

Bridging the experience gap: cognitive biases and heuristics in the internationalization of small firms

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Abstract

Purpose – Research on early internationalization in smaller firms has primarily focused on initial market entry, often neglecting responses to adverse post-entry events. This paper addresses the gap between entrepreneurial internationalization and small business survival by examining both initial and post-entry stages through decision-maker cognition.

Design/methodology/approach – This conceptual paper develops a cognition-based decision framework that explains how cognitive biases influence pre- and initial entry decisions, and evolve in response to post-entry negative events. It introduces the “experience gap paradox” – a misalignment between personal experience and required international market experience – as a key driver of biased judgment. The framework links non-contextualized pre-entry experience with post-entry decision-making, offering testable propositions on the dynamic interplay between biases, heuristics, and internationalization decisions.

Findings – This model supports the argument that heuristic decision-making is contingent upon context-specific prior experience, which leaders of small firms typically lack pre-entry, causing them to develop and rely on decision biases.

Originality/value – This article contributes by exploring how cognitive heuristics and biases evolve in decision-making across the pre-entry and post-entry stages of internationalization, with a focus on smaller firms – particularly International New Ventures (INVs). It provides a comprehensive understanding of the “experience gap paradox” and its influence on entrepreneurial internationalization, offering insights relevant to small firms’ adaptive decision-making and survival.

Keywords Early internationalization, Small firms, Decision-maker cognition, Experience gap paradox, Evolution of cognitive biases, Heuristics

Paper type Conceptual paper



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Introduction

Post-entry behavior of International New Ventures (INVs) has emerged as an important area of research in international entrepreneurship (IE) (Johanson and Martín, 2015; Kuivalainen *et al.*, 2012), lying at the intersection of firm entrepreneurial internationalization and long-term firm survival and growth (Gerschewski *et al.*, 2018). Although the literature has focused extensively on the initial market entries of INVs, what happens after this initial stage remains underexplored (Hilmersson and Johanson, 2016; Jin *et al.*, 2018), prompting repeated calls for more research into the post-entry phase (Johanson and Martín, 2015; Kuivalainen *et al.*, 2012). This lack of attention is particularly important because many INVs struggle to sustain performance after their initial entry. Recent research shows that survival and growth rates often decline post-entry, with capability gaps and managerial overstretch weighing heavily on these firms (Khan and Lew, 2018; Rumyantseva and Welch, 2023; Sleuwaegen and Onkelinx, 2014). From a managerial perspective, these vulnerabilities are even more pressing today as small firms operate in volatile environments shaped by supply chain disruptions, geopolitical uncertainty, and digital acceleration (OECD, 2021). Early internationalization therefore represents not only an ambitious growth path but also a fragile one, highlighting the need for closer examination of the mechanisms that shape post-entry decisions and performance.

While there is some understanding of INV behavior post-entry, it comes from a firm-level perspective (e.g. Bunz *et al.*, 2017; Khan and Lew, 2018; Vissak *et al.*, 2019), limiting insight into individual-level reasoning and its evolution during early internationalization [1]. This is an important omission in the literature, as INVs, often led by a single person, internationalize early and rapidly (Hagen and Zucchella, 2014), facing heightened uncertainty (Liesch *et al.*, 2011). Under conditions of uncertainty, the heuristics and biases individuals are known to employ (Kahneman and Tversky, 1979) may be especially influential in early INV decision-making (Niittymies, 2020).

We therefore align with the individual level, cognitive perspective in internationalization (Clark *et al.*, 2022; Maitland and Sammartino, 2015), which acknowledges that decision-makers are prone to biases (Buckley *et al.*, 2007) as they rely on prior experience to make decisions on early internationalization (Jones and Casulli, 2014). We extend this literature by conceptualizing the cognitive evolution of INV leaders as they transition from initial market entry to the post-entry stage, shaping their subsequent internationalization behavior.

The conceptual development we present rests on the premise that heuristics and biases are shaped by prior experiences – experiences that may not align with the complex, context-specific demands of internationalization (Jones and Casulli, 2014; Williams and Grégoire, 2015). This misalignment leads to early-stage cognitive simplifications that mask deeper contradictions – contradictions that often resurface and demand resolution in the post-entry phase. The situation is paradoxical: the less experience an entrepreneur has, the less aware they may be of its limitations in internationalization contexts (Seidl *et al.*, 2021). We refer to this persistent and concealed contradiction as the *experience gap paradox* – a cognitive phenomenon where decision-makers overapply limited experiential knowledge to unfamiliar international contexts, mistakenly believing it to be sufficient. Therefore, we adopt a paradox theory lens (Lewis, 2000; Luhmann, 1991), which conceptualizes paradox as “contradictory yet interrelated elements that seem logical in isolation but absurd and irrational when appearing simultaneously” (Lewis, 2000, p. 760). This perspective is particularly valuable for explaining how individuals psychologically navigate contradictions that emerge in the transition from pre- to post-internationalization- going beyond discrete decision points typically addressed by heuristics and biases research. Though traditionally applied at the organizational level, paradox theory is increasingly used to examine individual-level tensions (Waldman *et al.*, 2019), and this study extends its application to the cognitive mechanisms of INV decision-makers in entrepreneurial internationalization.

