences of action unfold over time. Under such conditions, particularly in crisis-affected entrepreneurial ecosystems such as Lebanon, reliance on heuristics, subjective interpretation, and affect-laden judgment is likely to intensify, making behavioral finance highly relevant but insufficiently mobilized in its current form (Gentile & Mothe, 2022; Galavotti et al., 2021; Zhang & Cueto, 2017).

The problem is not only that entrepreneurship has been underexplored within behavioral finance. The deeper issue is that the existing literature remains theoretically fragmented in ways that prevent cumulative explanation. On the one hand, behavioral finance research often studies biases in isolation, examining overconfidence, anchoring, loss aversion, or mental accounting as separate explanatory variables without adequately theorizing their interaction or combined effect on complex decision processes. On the other hand, entrepreneurship research frequently addresses entrepreneurial judgment, opportunity recognition, and decision-making under uncertainty without embedding these processes within a systematic behavioral finance framework (Baron, 2008; Hmieleski & Baron, 2009). As a result, two literatures that should be analytically connected remain only partially integrated.

This inconsistency reflects a deeper theoretical fragmentation that has not been explicitly addressed in prior research. Behavioral finance and entrepreneurship studies rely on partially overlapping assumptions regarding human cognition, yet they diverge in their interpretation of non-rational behavior. In behavioral finance, biases are conceptualized as distortions that lead to systematic inefficiencies and suboptimal choices, particularly in contexts where objective probabilities and outcomes can, at least in principle, be defined. In contrast, entrepreneurship research operates in environments where uncertainty is not only high but often irreducible, and where decision-making involves the active construction of opportunities rather than the evaluation of known alternatives. Under such conditions, cognitive shortcuts, intuition, and affective responses may function as necessary mechanisms for action rather than as sources of error.

The absence of a framework capable of reconciling these perspectives limits theoretical integration across the two domains. More specifically, existing studies do not adequately explain how the same cognitive and emotional biases can simultaneously generate distortions and enable strategic action, depending on the context in which they operate. This gap is particularly critical in startup environments, where decision-making processes are iterative, path-dependent, and embedded in rapidly evolving conditions. Without a coherent conceptualization, the literature remains divided between models that overemphasize irrationality and those that implicitly normalize bias as entrepreneurial capability, without clarifying the conditions under which each interpretation holds. Addressing this gap requires moving beyond isolated analyses of biases toward a more integrated and process-oriented understanding of how cognitive and emotional mechanisms jointly shape entrepreneurial decision-making under uncertainty.

Existing behavioral finance models are analytically structured to explain deviations in choice among predefined financial alternatives, where probabilities, outcomes, and decision sets are at least partially specified. This limits their explanatory power in entrepreneurial contexts, where decision-making involves constructing and enacting strategic action under structural uncertainty. While entrepreneurship research addresses decision-making under uncertainty, it does not fully explain how interacting cognitive and emotional biases are translated into strategic action through identifiable mechanisms. As a result, current literature lacks a coherent framework explaining how biases shape entrepreneurial decision-making beyond isolated or direct effects, despite increasing evidence that bias-driven decisions operate through perception-based mechanisms and growing calls for more integrative approaches in behavioral and entrepreneurial research (Bagozzi et al., 2022; Shefrin, 2019; Shepherd et al., 2021).

This fragmentation is theoretically consequential. First, it sustains an overly narrow view of behavioral finance as a theory of anomalies in investor behavior rather than a broader explanatory framework for strategic decision-making in uncertain environments. Second, it encourages a reductionist treatment of bias, in which single distortions are linked to single outcomes, thereby obscuring the possibility that entrepreneurial decisions are shaped by interacting cognitive and emotional forces. Third, it leaves underdeveloped the mechanisms through which biases are translated into entrepreneurial action. Existing research often assumes a direct relationship between bias and decision, but gives insufficient attention to the intermediate processes through which uncertainty is interpreted, emotional intensity is activated, and strategic responses are adjusted over time (Loewenstein et al., 2001; Baron & Franklin, 2016; Mallah Boustani & Hajj, 2023). In consequence, the literature explains that biases matter, but is less precise about how, through what mechanisms, and in what processual form they shape startup strategic decision-making.

This paper contributes to the literature by developing a process-based behavioral framework that explains entrepreneurial strategic decision-making as the outcome of interacting cognitive and emotional biases operating through three transformation mechanisms: perceived risk, emotional stimulation, and entrepreneurial resilience. Rather than treating behavioral finance as a framework confined to investor behavior and financial market anomalies, the paper repositions it as a broader conceptual framework for entrepreneurial decision-making, capable of explaining how decision-makers construct, interpret, and enact choices in environments where alternatives are not predefined but must be actively generated. This shift is particularly important in entrepreneurial contexts, where uncertainty is not simply a lack of information but a structural condition that requires ongoing interpretation and judgment.

Building on this perspective, the paper develops a process-oriented explanation of behavioral influence that moves beyond the dominant direct-effect logic in the literature. Instead of assuming that biases translate mechanically into decisions, it specifies how this relationship unfolds through a set of interrelated mediating mechanisms, namely perceived risk, emotional stimulation, and entrepreneurial resilience. These mechanisms operate at different levels of the decision process: perceived risk shapes how uncertainty is cognitively represented, emotional stimulation regulates the mode and intensity of decision-making, and resilience influences how decisions are adjusted, sustained, or revised over time. By articulating these mechanisms within a unified framework, the paper provides a more precise account of how biases are translated into strategic action.

In addition, the paper reconceptualizes behavioral biases as elements of an integrated cognitive–emotional architecture rather than as isolated distortions. This perspective reflects the reality of entrepreneurial decision-making, where multiple biases interact simultaneously and influence different dimensions of strategic behavior. Cognitive biases structure the interpretation of information and the evaluation of alternatives, while emotional biases shape the orientation, intensity, and persistence of action. Their combined effect produces a dynamic and context-dependent pattern of decision-making that cannot be adequately captured through fragmented or variable-based approaches. By integrating these dimensions, the paper contributes to a more coherent and theoretically robust understanding of how behavioral processes shape strategic decisions in startups.