Following Jaakkola's (2020) framework for conceptual papers and Lukka and Vinnari's (2014) distinction between domain and method theories, this paper adopts a theory adaptation and model development approach. Our objective is to advance understanding of early internationalization (domain theory) by integrating insights from cognitive biases, heuristics, and paradox theory (method theories). These perspectives help explain anomalies and tensions

in the INV literature, where narrow experience may both enable and mislead internationalization decisions. We develop a staged conceptual model that traces how such mechanisms evolve across pre-entry, entry, and post-entry phases.

This paper makes four key contributions. First, it identifies two opposing sets of biases influencing decision-making before and after entry, showing how pre-entry biases shape post-entry surprises. Second, it introduces the “experience gap paradox”- where limited international experience leads decision-makers to overapply it in uncertain contexts (Seidl *et al.*, 2021). Positive experiences foster over-optimism, while negative ones hinder decisions (Gordeeva *et al.*, 2020; Zaleski, 2006). This study theorizes that experience gap paradox is initially masked by “deparadoxification” – unconscious smoothing over contradictions – driven by “make-happy” biases (i.e. positively charged cognitive biases such as overconfidence and optimism that help reduce anxiety and sustain action under uncertainty) stemming from prior (positive) experiences. Third, it extends paradox theory in internationalization by showing how pre-entry biases evolve into more cautious, adaptive responses during post-entry stages after encountering negative events, thus contextualizing the well-known “psychic distance paradox” (O’Grady and Lane, 1996). Finally, it conceptualizes post-entry cognitive micro-dynamics of INV leaders, explaining how they interpret unexpected events and choose to exit, persist, or re-enter- choices shaped by heuristics like escapism, real options reasoning (ROR), and the affordable loss logic (ALL). In doing so, the paper advances the domain of IE by offering a microfoundational explanation of small-firm internationalization. While prior IE studies have emphasized the drivers of early entry (Sapienza *et al.*, 2006), less attention has been given to the cognitive processes that persist after entry and shape subsequent persistence, retrenchment, or re-entry behavior (Surdu *et al.*, 2019; Hunt *et al.*, 2021). By theorizing the evolution of biases and heuristics across pre- and post-entry stages, we extend IE debates beyond general cognition to explain how paradoxical tensions are navigated in founder-led firms with limited experience.

Literature review

Managerial cognition and prior experience

Individual differences in experience, learning, and decision-making are central to managerial cognition research, driving heterogeneity in firm-level strategic choices and performance (Powell *et al.*, 2011). Prior experiences – both positive and negative – serve as cognitive reference points in international decision-making (Buckley *et al.*, 2016). Positive experiences reinforce confidence (Osborn and Jackson, 1988; Sitkin and Weingart, 1995), leading to greater risk-taking and a preference for continued international expansion (Casillas *et al.*, 2009). Successful experiences can also create a transfer effect, where managers apply lessons from one context to another (Zollo and Reuer, 2010). This tendency can lead to the assumption that previous success guarantees future success, potentially causing managers to overlook shifts in context or emerging risks (Zahra *et al.*, 2005). Conversely, negative experiences heighten perceived risks and can lead to loss aversion and status quo bias (Liesch *et al.*, 2011; Samuelson and Zeckhauser, 1988). This cautious approach may limit growth opportunities and create inertia, especially in resource-constrained small firms (Acedo and Jones, 2007). While prior research has examined the cognitive impact of positive and negative experiences in isolation, we still lack an integrative model that captures how decision-makers respond cognitively to sequences of such experiences under the uncertainty that characterizes INVs.

Cognitive heuristics, biases, and paradox theory

Heuristics are mental shortcuts that simplify decision-making under uncertainty. In entrepreneurship, heuristics are defined as “the thumb-rules guiding the management decisions involved in the start-up and management of a new venture” (Manimala, 1992,

p. 477). Cognitive biases, by contrast, are “dispositions or inclinations in human thinking and reasoning that often do not comply with the tenets of logic, probability reasoning, and plausibility” (Korteling and Toet, 2022, p. 610).

When making decisions under uncertainty, individuals often lack complete information and turn to heuristics. This idea is central to cognitive bias theory, which has evolved through two major schools. The *heuristics-and-biases approach* (Kahneman and Tversky, 1979) argues that while heuristics aid quick decisions, they also introduce systematic biases that distort judgment. Entrepreneurs, for instance, may become overconfident, assume stability (status quo bias; Faroque et al., 2025b), or rely too heavily on recent experiences (availability bias), all of which can lead to flawed decisions. This view highlights how cognitive shortcuts often deviate from rationality. In contrast, the *fast-and-frugal heuristics approach* (Gigerenzer and Goldstein, 1999) sees heuristics as adaptive tools that enable effective decisions when time and information are limited. Entrepreneurs frequently face such conditions and must rely on experience-based shortcuts. This view underscores that heuristics, while risky, can be practical tools that help explain risk-taking, delays, or strategic shifts under internationalization uncertainty.