The contribution of the paper lies in specifying how interacting cognitive and emotional biases are translated into entrepreneurial strategic action through distinct transformation mechanisms, thereby extending behavioral finance from a model of choice under risk to a process-based framework of strategic decision-making under structural uncertainty.

The remainder of the paper is organized as follows. The next section develops the theoretical foundations of behavioral bias in startup decision-making. The paper then presents a critical review of the literature on cognitive biases, emotional biases, and mediating mechanisms in entrepreneurial contexts. This is followed by the development of the conceptual framework and propositions. The final section discusses the theoretical contributions of the model, outlines its implications for future research, and clarifies how it extends the boundaries of behavioral finance.

II. Theoretical Foundations Of Behavioral Bias In Startup Decision-Making

The extension of behavioral finance to entrepreneurial decision-making requires moving beyond descriptive accounts of bias and toward an integrative framework that explains how biases translate into strategic action. While traditional economic theories assume rational, utility-maximizing agents (Becker, 1976; Smith, 1776/2007), behavioral finance demonstrates that decision-making is systematically shaped by cognitive and emotional distortions (Barberis, 2018; Thaler, 2015). However, despite its analytical power, behavioral finance remains predominantly anchored in investor behavior, leaving a theoretical gap in explaining how these biases operate in the context of entrepreneurial strategic decision-making.

This gap is not merely contextual but conceptual. Existing behavioral finance models primarily explain choice under risk, whereas entrepreneurial decision-making involves the creation, evaluation, and transformation of opportunities under radical uncertainty. As a result, extending behavioral finance to startups requires reinterpreting its foundational theories in light of strategic, forward-looking decisions rather than portfolio selection or asset allocation.

Within this perspective, prospect theory provides a necessary but insufficient foundation. Its central mechanisms, reference dependence, loss aversion, and asymmetric value functions, offer a robust explanation of how individuals evaluate gains and losses (Kahneman & Tversky, 1979). These mechanisms are directly relevant to entrepreneurial decision-making, particularly in contexts where survival thresholds, prior investments, or expectations serve as reference points. However, prospect theory remains primarily focused on evaluation processes, without fully addressing how such evaluations are transformed into complex strategic decisions involving resource allocation, opportunity recognition, and organizational commitment. This limitation highlights the need to complement prospect theory with additional theoretical lenses.

Bounded rationality addresses this limitation by introducing the cognitive constraints under which decisions are made (Zhang & Cueto, 2017). In contrast to the optimizing logic of traditional models, bounded rationality conceptualizes decision-making as a process of satisficing under informational, temporal, and cognitive limitations. In startup contexts, these constraints are not peripheral but structural, as entrepreneurs operate with incomplete data, shifting environments, and high time pressure. Consequently, bounded rationality does not simply explain the presence of bias but justifies its systematic role as an inherent component of strategic decision-making, rather than a deviation from it.

The heuristics and biases framework further refines this argument by identifying the mechanisms through which bounded rationality materializes in practice (Tversky & Kahneman, 1974). Heuristics such as anchoring, representativeness, and availability enable rapid decision-making but introduce predictable distortions in judgment. In entrepreneurial contexts, these mechanisms are amplified by the absence of reliable benchmarks and the novelty of situations. However, existing research often treats heuristics as isolated cognitive shortcuts, without integrating them into a broader model of strategic decision-making. This fragmentation limits the explanatory power of behavioral finance in capturing how multiple biases interact and influence complex entrepreneurial choices.

In parallel, emotional biases introduce an additional layer of complexity that is insufficiently integrated into existing frameworks. While prospect theory incorporates loss aversion as a central mechanism, broader emotional influences, such as regret aversion, fear of failure, and status quo bias, extend beyond risk evaluation and directly affect strategic behavior (Loewenstein et al., 2001). These biases influence not only how outcomes are perceived but also when and whether decisions are made, contributing to inertia, excessive caution, or delayed action. In startup environments characterized by high stakes and personal involvement, these emotional mechanisms are not secondary but central to decision dynamics.

To bridge these theoretical limitations, the literature on entrepreneurial cognition offers a contextualized perspective that links behavioral biases to entrepreneurial action. Entrepreneurs are characterized by specific cognitive profiles, including overconfidence, intuition-driven reasoning, and action orientation (Baron, 2008; Hmieleski & Baron, 2009). While these characteristics facilitate opportunity recognition and innovation, they also increase exposure to systematic biases. However, entrepreneurial cognition research often lacks a structured integration with behavioral finance, treating cognitive traits descriptively rather than embedding them within a coherent bias-driven decision framework.

This limitation is not resolved by adjacent streams such as behavioral strategy or entrepreneurial cognition. Recent research shows that while cognitive biases significantly shape entrepreneurial decision-making, existing studies largely examine these effects in isolation and rely on direct relationships rather than mechanism-based explanations (Capolupo et al., 2024; Cristofaro, 2025). At the same time, integrative work in management research emphasizes the need to move beyond fragmented treatments of biases toward frameworks that explicitly model how biases are translated into decisions through underlying processes (Fasolo et al., 2024). As a result, current literature remains limited in explaining the mechanism-driven and multi-stage nature of entrepreneurial strategic decision-making under uncertainty.

Existing theories explain components of the process, evaluation (prospect theory), constraints (bounded rationality), processing (heuristics), and context (entrepreneurial cognition), but fail to articulate their combined effects within a unified framework.

Addressing this gap requires a shift from isolated theoretical explanations to an integrated perspective in which biases are conceptualized as structured drivers of decision-making, operating both directly and indirectly through underlying mechanisms. This study builds on this premise by proposing a conceptual model that links cognitive and emotional biases to entrepreneurial strategic decision-making, mediated by mechanisms such as perceived risk, emotional stimulation, and entrepreneurial resilience. By articulating these relationships, the paper advances behavioral finance from a theory of financial anomalies to a broader framework for understanding strategic decision-making in entrepreneurial contexts.

III. Behavioral Biases And Strategic Decisions In Startups: A Critical Review

Cognitive biases and entrepreneurial strategic decision-making: unresolved tensions and theoretical inconsistencies

The influence of cognitive biases on decision-making is one of the most established findings in behavioral finance. However, when extended to entrepreneurial contexts, this literature reveals significant conceptual inconsistencies. While studies consistently identify overconfidence as a central determinant of decision behavior, its interpretation remains theoretically unstable. In behavioral finance, overconfidence is primarily conceptualized as a source of systematic error leading to excessive risk-taking and inefficient investment decisions (Kommalapati, 2023; Köseoglu et al., 2021). In contrast, entrepreneurship research often reframes overconfidence as a functional attribute that enables opportunity recognition, innovation, and persistence under uncertainty (Gentile & Mothe, 2022; Zhang & Cueto, 2017).

This divergence reflects a deeper theoretical tension: behavioral finance is fundamentally oriented toward identifying deviations from rationality, whereas entrepreneurship research often interprets such deviations as adaptive responses to uncertainty. As a result, the same cognitive bias is simultaneously treated as a distortion and as a capability, without a clear framework reconciling these perspectives. This ambiguity limits the explanatory power of existing models and highlights the need for a more nuanced conceptualization in which biases are understood as context-dependent drivers of decision-making rather than inherently dysfunctional anomalies.

Similar limitations arise in the treatment of anchoring and confirmation bias. Anchoring has been shown to constrain strategic flexibility by anchoring decisions to initial reference points, even when such references become obsolete (Tiecoura, 2021). Confirmation bias reinforces this rigidity by filtering information in a way that supports prior beliefs, thereby reducing strategic adaptability (Kumar & Chaurasia (2024)). However, these biases are typically examined independently, ignoring their likely interaction. In practice, anchoring and confirmation bias may operate as mutually reinforcing mechanisms, generating path dependency and escalating commitment to initial decisions, phenomena that are particularly critical in startup environments characterized by rapid change and high uncertainty.

Mental accounting further exposes the limitations of current approaches. While behavioral finance has demonstrated that individuals categorize financial resources in ways that deviate from rational allocation (Massiki et al., 2023), its application to entrepreneurship remains underdeveloped. Specifically, the literature fails to explain how mental accounting interacts with strategic decision-making processes, such as prioritization of investments or allocation of scarce resources. By isolating this bias at the individual level, existing studies overlook its potential role in shaping broader strategic trajectories.

Collectively, these observations point to a structural limitation in the literature: cognitive biases are predominantly analyzed as isolated phenomena, detached from the strategic complexity of entrepreneurial decision-making. This reductionist approach prevents the development of an integrated understanding of how multiple biases interact and influence decision processes over time.

Emotional biases: from peripheral anomalies to central drivers of strategic behavior

In contrast to cognitive biases, emotional biases remain insufficiently theorized in both behavioral finance and entrepreneurship research. Although prospect theory establishes loss aversion as a central behavioral principle (Kahneman & Tversky, 1979), its application has been largely confined to risk evaluation, neglecting its broader implications for strategic behavior. Empirical evidence indicates that loss aversion influences decision-making across diverse contexts (Tiecoura, 2021; Ghalayini & Alkees, 2021), yet its dynamic role in shaping persistence, adaptation, and exit decisions in entrepreneurial settings remains underexplored.

This limitation reflects a broader tendency in the literature to treat emotional biases as secondary to cognitive processes. However, evidence suggests that emotional factors play a central role in decision-making under uncertainty, particularly in contexts characterized by high stakes and personal involvement (Loewenstein et al., 2001). In entrepreneurial environments, where decisions often carry significant financial and personal consequences, emotional biases are not peripheral distortions but fundamental drivers of behavior.

Regret aversion illustrates this dynamic by introducing a temporal dimension to decision-making. Entrepreneurs may avoid decisions that could lead to future regret, resulting in delayed action or persistence in failing strategies (Ghalayini & Alkees, 2021). Similarly, fear of failure has been shown to influence both entry into entrepreneurship and strategic decision-making within firms (Karamti & Wannes Abd-Mouleh, 2023). These biases do not merely distort evaluation; they shape the timing, direction, and intensity of strategic actions.

The status quo bias further reinforces this perspective by promoting inertia in the face of uncertainty. In startup contexts, where adaptability is critical, this bias can lead to delayed pivots and resistance to change, even when existing strategies are no longer viable. Despite its relevance, the status quo bias remains largely absent from integrated models of entrepreneurial decision-making.

The marginalization of emotional biases reflects a broader limitation in the literature: the failure to conceptualize decision-making as an inherently affective process. By separating cognitive and emotional dimensions, existing research overlooks their interaction and mutual reinforcement, thereby limiting its explanatory capacity.

Table no 1 synthesizes the principal cognitive and emotional biases discussed in the literature and highlights their relevance for entrepreneurial strategic decision-making.

Table no 1: Synthesis of Cognitive and Emotional Biases in Entrepreneurial Strategic Decision-Making.

Bias category	Bias	Concise definition	Likely effect in financial decision literature	Relevance for startup strategic decision-making
Cognitive	Overconfidence	Overestimation of one's knowledge, judgment, or control	Excessive risk-taking, miscalibrated judgments	Overestimation of opportunities, underestimation of constraints
Cognitive	Anchoring	Excessive reliance on initial information or reference points	Biased valuation and insufficient adjustment	Strategic rigidity, persistence in outdated assumptions
Cognitive	Confirmation bias	Tendency to seek or interpret information in ways that confirm prior beliefs	Selective information processing	Reduced adaptability, reinforcement of initial strategic choices
Cognitive	Mental accounting	Tendency to categorize resources into separate mental accounts	Inefficient allocation of financial resources	Distorted resource prioritization and strategic investment choices
Emotional	Loss aversion	Stronger sensitivity to losses than to equivalent gains	Conservative or defensive choices	Excessive caution, reluctance to pivot or exit
Emotional	Regret aversion	Avoidance of choices that may produce future regret	Delay in action, defensive decisions	Delayed strategic action, persistence in weak strategies
Emotional	Fear of failure	Emotional concern about negative outcomes and their implications	Avoidance of uncertain choices	Inhibition of experimentation, hesitation in commitment
Emotional	Status quo bias	Preference for maintaining existing conditions	Inertia in choice behavior	Resistance to strategic change and delayed adaptation

Source: The Authors

The table highlights that cognitive and emotional biases, although conceptually distinct, jointly contribute to shaping entrepreneurial judgment, reinforcing the need for an integrated analytical perspective.