Research on biases in entrepreneurship has become well-established (Grégoire et al., 2011; Zhang and Cueto, 2017), offering insights into venture creation, entrepreneurial behavior, business success, and distinctions between entrepreneurs and non-entrepreneurs (e.g. Koellinger et al., 2007; Gudmundsson and Lechner, 2013; Parker, 2006; Rogoff et al., 2004). Entrepreneurial biases are typically categorized into three types (Baron, 2007; Zhang and Cueto, 2017), each shaping decisions differently. The first type is *make-happy biases*, which arise from goals, desires, or beliefs. They support positive emotions while reducing anxiety, foster overconfidence and overoptimism and encourage entrepreneurial activity (Sharot, 2011). For INV decision-makers, who face high uncertainty and possess limited experience, such biases sustain confidence and justify risk-taking, enabling early international commitment. Without them, hesitation may delay or even block entry. These biases are especially salient for INVs navigating resource constraints and volatile markets. In contrast, *sketchy-attribute biases* occur when individuals focus on specific attributes while ignoring more relevant ones, often influenced by emotionally salient events (Bless et al., 2004). This leads to cognitive distortions such as availability and hindsight bias. Finally, *psycho-physics biases* involve flawed quantitative judgments, such as overweighting low-probability events (Kahneman and Tversky, 1984) or framing the same information differently depending on presentation (Levin et al., 2002).

In our theorizing, we draw on this typology of biases while extending beyond their current conceptualization as isolated, instance-specific decision-point aids. We propose that biases evolve over time through experience and exposure to failure. Our intent is to account for the persistent internal tensions that entrepreneurs face as contexts shift. To address this, we integrate *paradox theory* as a complementary lens. Paradox theory explains how organizations and individuals experience and navigate contradictory yet interdependent tensions – such as risk versus caution or commitment versus flexibility – without fully resolving them (Smith and Lewis, 2011). These tensions are not merely theoretical abstractions but represent practical cognitive dilemmas that influence behavior over time. Integrating paradox theory with cognitive bias research offers deeper insight into how entrepreneurs navigate uncertainty- not only through single-decision heuristics but also by dynamically reframing or rebalancing internal contradictions across multiple decision points during internationalization. For instance, in the pre-entry stage, entrepreneurs may use heuristics to simplify uncertainty and commit boldly. After entry, however, failure or misalignment may trigger what we term *deparadoxification* and *adaptive paradoxification* – processes through which leaders reevaluate, mask, or surface contradictions to recalibrate their thinking (Jarzabkowski et al., 2013).

To consolidate insights and clarify our theoretical positioning, Table 1 synthesizes the main literature streams, outlining their assumptions, gaps, and how paradox theory and cognitive bias perspectives address them. This makes explicit the sequence from domain gap identification to method theory integration and the development of our constructs: namely the

Table 1. Literature streams, core assumptions, gaps, method theory integration, and this paper’s contributions

Literature stream	Core assumptions	Limitations/gaps	Method theory integration	How this paper addresses gaps
<i>Experiential knowledge</i> (Johanson and Vahlne, 1977; Lafuente <i>et al.</i> , 2021; Faroque <i>et al.</i> , 2023)	<ul style="list-style-type: none"> • Experiential knowledge drives further commitment to internationalization • Experience accumulation reduces uncertainty, always viewed as an asset 	<ul style="list-style-type: none"> • Assumes experiential knowledge is only an asset, never a liability • Limited attention to post-entry failures and setbacks 	<i>Paradox theory</i> and <i>cognitive bias theory</i> together reframe experiential knowledge as both asset and liability, showing how it can also foster biases in IE	Explains post-entry de-escalation of commitment by introducing experience as a source of bias as well as knowledge
<i>Internationalization experience</i> (Sapienza <i>et al.</i> , 2006; Autio <i>et al.</i> , 2000; Kuivalainen <i>et al.</i> , 2012)	<ul style="list-style-type: none"> • Founder’s previous experience confers vision, agility, and networks • Previous experience enables early and rapid internationalization 	<ul style="list-style-type: none"> • Assumes prior experience is only an asset, never a liability • Neglects cognitive misalignment between prior experience and current context 	<i>Paradox theory</i> reframes prior experience as both enabling and misleading; allows for considering contradictions stemming from limited or irrelevant experience being overapplied in IE	Defines the <i>experience gap paradox</i> , where narrow or irrelevant founder experience paradoxically creates confidence; introduces <i>deparadoxification</i> to explain how biases (e.g., overconfidence) temporarily mask contradictions
<i>Managerial cognition and biases</i> (Kahneman and Tversky, 1979; Baron, 2007; Maitland and Sammartino, 2015; Clark <i>et al.</i> , 2022; Niittymies, 2020)	<ul style="list-style-type: none"> • Decision-making under uncertainty is prone to systematic biases • Biases may be adaptive (fast-and-frugal) or distortive (heuristics-and-biases) 	<ul style="list-style-type: none"> • Role of biases in IE underdeveloped • Biases often treated as static and context-free • Limited focus on bias evolution over internationalization 	<i>Cognitive bias theory</i> explains how biases emerge at different IE stages; <i>paradox theory</i> explains how contradictory tensions persist and resurface in IE	Introduces <i>bias evolution</i> – showing how founders’ biases shift across stages; explains recalibration via <i>deparadoxification</i> and <i>adaptive paradoxification</i>

(continued)