From bias to strategic decision: rethinking causality through mediating mechanisms

This limitation reflects a deeper conceptual issue: direct-effect models implicitly assume that biases operate as immediate determinants of decision outcomes, overlooking the interpretive and transformational processes through which decision-makers construct meaning under uncertainty. Recent research emphasizes that cognitive biases influence decisions primarily by shaping intermediate representations such as perceived risk and affective responses, rather than directly determining observable choices (Pachur & Marinello, 2024; Wood et al., 2023). This perspective supports a mediation-based logic in which biases are translated into strategic action through underlying cognitive and emotional mechanisms.

Most studies adopt a linear model in which biases are expected to directly influence observable outcomes. However, such an approach oversimplifies the decision-making process and fails to account for the internal mechanisms through which biases are activated and translated into action.

Perceived risk constitutes a central mediating mechanism in this process. Perceived risk is not a passive reflection of external conditions but a cognitively constructed representation shaped by prior beliefs, heuristics, and emotional responses. Recent studies show that biases systematically alter how individuals interpret uncertainty by transforming objective conditions into subjective risk perceptions, which in turn drive strategic choices (Holzmeister et al., 2023; Nguyen et al., 2024). This confirms that perceived risk functions as a primary cognitive-affective interface through which biases influence entrepreneurial decision-making. Behavioral research demonstrates that biases significantly shape how individuals interpret uncertainty and evaluate potential outcomes (Loewenstein et al., 2001). In entrepreneurial contexts, perceived risk is not an objective reflection of external conditions but a subjective construct influenced by cognitive and emotional biases. This suggests that biases influence decisions indirectly by altering the perception of risk, rather than directly determining strategic choices.

Emotional stimulation provides a complementary mechanism by linking emotional intensity to decision processes. Emotional stimulation reflects the intensity of emotional arousal associated with decision situations and plays a critical role in determining how information is processed under uncertainty. Recent research demonstrates that emotional arousal systematically shifts decision-making from analytical to intuitive modes, thereby amplifying the influence of cognitive and emotional biases on judgment and action (Lerner et al., 2023; Corgnet et al., 2024). This confirms that emotional stimulation operates as a regulatory mechanism that conditions how biases are translated into strategic decision processes. High levels of emotional arousal can amplify the influence of biases, shifting decision-making from analytical reasoning toward intuitive and reactive modes (Baron & Franklin, 2016). This mechanism is particularly relevant in startup environments, where time pressure and uncertainty increase reliance on intuitive judgment.

Entrepreneurial resilience operates as an adaptive mechanism that shapes how decision-makers process feedback, reinterpret outcomes, and adjust their strategic behavior over time. Recent research shows that resilience influences not only recovery from adverse events but also the cognitive reprocessing of uncertainty and the persistence or revision of strategic choices (Bullough et al., 2023; Corner et al., 2024). This supports its role as a mediating mechanism through which biases are transformed into dynamic strategic responses rather than static decision outcomes. As the capacity to adapt and recover from adversity, resilience influences how entrepreneurs respond to biased judgments over time (Mallah Boustani & Hajj, 2023). Unlike cognitive and emotional biases, which are often treated as stable traits, resilience highlights the possibility of learning, adjustment, and transformation in decision-making processes.

The omission of these mediating mechanisms reflects a deeper theoretical limitation: the persistence of a simplified causal logic in which biases are assumed to translate directly into observable decisions. Such a perspective overlooks the internal processes through which biases are activated, interpreted, and transformed into strategic action. In reality, decision-making under uncertainty unfolds as a multi-stage process in which cognitive and emotional influences are filtered through intermediate mechanisms that shape both the content and the mode of decision-making.

From this perspective, perceived risk, emotional stimulation, and entrepreneurial resilience should not be understood as independent variables, but as interrelated transformation mechanisms that jointly structure how biases influence entrepreneurial decisions. Perceived risk operates as a cognitive-affective interface through which uncertainty is interpreted and evaluated. Emotional stimulation regulates the intensity and orientation of decision-making by shifting the balance between analytical and intuitive processing. Entrepreneurial resilience introduces a temporal dimension, influencing how entrepreneurs adapt, revise, and sustain their decisions in response to feedback and changing conditions.

By integrating these mechanisms into a unified framework, it becomes possible to move beyond linear explanations and toward a process-based understanding of decision formation. This perspective not only enhances theoretical coherence but also provides a more accurate representation of entrepreneurial decision-making as a dynamic and evolving process shaped by the continuous interaction between cognition, emotion, and adaptation.

Table no 2 summarizes the three mediating mechanisms through which behavioral biases are translated into entrepreneurial strategic action.

Table no 2: Mediating Mechanisms Linking Behavioral Biases to Entrepreneurial Strategic Decision-Making

Mediating mechanism	**Conceptual nature**	**Core role in the model**	**What it transforms**	**Expected consequence for strategic decision-making**
Perceived risk	Cognitive-affective interpretive mechanism	Shapes how uncertainty is subjectively represented	Biases into perceived opportunity/threat profiles	Distorted opportunity evaluation and altered resource allocation
Emotional stimulation	Emotional-regulatory mechanism	Influences the intensity and mode of decision-making	Biases into intuitive or reactive processing	Stronger non-analytical responses under uncertainty
Entrepreneurial resilience	Dynamic adaptive mechanism	Shapes adjustment, persistence, and revision over time	Biases into adaptive or path-dependent strategic responses	Evolution of decisions through learning, coping, and feedback

Source: The Authors

This synthesis emphasizes that the influence of biases on strategic decision-making operates both directly and through distinct transformation mechanisms that structure interpretation, activation, and adaptation processes.

Toward a reconceptualization of behavioral finance in entrepreneurial contexts

The preceding analysis reveals that the limitations of the literature are not merely empirical but fundamentally theoretical. Behavioral finance has successfully challenged the assumption of rationality, yet it remains constrained by its original focus on financial markets and investor behavior. As a result, its application to entrepreneurship remains partial and fragmented.