Table 1. Continued

Literature stream	Core assumptions	Limitations/gaps	Method theory integration	How this paper addresses gaps
<i>Paradox theory in management</i> (Lewis, 2000; Smith and Lewis, 2011; Waldman <i>et al.</i> , 2019)	<ul style="list-style-type: none"> • Contradictory yet interrelated tensions persist • Paradoxes can be generative rather than paralyzing 	<ul style="list-style-type: none"> • Typically applied at organizational level • Limited micro-level application • Rarely linked to entrepreneurial cognition in internationalization 	<i>Paradox theory</i> explains enduring contradictions while cognitive bias/heuristics specify the micro-level decision processes through which such tensions are managed in IE	Extends paradox theory to <i>individual-level cognition</i> and <i>decision-making</i> in internationalization; explains how paradoxes are masked (<i>deparadoxification</i>) and later surfaced (<i>adaptive paradoxification</i>)
<i>Post-entry decision-making</i> (Bingham and Eisenhardt, 2011; Surdu <i>et al.</i> , 2019; Hunt <i>et al.</i> , 2021)	<ul style="list-style-type: none"> • Heuristics guide strategic choices such as persistence, exit, and re-entry • Experiential learning refines decision rules 	<ul style="list-style-type: none"> • Focuses on firm-level strategies • Underexplores micro-level cognitive processes • Lacks consideration of bias evolution 	<i>Cognitive bias/heuristic research</i> explains how decision rules emerge in IE, while <i>paradox theory</i> shows how evolving tensions shape heuristic use. Heuristics are therefore not only decision tools but also outcomes of evolving biases and paradox management	Illustrates <i>heuristic evolution</i> : heuristics shift from <i>reactive</i> (escapism, ROR, ALL) to <i>strategic</i> use as biases evolve

experience gap paradox, deparadoxification, adaptive paradoxification, and heuristic evolution. These dynamics are particularly amplified in INVs, which typically operate with founder-centric governance structures that centralize decision-making (Autio *et al.*, 2000), compressed internationalization timelines that demand rapid commitments, and thin resource slack that limits corrective buffers (Prashantham and Young, 2011). Together, these features heighten the persistence of cognitive tensions: biases formed at early stages are more likely to carry over across subsequent decision points, and paradoxical contradictions are less easily mitigated by organizational routines or slack resources. This makes INVs a particularly salient context for theorizing how deparadoxification and adaptive paradoxification unfold over time.

Design logic and theoretical framing

Following Lukka and Vinnari's (2014) domain–method distinction, our domain theory is early internationalization of small firms. The domain gap lies in the prevailing assumption that experience is uniformly an asset to internationalization, reducing uncertainty and fostering commitment (Johanson and Vahlne, 1977; Lafuente *et al.*, 2021). This overlooks how narrow or contextually irrelevant experience can mislead decision-makers, creating misplaced confidence or false analogies (Jones and Casulli, 2014; Zahra *et al.*, 2005). To address this gap, we conceptualize the *experience gap paradox*- a misalignment between prior experience and international market demands- as a key mechanism shaping entrepreneurial cognition. To theorize this paradox, and in line with Lukka and Vinnari (2014), we adopt two method theories: *paradox theory*, which explains persistent tensions between competing demands (Lewis, 2000; Smith and Lewis, 2011), and *cognitive bias/heuristics* research, which explains bounded decision-making under uncertainty (Gigerenzer and Goldstein, 1999; Kahneman and Tversky, 1979). By aligning paradox theory's emphasis on contradictions unfolding over time with cognitive bias research's focus on heuristic decision-making at different points in time, we theorize mechanisms that neither perspective could explain alone. Consistent with Jaakkola (2020), we frame the paper as a *theory adaptation and model development* effort that explicitly states the roles of domain and method theories and justifies our theory choices and combinations analogously to how empirical studies justify data selection.

As summarized in Table 1, our theory choices reflect three interlinked steps that operationalize this decision logic: (1) *selection criteria*- why paradox theory and cognitive bias/heuristics are more suitable than structural perspectives such as transaction cost or institutional theory; (2) *integration logic*- how paradox theory's focus on enduring contradictions complements cognitive bias research's focus on micro-level decision processes; and (3) *development process*- how juxtaposing these with the domain gap led us to theorize the constructs of *deparadoxification* and *adaptive paradoxification*.

Guided by this integration, we structure our framework across three temporal stages: pre-entry (t_0), initial entry (t_1), and post-entry (t_2) (Jones and Coviello, 2005). This staging enables us to trace mechanisms over time: how *deparadoxification* initially masks contradictions through positively charged biases (overconfidence, optimism, psychic proximity); how *adaptive paradoxification* later surfaces contradictions via cautionary biases (diffidence, cautious optimism, psychic distance); and how these evolving biases recalibrate heuristics, shifting them from *reactive* (escapism, real options reasoning, affordable loss) to *strategic* use. Building on this design logic, we now develop our conceptual framework step by step, specifying propositions that capture the causal mechanisms and boundary conditions of bias evolution in small firm internationalization.

Experience-driven evolution of INV leaders' cognition and entry decisions across pre- and post-entry stages

Initial entry and deparadoxification

Limited individual-level experience can substitute for a firm's lack of international experience, as imported routines from individuals' prior international roles help reduce the time and cost of

new venture internationalization (Sapienza *et al.*, 2006). INV decision makers' international experience (either work or personal) facilitates the early detection of opportunities in foreign markets (Nemkova, 2017) and when mediated by entrepreneurial exposure, it fosters international entrepreneurial intentions (Pidduck *et al.*, 2023). While these studies emphasize the role of prior experience in opportunity identification and the intention to exploit such opportunities, they largely overlook how decision-makers interpret and act upon this experience once the internationalization process is actually underway. In particular, there is limited discussion on how decision-makers' cognitive constraints shape their perceptions of experience applicability, and what happens when their experience-based assumptions do not align with context requirements. In INVs, decision-makers may overestimate the applicability of their prior experience to the specific challenges of early internationalization, leading to a cognitive disconnect between their assumed competencies and actual capabilities. This phenomenon, identified and defined in this paper as the "*experience gap paradox*", occurs when decision-makers believe their past international exposure sufficiently prepares them for foreign market entry, despite significant contextual differences that often limit the transferability of experiential knowledge (Eriksson *et al.*, 1997; Zahra *et al.*, 2005). However, this paradox often remains concealed, as cognitive biases such as overoptimism, overconfidence, and psychic proximity distort assessments and reinforce misplaced confidence. Lacking definitive resolution, these tensions are managed through "*deparadoxification*"- a psychological mechanism that smooths over contradictions, enabling action under uncertainty while masking the limits of prior experience (Knudsen, 2006; Luhmann, 1991).

In the context of INVs, deparadoxification plays a critical role in shaping decision-makers' cognitive biases. It acts as a psychological mechanism that reduces uncertainty-induced discomfort and enables action despite incomplete information. As part of this process, decision-makers may construct narrative fallacies- simplified or distorted accounts of past experiences- to preserve a sense of competence and readiness for internationalization (Taleb, 2007). These self-reinforcing narratives can obscure gaps in entrepreneurs' knowledge and capability, limiting their ability to grasp the complexities of foreign market entry. Thus, deparadoxification is not merely a side effect but a central psychological mechanism that allows decision-makers to reconcile the contradiction between their limited experience and the confidence to act. Without it, hesitation and doubt may arise. But by mentally smoothing over this tension, deparadoxification facilitates the formation of biases like *overconfidence*, *overoptimism*, and *psychic proximity*- biases that propel early internationalization despite real experiential gaps.

Conceptually, this study argues that one significant outcome of deparadoxification is the development of *psychic proximity bias*. Due to prior exposure (e.g. through personal travel, business experiences, or perceived cultural similarities), decision-makers may develop a notion that foreign markets are less complex and more manageable than they actually are. Decision-makers may not consciously acknowledge the "experience gap paradox" because their cognitive process is biased toward deparadoxification. This is the "generative power" of paradox (Lewis, 2000), enabling action rather than paralyzing it, as paradoxes paralyze observers but not actors (Czarniawska, 2005). This tendency is conceptualized in this paper as pre-entry "*psychic proximity bias*" – defined as "*the decision maker's inclination to perceive less psychic distance between two countries than actually exists, influenced by prior exposure to these or similarly perceived cultures, which essentially motivates early internationalization of the venture.*" This bias is similar to the motivational bias described by Montibeller and Winterfeldt (2015) and the "make-happy bias" outlined by Baron (2007).

We theorize that at initial international entry, INV entrepreneurs with some (though limited) prior experience exhibit *overconfidence bias*. While novices typically possess modest self-perceptions, even a small amount of exposure can lead individuals to inflate their confidence (Sanchez and Dunning, 2018) and belief in their competence, convincing themselves that they "know much if not all there is to know" (Sanchez and Dunning, 2018, p. 25). This cognitive

simplification serves to avoid facing the contradiction between their limited experience and their decision to internationalize early (deparadoxification). Overconfidence bias leads decision-makers to overestimate their abilities while underestimating risks, competitive threats, or the difficulty of a task (Johnson and Fowler, 2011). As a result, overconfident INV decision-makers restrict their information search (Cooper et al., 1995), commit resources prematurely without thoroughly evaluating additional information (Mahajan, 1992), and may fail to recognize the limits of their own knowledge (Zacharakis and Shepherd, 2001) when pursuing early internationalization.

We further theorize that *(over)optimism bias*, closely linked to overconfidence, reinforces decision-makers' belief in the likely success of early entry. It leads them to overestimate positive outcomes and underestimate negative ones (Sharot, 2011), effectively concealing potential post-entry negative events. Optimistic INV decision-makers often place excessive weight on personal experience while undervaluing publicly available information (Bernardo and Welch, 2001), causing them to discount critical risk factors such as competitor strength, failure rates, and market uncertainty (Bar-Hillel, 1983; Kahneman and Lovallo, 1993). Although over half of new ventures fail, 95% of entrepreneurs believe their businesses will succeed (Cooper et al., 1988). This bias pushes optimistic decision-makers toward riskier, exploratory ventures, including early internationalization where uncertainty and failure risks are high (Bernardo and Welch, 2001). Encouraged by their (over)optimism and limited international experience, INV decision-makers approach early internationalization with enthusiasm and persistence (Carver and Scheier, 2003; see also Nummela et al., 2004, on global mindset), often feeling exhilarated as they launch their first venture (Cooper et al., 1988) or enter foreign markets- even prematurely.

Based on the preceding discussion, the following propositions are put forward:

- P1a. INV decision-makers' overconfidence bias, arising from limited relevant international experience, leads them to restrict information search and underestimate risks, driving early market entry.
- P1b. INV decision-makers' (over)optimism bias, arising from limited relevant international experience, leads them to overestimate opportunities and discount potential setbacks, driving early market entry.
- P1c. INV decision-makers' psychic proximity bias, arising from limited relevant international experience, leads them to perceive foreign markets as more culturally similar and therefore less risky than they actually are, driving early market entry.