Extending behavioral finance to startup decision-making requires a reconceptualization of its analytical scope. Rather than viewing biases as isolated deviations from rationality, they must be understood as structured and interacting drivers of strategic decision-making. This shift implies moving from a static, bias-centered perspective to a dynamic, process-oriented framework that captures how biases operate within complex decision environments.

Such a framework must integrate three key dimensions: (1) the interaction of cognitive and emotional biases, (2) the role of mediating mechanisms in translating biases into action, and (3) the contextual specificity of entrepreneurial decision-making under uncertainty. By incorporating these elements, behavioral finance can be extended beyond its traditional domain to provide a comprehensive explanation of strategic decision-making in startups.

Building on this perspective, the following section develops a conceptual model that formalizes these relationships and proposes a set of theoretical propositions linking behavioral finance biases to entrepreneurial strategic decisions.

IV. Conceptual Framework And Propositions

Conceptual framework

This study develops a conceptual framework that reconceptualizes behavioral finance within the domain of entrepreneurial strategic decision-making. Rather than treating behavioral biases as isolated deviations from rationality, the model conceptualizes them as structured, multi-dimensional determinants of strategic action under uncertainty.

The framework is built on three core analytical distinctions: behavioral biases are conceptualized as higher-order constructs composed of first-order dimensions, namely cognitive biases and emotional biases, consistent with a hierarchical view of entrepreneurial decision drivers.

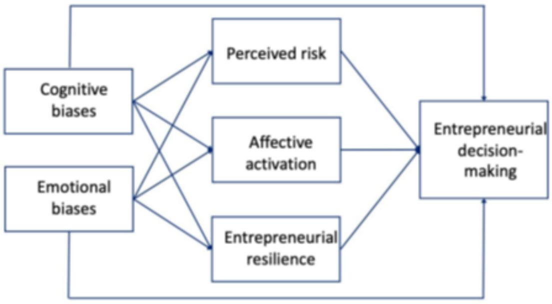
Behavioral biases are modeled as second-order constructs, distinguishing between cognitive biases (overconfidence, anchoring, confirmation bias, mental accounting) and emotional biases (loss aversion, regret aversion, fear of failure, status quo bias). Behavioral biases are conceptualized as higher-order constructs to capture their systemic and cumulative influence on decision-making processes rather than treating individual biases as isolated predictors. This hierarchical structuring allows the model to reflect the reality that multiple biases operate simultaneously and interactively, shaping different dimensions of entrepreneurial strategic decision-making in an integrated manner. This structuring departs from prior research that treats biases independently, and instead captures their systemic and cumulative effects on decision processes (Barberis, 2018; Thaler, 2015).

Entrepreneurial strategic decision-making is conceptualized as a process-based and multidimensional construct, rather than a discrete outcome. It encompasses three interrelated dimensions: opportunity evaluation, resource allocation, and risk-taking, which jointly reflect the core domains of entrepreneurial action under uncertainty (Mensah et al., 2021). This processual perspective addresses a key limitation in the literature, where decision-making is often reduced to isolated choices rather than understood as a dynamic sequence of interdependent judgments.

The framework also introduces mediating mechanisms as central explanatory elements linking biases to strategic outcomes. It adopts a partial mediation logic in which behavioral biases influence entrepreneurial strategic decision-making both directly and indirectly through transformation mechanisms. This partial mediation logic is theoretically justified by the fact that some bias effects operate as direct structuring forces on decision dimensions, while others are transformed through intermediate cognitive and emotional processes. As such, excluding direct effects would underestimate the immediate influence of biases on strategic judgment, whereas excluding mediation would oversimplify the internal processes through which decisions are formed. Specifically, perceived risk, emotional stimulation, and entrepreneurial resilience are conceptualized as distinct but interrelated transformation mechanisms through which biases influence decision-making. This represents a critical theoretical shift from direct-effect models toward a process-oriented understanding of behavioral influence.

Taken together, the framework advances a process-based understanding of entrepreneurial strategic decision-making in which behavioral biases are not treated as isolated distortions, but as structured drivers of action operating through interconnected cognitive and affective mechanisms. Rather than assuming only a direct and immediate effect of biases on decisions, the model conceptualizes decision-making as a multi-stage process in which biases shape how uncertainty is perceived, how alternatives are evaluated, and how strategic actions are initiated and sustained over time. In this perspective, perceived risk represents the cognitive construction of uncertainty, emotional stimulation regulates the intensity and mode of decision-making, and entrepreneurial resilience introduces a temporal dimension by influencing how decision patterns evolve through feedback, learning, and adaptation. This integrated process perspective allows for a more realistic representation of entrepreneurial decision-making as dynamic, iterative, and context-dependent, thereby extending behavioral finance toward a broader theory of strategic action under uncertainty. In this perspective, behavioral biases exert both direct structuring effects on strategic decision-making and indirect effects through mediating mechanisms. Figure no 1 presents the overall conceptual framework proposed in this study.

Graphic no 1: Conceptual Framework of Bias-Driven Entrepreneurial Strategic Decision-Making



Source: The Authors

The figure illustrates the central role of mediating mechanisms in structuring the relationship between behavioral biases and entrepreneurial strategic decision-making, highlighting the coexistence of direct and mediated effects in structuring entrepreneurial strategic decision-making.

Conceptual propositions

Direct structuring effects of behavioral finance biases

Behavioral finance demonstrates that cognitive biases systematically distort judgment and evaluation processes (Barberis, 2018; Thaler, 2015). In entrepreneurial contexts, these distortions are not incidental but structurally embedded due to uncertainty, information scarcity, and time pressure (Galavotti et al., 2021). However, existing research does not explicitly conceptualize how these biases shape the different dimensions of strategic decision-making.

This study advances a more precise conceptualization by linking cognitive biases to specific components of the decision process:

Proposition 1 (P1): Cognitive biases systematically structure entrepreneurial strategic decision-making by distorting (a) opportunity evaluation through biased interpretation of information, (b) resource allocation through heuristic-driven prioritization, and (c) risk-taking through miscalibrated assessment of uncertainty.