Post-entry negative events and cognitive adaptation

Reactive heuristic use in response to negative events. Given the hypothesized overconfidence, overoptimism, and psychic proximity bias of INV decision-makers at the initial entry stage and the risk-taking behavior that follows, they are more likely to encounter a growing number of negative events and unforeseen challenges upon entry (Petersen et al., 2008). These events may arise from factors both internal and external to the INVs [2] and persist beyond entry (Hennart and Slangen, 2015), exposing them to shock effects (Pedersen and Petersen, 2004). In response, INV decision-makers may adopt heuristics such as *escapism*, *real options reasoning* (ROR), and the *affordable loss logic* (ALL) to cope under pressure. While escapism may offer emotional relief through withdrawal or pause, ROR enables decision-makers to justify continued presence in the market despite short-term losses, based on the perceived option value of future gains (Trigeorgis and Reuer, 2017), and ALL provides a logic for limiting downside risks by committing only what can be affordably lost (Dew et al., 2009). Prior research shows that individuals under time constraints and uncertainty tend to rely on intuitive, experience-based heuristics (Bingham and Eisenhardt, 2011; Kahneman, 2011). For instance, Bingham et al. (2007) found that entrepreneurs build and apply heuristics reactively

in response to trial-and-error learning in unfamiliar environments. Similarly, [Saravathy \(2001\)](#) shows that ALL becomes particularly salient under unpredictable conditions. Among these, escapism can be both adaptive and maladaptive: while it may enable strategic withdrawal or temporary downscaling, it can also reflect emotional avoidance or irrational exit ([Baron, 2004](#); [Hayward et al., 2006](#)). These heuristics serve as reactive strategies for managing post-entry challenges, allowing INV leaders to absorb shocks, stabilize operations, and adapt quickly in uncertain market environments. Based on this, we propose:

- P2a. Post-entry negative events trigger a reactive application of heuristics (escapism, ROR, and ALL) by INV decision-makers, driving short-term adaptation.

Adaptive paradoxification and emergence of opposing biases

Following the immediate and reactive application of heuristics addressed in Proposition P2a, INV decision-makers undergo a critical transformation as they continuously engage with the market. As the situation changes and the perceptions of acceptable outcomes evolve ([Tversky and Simonson, 1993](#)), decision-makers become sensitive to deteriorating conditions ([Schneider et al., 2016](#)). This heightened awareness triggers an introspective process known as “*adaptive paradoxification*”, where decision-makers confront the previously concealed *experience gap paradox* that originated in the pre-entry stage. They realize that they were overoptimistic about the venture success, and underestimated significant experience disparities, leading to a reassessment of their cognitive biases. During this process, decision-makers develop new cognitive frameworks that enable them to recognize, accept and adapt to this paradox ([Miron-Spektor and Paletz, 2017](#)). In response, they may develop a different and opposing set of biases, namely *diffidence*, *cautious optimism*, and *psychic distance* to deal with the renewed recognition of the *experience gap paradox*.

Partial failures might cause decision-makers to lose faith in their capabilities if they attribute these failures to personal shortcomings ([Bandura, 2000](#)), leading to diffidence toward the entire internationalization process. Conversely, they may not question their abilities if they attribute the issues encountered to external market conditions rather than their own lack of experience ([Kelley and Michela, 1980](#)). In such cases, their diffidence may be directed at the specific country or market rather than the overall internationalization effort. This tendency is termed in this paper as *diffidence bias*.

When encountering negative events in the post-entry stage, overoptimistic decision-makers realize that their estimation of positive outcomes was flawed and unrealistic. Consequently, the (over)optimism bias from the pre-entry and initial entry stages diminishes in strength, tempering their optimism ([Fraser and Greene, 2006](#)) into what becomes *cautious optimism*. Cautious optimism refers to a confident outlook coupled with preparedness for potential setbacks, describing individuals who pursue ambitious goals while remaining ready for unforeseen difficulties ([Wallston, 1994](#)).

INV decision-makers who perceived low psychic distance and high psychic proximity during the pre-entry stage may, following negative post-entry events, become susceptible to *psychic distance bias* during adaptive paradoxification. In the context of INVs, we define “*psychic distance bias*” as the tendency of decision-makers to reverse their earlier belief in high psychic proximity and begin perceiving greater distance- even after having acquired some experience in the country. Therefore, their perceived distance once again fails to align with the actual distance ([Sinha et al., 2015](#)). Based on this, we propose:

- P2b. Post-entry negative events make INV decision-makers confront the experience gap paradox through adaptive paradoxification, leading to opposing biases (diffidence, cautious optimism, and psychic distance bias).

Strategic evolution of heuristics through bias recalibration

Over time, the reliance on heuristics in response to post-entry challenges becomes more deliberate and strategically grounded. Heuristics that are initially used reactively—such as escapism, ROR, and ALL—evolve as decision-makers undergo *adaptive paradoxification*. This process involves recognizing the limitations of their earlier assumptions and recalibrating their cognitive biases in light of lived experiences. For example, overconfidence may give way to diffidence, while overoptimism softens into cautious optimism, and psychic proximity bias reverses into psychic distance bias. These emerging biases shape how INV leaders refine their use of heuristics: instead of using them reactively, they begin applying them strategically to guide decisions such as market re-entry, cautious expansion, or even switching internationalization logics. Thus, the evolving cognitive lens mediates how heuristics are deployed under uncertainty. Based on this, we propose:

- P2c. Over time, this direct application of heuristics in post-entry negative events is mediated by the evolution of cognitive biases, driving a transition from reactive to strategic heuristic use.

To elaborate the causal content of our theorized mechanisms, [Table 2](#) details the micro-mechanisms of deparadoxification and adaptive paradoxification, including their triggers, temporal profiles, cognitive operations, outputs, and boundary conditions. The table illustrates how deparadoxification functions at the pre- and initial entry stages by masking contradictions through positively charged biases, and how adaptive paradoxification emerges at the post-entry stage when setbacks surface the previously concealed paradox and prompt cognitive recalibration. This elaboration complements the formal propositions by clarifying the causal micro-mechanisms underlying deparadoxification and adaptive paradoxification.

Heuristics-driven post-entry decisions

We know from literature that in the face of negative events, decision makers have a choice to persist or withdraw from a chosen course of action ([Brockner, 1992](#)). This study explores three decision outcomes in response to post-entry negative events, influenced by INV decision makers' reactions—(1) country exit, (2) stay with cautious expansion, and (3) re-entry to a previously exited market (which is not uncommon among internationally operating firms, cf. [Surdu et al., 2019](#)). Given differences in how individuals process setbacks, not all INV leaders will exhibit the same decision patterns after negative events. Pre-entry decisions in INVs are influenced by cognitive biases due to an “experience gap paradox”, while post-entry decisions are shaped more by the nature and impact of lived experience after market entry. Heuristic-based decision-making requires prior experience—something that is typically absent in pre-entry INVs ([Niittymies, 2020](#)) but begins to develop following entry. After initial entry, negative events (like negative entry outcomes or realization of one's own decision-making limitations) can trigger three possible decision paths for INV decision-makers based on specific heuristics: escapism, ROR and ALL.

Outcomes of escapism heuristic. Negative events affect cognitive processes more than positive events ([Baumeister et al., 2001](#)). Those may lead to escapist or avoidant behaviors as a means of self-protection ([Barlow and Durand, 2005](#)). Understanding escapism, both positive and negative, is crucial for comprehending the paths INV decision makers might take following post-entry shocks ([Astakhova et al., 2022](#)).

Positive escapism involves taking short breaks from reality, offering healthy relief ([Labrecque et al., 2011](#)). It can be seen as an ‘emotion-focused strategy for seeking temporary relief’ from overwhelming stress ([Kuo et al., 2016](#), p. 501). INV entrepreneurs might temporarily exit the market when overwhelmed, keeping the option for future re-entry. They may attribute failure to external factors, thinking, “Let's return when conditions improve,” or to internal factors, deciding, “Let's come back when we're better prepared” ([Niittymies, 2020](#)).

Table 2. Micro-mechanisms, triggers, and boundary conditions of deparadoxification and adaptive paradoxification

Mechanism	Triggering cues	Temporal profile	Cognitive operations (anchor citations)	Outputs	Boundary conditions (anchor citations)
<i>Deparadoxification</i> (t_0 - t_1 , pre-/initial entry)	High uncertainty + limited/misaligned experience; need to sustain confidence and act despite knowledge gaps	Emerges before and during initial entry	Reducing uncertainty-induced discomfort (Luhmann, 1991); reliance on narrative fallacies for coherence (Taleb, 2007); selective attention and availability heuristics (Kahneman and Tversky, 1979); framing markets as psychically proximate (Clark <i>et al.</i> , 2018)	Positively charged “make-happy” biases: overconfidence, (over) optimism, psychic proximity	Stronger when similarity cues (e.g. cultural familiarity, prior travel, perceived closeness) are salient and external challenge is weak (Johnson and Fowler, 2011); weaker when advisors or environmental turbulence highlights contradictions (Knudsen, 2006)
<i>Adaptive paradoxification</i> (t_2 , post-entry)	Post-entry negative events (e.g. losses, partner conflict, unmet expectations) that disconfirm prior assumptions (Pedersen and Petersen, 2004)	Arises after setbacks when the concealed paradox resurfaces	Attribution of failure as internal vs. external (Bandura, 2000); frame revision (Tversky and Simonson, 1993); paradoxical reframing (Miron-Spektor and Paletz, 2017); recalibration into cautious optimism (Fraser and Greene, 2006; Wallston, 1994), diffidence (Bandura, 2000), and psychic distance (Sinha <i>et al.</i> , 2015)	Bias recalibration; heuristics evolve from reactive (escapism, ROR, ALL) to more strategic application	Stronger when failures are recognized as stemming from own assumptions, feedback is timely (Schneider <i>et al.</i> , 2016), and resources are scarce; weaker when failures are attributed solely to external factors, when resource availability allows inertia, or network ties buffer critical feedback (Jarzabkowski <i>et al.</i> , 2013)

Negative escapism involves avoiding unpleasant situations by creating the illusion that harsh reality doesn't exist, leading to a perception that the illusory world is paramount (Astakhova *et al.*, 2022). INV decision-makers might see no potential in the initial market or abandon internationalization altogether, focusing instead on home markets or other industries. Therefore, the following propositions are made:

- P3a. INV decision-makers using positive escapism and blaming external factors are likely to exit temporarily and reenter the international market when conditions improve.
- P3b. INV decision-makers using positive escapism and blaming internal factors are likely to exit the international market and return after gaining needed capabilities.
- P3c. INV decision-makers using negative escapism are likely to abandon the international market and focus on home markets or other industries.