Emotional biases, in contrast, do not primarily distort information processing but influence the behavioral orientation of decision-making, including timing, persistence, and responsiveness to uncertainty (Kahneman & Tversky, 1979; Loewenstein et al., 2001). Their effects are therefore expressed through the intensity and direction of strategic action:

Proposition 2 (P2): Emotional biases systematically structure entrepreneurial strategic decision-making by influencing (a) the perception of potential losses and gains, (b) the timing and reversibility of strategic choices, and (c) the persistence or abandonment of strategic actions under uncertainty.

Perceived risk as a cognitive-affective transformation mechanism

Existing literature acknowledges that decision-making is shaped by perceived rather than objective risk (Loewenstein et al., 2001), yet it does not fully conceptualize perceived risk as a mechanism of transformation linking biases to strategic action.

In this framework, perceived risk is defined as a constructed representation of uncertainty, resulting from the interaction of cognitive distortions and emotional responses. It acts as an intermediary layer that translates biases into actionable interpretations of the environment:

- Proposition 3 (P3): Cognitive biases influence entrepreneurial strategic decision-making through perceived risk by systematically altering the interpretation of uncertainty, leading to distorted opportunity evaluation and suboptimal resource allocation.
- Proposition 4 (P4): Emotional biases influence entrepreneurial strategic decision-making through perceived risk by amplifying sensitivity to potential losses, thereby reshaping risk-taking behavior and strategic persistence.

Emotional stimulation as a decision-mode regulator

While behavioral finance recognizes emotional influences, it does not explicitly conceptualize how emotional intensity regulates the mode of decision-making. This study introduces emotional stimulation as a regulatory mechanism that determines whether decision-making follows analytical or intuitive pathways (Baron & Franklin, 2016).

Emotional stimulation is conceptualized as the level of emotional arousal associated with decision situations, which modulates cognitive processing and amplifies bias effects:

- Proposition 5 (P5): Cognitive biases influence entrepreneurial strategic decision-making through emotional stimulation by reinforcing heuristic-based processing and reducing the use of analytical evaluation under high emotional intensity.
- Proposition 6 (P6): Emotional biases influence entrepreneurial strategic decision-making through emotional stimulation by intensifying intuitive decision-making processes and strengthening behavioral responses to uncertainty.

Entrepreneurial resilience as a dynamic adjustment mechanism

A key limitation of behavioral finance lies in its predominantly static view of biases. By contrast, entrepreneurship research highlights the dynamic capacity of individuals to adapt, learn, and recover from adverse outcomes (Mallah Boustani & Hajj, 2023).

This study conceptualizes entrepreneurial resilience as a dynamic mediating mechanism through which cognitive and emotional biases are translated into strategic responses over time. Unlike perceived risk and emotional stimulation, which shape the immediate interpretation and activation of decision processes, resilience influences how entrepreneurs reinterpret outcomes, adapt strategies, and sustain or revise action under uncertainty.

- Proposition 7 (P7): Cognitive biases influence entrepreneurial strategic decision-making through entrepreneurial resilience by shaping the entrepreneur's capacity to reinterpret information, adapt strategic responses, and sustain action under uncertainty.
- Proposition 8 (P8): Emotional biases influence entrepreneurial strategic decision-making through entrepreneurial resilience by affecting the entrepreneur's capacity to regulate emotional responses, cope with uncertainty, and maintain or revise strategic commitments over time.

Table no 3 presents a consolidated overview of the theoretical propositions advanced in the framework. It distinguishes between direct and indirect effects, clarifying the role of mediating mechanisms in the proposed framework.

Table no 3: Summary of Theoretical Propositions

Proposition	Predictor	Effect type / Mediating mechanism	Outcome	Main theoretical logic
P1	Cognitive biases	Direct effect	Entrepreneurial strategic decision-making	Cognitive distortions structure opportunity evaluation, resource allocation, and risk-taking
P2	Emotional biases	Direct effect	Entrepreneurial strategic decision-making	Emotional biases shape timing, persistence, and direction of strategic action
P3	Cognitive biases	Indirect -Perceived risk	Entrepreneurial strategic decision-making	Cognitive distortions alter the interpretation of uncertainty
P4	Emotional biases	Indirect -Perceived risk	Entrepreneurial strategic decision-making	Emotional biases amplify sensitivity to losses and perceived threats
P5	Cognitive biases	Indirect - Emotional stimulation	Entrepreneurial strategic decision-making	Emotional intensity reinforces heuristic processing
P6	Emotional biases	Indirect - Emotional stimulation	Entrepreneurial strategic decision-making	Emotional arousal intensifies intuitive decision modes
P7	Cognitive biases	Indirect - Entrepreneurial resilience	Entrepreneurial strategic decision-making	Cognitive patterns shape adaptive reinterpretation and sustained action
P8	Emotional biases	Indirect - Entrepreneurial resilience	Entrepreneurial strategic decision-making	Emotional dynamics influence coping, revision, and strategic commitment over time

Source: The Authors

Taken together, these propositions articulate a coherent process-based explanation in which behavioral biases influence strategic decision-making through multiple interrelated pathways.

Theoretical contribution and originality

The proposed framework contributes to the literature by advancing a more integrated and process-oriented understanding of how behavioral biases shape entrepreneurial strategic decision-making. Rather than conceptualizing biases as isolated deviations from rationality, the model positions them as structured and interacting drivers of strategic action, embedded within a broader cognitive–emotional architecture. This perspective shifts the analytical focus from identifying individual distortions to understanding how multiple behavioral forces jointly organize the decision-making process.

In addition, the framework enhances explanatory depth by specifying the mechanisms through which behavioral biases are translated into strategic outcomes. By introducing perceived risk, emotional stimulation, and entrepreneurial resilience as interrelated mediating mechanisms, the model moves beyond simplified direct-effect explanations and develops a more nuanced account of decision formation. This process-based perspective clarifies how uncertainty is interpreted, how decision modes are activated, and how strategic responses evolve over time, thereby addressing a key limitation in existing research.

The integration of a temporal dimension through entrepreneurial resilience further extends the analytical scope of behavioral finance. By incorporating adaptation, learning, and adjustment processes, the framework captures the dynamic and iterative nature of entrepreneurial decision-making, which cannot be adequately explained by static models of bias. This contribution not only aligns behavioral finance more closely with entrepreneurship research but also broadens its applicability to contexts characterized by uncertainty and evolving strategic conditions.

More broadly, the framework contributes to bridging behavioral finance and entrepreneurship by offering a unified conceptualization of decision-making in which cognitive distortions, emotional dynamics, interpretive mechanisms, and adaptive capacities are jointly considered. This integrative approach provides a more coherent and theoretically robust foundation for analyzing entrepreneurial action and opens new avenues for empirical investigation. In this sense, the study responds to the need for process-based theorizing in entrepreneurship by moving from variance-style explanations of isolated bias effects toward a mechanism-centered architecture of decision formation.

V. Discussion And Theoretical Contributions

Re-scoping behavioral finance: from financial anomalies to strategic action under uncertainty

The first contribution of this paper is a re-scoping of behavioral finance. Existing behavioral finance literature has been largely confined to explaining anomalies in investor behavior and financial markets (Barberis, 2018; Thaler, 2015). Within this scope, biases are treated as deviations from rational benchmarks, primarily affecting valuation, trading, and portfolio selection. While this orientation has been analytically productive, it has implicitly constrained the field to a specific class of decision problems, those involving choice among predefined financial alternatives.

This paper challenges that boundary by repositioning behavioral finance as a framework capable of explaining strategic action under conditions of structural uncertainty, as exemplified by startup decision-making. In startups, decision-makers do not merely select among existing alternatives; they must define, interpret, and enact opportunities that are inherently ambiguous and evolving. This shift transforms the nature of the decision problem from selection under risk to construction under uncertainty.

The theoretical implication is significant. Behavioral finance is no longer limited to identifying irrational deviations from optimal models but becomes a framework for understanding how economic actors construct meaning, interpret uncertainty, and commit to strategic courses of action in environments where rational optimization is structurally infeasible. This re-scoping expands the domain of behavioral finance from a theory of financial anomalies to a broader conceptual framework for bounded entrepreneurial decision-making.

Importantly, this move does not dilute behavioral finance; it strengthens it. By extending its applicability to entrepreneurial contexts, the paper demonstrates that its core insights, bias, heuristic reasoning, and non-rational judgment, are not confined to markets but are fundamental to economic decision-making more broadly.

Re-structuring bias: from isolated deviations to an integrated cognitive–emotional architecture

The second contribution lies in what can be termed a re-structuring of behavioral bias. The dominant approach in both behavioral finance and entrepreneurship research has been to examine biases as discrete variables, each associated with specific outcomes. This has led to what can be described as a “bias catalogue” logic, where overconfidence, anchoring, loss aversion, and other biases are studied independently.
While analytically convenient, this approach suffers from two major limitations.

First, it fragments the explanatory space, preventing the development of cumulative theory. Second, it fails to reflect the reality of decision-making, where multiple biases interact simultaneously.

This paper departs from that logic by conceptualizing biases as components of a structured cognitive–emotional architecture. Cognitive biases are understood as mechanisms that shape how information is processed and interpreted, while emotional biases shape how decisions are energized, oriented, and sustained over time. These two dimensions are not independent; they are mutually reinforcing.

This reconceptualization introduces an important theoretical shift. Bias is no longer treated as a deviation from rationality at the level of isolated judgments, but as a systemic property of the decision-making process. In this view, entrepreneurial decisions are not occasionally biased; they are structurally shaped by interacting cognitive and emotional forces.

The originality of this contribution lies in its move from a variable-based perspective to an architectural perspective. Instead of asking which bias affects which outcome, the framework asks how different types of biases jointly organize the decision process. This shift enhances theoretical coherence and opens the possibility of more integrated empirical testing.

Re-mechanizing behavioral finance: from direct effects to a process architecture of decision formation

A third and central contribution of the paper is the introduction of a mechanism-based explanation of behavioral influence, which can be described as a re-mechanization of behavioral finance.

Existing literature often assumes a direct causal link between bias and decision. For example, overconfidence leads to excessive risk-taking, or loss aversion leads to conservative choices. While such relationships are empirically observable, they remain theoretically under-specified because they do not explain how biases are translated into action.

This paper addresses this limitation by introducing three mediating mechanisms, perceived risk, emotional stimulation, and entrepreneurial resilience, which together form a process architecture of decision formation.

Perceived risk operates as a cognitive-affective translation mechanism, transforming bias into a subjective representation of uncertainty.

Emotional stimulation operates as a regulatory mechanism, determining the mode of decision-making (analytical vs. intuitive) depending on emotional intensity.

Entrepreneurial resilience operates as a temporal adjustment mechanism, shaping how decisions evolve through feedback, learning, and adaptation.

The introduction of these mechanisms changes the explanatory logic of behavioral finance.

Instead of a linear model in which biases directly determine strategic choices, the framework advances a process-based architecture in which behavioral influences are progressively translated into action through interconnected mechanisms. In this architecture, biases operate both as immediate determinants of decisions and as underlying drivers, but as underlying drivers that shape how uncertainty is constructed, how decision modes are activated, and how strategic responses are adjusted over time.

More specifically, perceived risk functions as a cognitive-affective translation mechanism that converts bias into a subjective representation of uncertainty, thereby influencing how opportunities and threats are evaluated. Emotional stimulation operates as a regulatory mechanism that determines the intensity and mode of decision-making, shifting the balance between analytical reasoning and intuitive judgment depending on emotional arousal. Entrepreneurial resilience introduces a temporal adjustment dimension, shaping how decision-makers reinterpret outcomes, learn from experience, and modify their strategic actions in response to evolving conditions.

This process-based perspective significantly enhances the explanatory power of behavioral finance by making explicit the internal mechanisms through which biases influence strategic behavior. It allows for a more nuanced understanding of decision-making in entrepreneurial contexts, where action is not the result of isolated cognitive distortions, but of an ongoing interaction between perception, emotion, and adaptation.

This is a major theoretical advance. It increases explanatory depth by making visible the internal processes that connect bias to action. It also enhances the analytical usefulness of the model, as it identifies specific points of intervention where decision processes can be influenced or improved.

Re-temporalizing behavioral finance: introducing dynamics, adaptation, and path dependency

A fourth contribution lies in the re-temporalization of behavioral finance. Traditional behavioral finance models are largely static, focusing on how biases influence decisions at a given point in time. This static perspective is appropriate for certain financial contexts but is insufficient for entrepreneurial settings, where decision-making is inherently dynamic, iterative, and path-dependent.

By integrating entrepreneurial resilience into the framework, this paper introduces a temporal dimension that allows for the analysis of how bias effects evolve over time. Resilience captures the capacity of entrepreneurs to reinterpret outcomes, revise strategies, and recover from adverse situations. As such, it transforms the model from a snapshot of decision distortion into a trajectory of decision evolution.

This contribution is particularly important because it challenges the implicit determinism of many behavioral models. If biases are static and pervasive, decision-making appears structurally flawed. By contrast, the introduction of resilience suggests that bias effects can be mitigated, redirected, or transformed through adaptive processes.

This opens a new avenue for behavioral finance: the study of how biased decision-makers learn and adjust over time, rather than merely how they deviate from rational benchmarks. It also aligns behavioral finance more closely with entrepreneurship research, where learning, iteration, and adaptation are central themes.

Bridging and transforming two literatures: toward an integrated conceptual framework of entrepreneurial decision-making

Beyond its individual contributions, the paper also performs an integrative function by bridging behavioral finance and entrepreneurship research. These two fields have evolved largely in parallel, addressing similar phenomena, uncertainty, judgment, non-rational behavior, but with different conceptual tools and assumptions.

Behavioral finance has emphasized deviation, bias, and anomaly. Entrepreneurship research has emphasized action, opportunity, and adaptability. By integrating these perspectives, the present framework avoids the limitations of both: it avoids reducing entrepreneurship to irrationality, as some behavioral interpretations might imply, and it avoids romanticizing entrepreneurial intuition, as some entrepreneurship literature tends to do.

Instead, it proposes a balanced analytical lens in which entrepreneurial decision-making is understood as the outcome of interacting cognitive distortions, emotional dynamics, interpretive mechanisms, and adaptive capacities.

This integration is not merely additive; it is transformative. It suggests that a unified theory of entrepreneurial decision-making must account simultaneously for bias, uncertainty interpretation, emotional regulation, and adaptive response.

Such a theory moves beyond disciplinary boundaries and offers a more comprehensive understanding of strategic action in uncertain environments.

The explanatory power of the proposed framework is likely to vary across boundary conditions. In particular, the intensity and consequences of behavioral biases may depend on the degree of environmental uncertainty, the entrepreneur's prior experience, and the institutional context in which the startup evolves. In highly volatile environments, bias effects may be amplified because reliable benchmarks are scarce and rapid judgment becomes necessary. By contrast, greater entrepreneurial experience may partially attenuate some distortions while reinforcing others through routinized judgment. Similarly, institutional conditions may shape how uncertainty is interpreted and how resilience is enacted. These boundary conditions do not weaken the model, but indicate important contextual contingencies that future empirical research should examine.

VI. Conclusion

The originality of this paper lies in developing an integrated conceptual framework of decision-making through which existing constructs are organized and related. This grammar is characterized by four interconnected moves:

- Re-scoping: extending behavioral finance from financial markets to entrepreneurial strategy,
- Re-structuring: organizing biases into an interacting cognitive–emotional system,
- Re-mechanizing: introducing mediating mechanisms that explain how decisions are formed,
- Re-temporalizing: incorporating dynamics and adaptation through resilience.

Taken together, these moves transform the way behavioral finance can be used to analyze decision-making. The paper does not simply apply existing theory to a new context; it extends its application, making it more general, more process-oriented, and more applicable to complex strategic environments. This level of integration constitutes the core scientific added value of the study.

This paper advances the understanding of entrepreneurial strategic decision-making by developing a process-oriented framework that explains how cognitive and emotional biases shape strategic action under conditions of uncertainty. By moving beyond the traditional focus of behavioral finance on investor behavior and market anomalies, it demonstrates the relevance of behavioral insights for explaining how entrepreneurs interpret uncertainty, construct opportunities, and commit to strategic decisions in complex and evolving environments.

The theoretical contribution of the paper lies in specifying the mechanisms through which behavioral biases are translated into strategic outcomes. By identifying perceived risk, emotional stimulation, and entrepreneurial resilience as interrelated mediating mechanisms, the framework provides a more nuanced and internally coherent explanation of decision formation. This approach shifts the analytical focus from isolated bias effects toward a dynamic process in which cognition, emotion, and adaptation interact to shape entrepreneurial behavior over time.

In addition, the paper contributes to the integration of behavioral finance and entrepreneurship research by offering a unified conceptualization of biases as elements of a broader cognitive–emotional system. This perspective highlights the importance of considering both the interpretive and motivational dimensions of decision-making, as well as the temporal processes through which strategic actions are sustained, revised, or abandoned.

The framework also opens several avenues for future research. Empirical studies can test the proposed relationships and examine the relative influence of different biases and mediating mechanisms across contexts, particularly among founders and cofounders of crisis-affected startups such as those operating in Lebanon. In particular, future work may explore how variations in environmental uncertainty, institutional conditions, or entrepreneurial experience shape the operation of these mechanisms. By providing a structured and theoretically grounded model, this study offers a foundation for advancing research at the intersection of behavioral finance, entrepreneurship, and strategic decision-making.

The framework also lends itself to future empirical operationalization. Cognitive and emotional biases may be modeled as multidimensional constructs measured through established psychometric indicators, while perceived risk, emotional stimulation, and entrepreneurial resilience may be operationalized as distinct mediating variables reflecting interpretive, emotional, and adaptive processes. Entrepreneurial decision-making may in turn be measured through its proposed dimensions of opportunity evaluation, resource allocation, and risk-taking. Age, gender, education level, and sector of activity may also be included as control variables. Given the hierarchical and mediation-based structure of the model, structural equation modeling would constitute an appropriate analytical approach for simultaneously testing direct and indirect effects. In addition, longitudinal designs would be particularly valuable for capturing how resilience and strategic responses evolve over time under changing conditions of uncertainty. Such empirical approaches would allow future research to validate, refine, and extend the process architecture advanced in this study.

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