Outcomes of ROR and ALL. ROR suggests that even without precise valuation, decision makers use real options logic as a heuristic to consider the potential future value of an investment (Trigeorgis and Reuer, 2017). Entrepreneurs may stay in the focal market despite current losses, hoping to unlock future opportunities. While ROR explains why decision makers stay, it doesn't address how small, resource-constrained INVs simultaneously pursue growth and manage risks. This could be explained by the inclusion of the ALL, which can be utilized as a complement to ROR (Hunt *et al.*, 2021) in providing self-regulating safeguards when INVs operate in an unsuccessful market. The use of ALL allows these INVs to limit the downside risks through controlled "slow and cautious" expansion into international markets.

ALL is a heuristic (Hunt and Song, 2015) where decision makers estimate risks and determine acceptable losses to pursue a course of action (Dew *et al.*, 2009). Entrepreneurs, influenced by post-entry negative experiences and experiential learning, are guided by the ALL heuristic, leading them to reduce commitment to the initial market and explore future opportunities cautiously. ROR and ALL together move beyond the "wait and see" approach (Hunt *et al.*, 2021), allowing INVs to tolerate higher levels of affordable loss and pursue new opportunities from initial entry. This approach ensures that the source of future gains in internationalization stems from initial entry and continued engagement.

Therefore, the following propositions are proposed:

- P3d. INV decision-makers using ROR are likely to stay in the market despite losses, anticipating future opportunities.
- P3e. INV decision-makers using ALL will expand cautiously, minimizing risks while exploring opportunities.
- P3f. Combining ROR and ALL allows INV decision-makers to tolerate higher levels of affordable loss and actively seek new opportunities beyond a "wait and see" approach.

Conceptual framework

This paper's conceptual model (Figure 1) is structured around three internationalization stages: pre-entry, initial entry, and post-entry - to trace how INV leaders' cognition evolves over time (Jones and Coviello, 2005; Keupp and Gassmann, 2009). Central to this model is the experience gap paradox: INV leaders often overestimate the relevance of prior exposure (e.g. travel, education, or work abroad) to early internationalization (Clark *et al.*, 2018; Niittymies, 2020). To reconcile this mismatch and sustain confidence, they engage in deparadoxification (Luhmann, 1991), constructing simplified narratives that mask contradictions, leading to emotionally reinforcing pre-entry biases- overconfidence, (over)optimism, and psychic proximity (P1a-c). These biases persist into initial entry, where they remain untested until

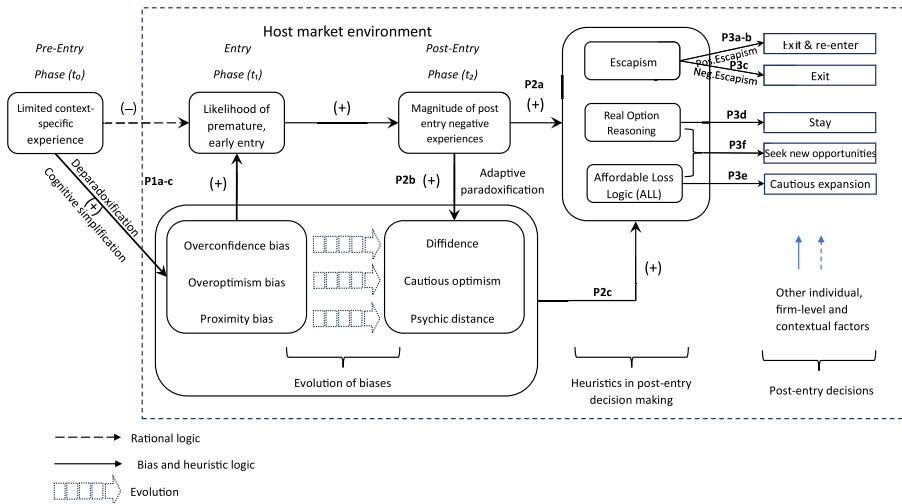


Figure 1. Conceptual framework: Experience-driven evolution of INV leaders' cognition and entry decisions across pre- and post-entry stages

post-entry setbacks (e.g. partner conflict, market mismatch: Pedersen and Petersen, 2004) trigger reactive heuristics- escapism, ROR, or ALL (P2a). As the concealed paradox resurfaces, INV leaders undergo adaptive paradoxification, revising assumptions and developing cautionary biases- diffidence, cautious optimism, and psychic distance (P2b). Over time, these revised biases mediate the application of heuristics, shifting their use from reactive responses to more strategic tools in post-entry decision-making (P2c). These evolving biases shape heuristic-based decisions: exit and re-entry (P3a-c), persistence (P3d), cautious expansion (P3e), or a combined ROR + ALL strategy (P3f).

Figure 1 contrasts rational versus bias- and heuristics-driven logic: under rational logic (-), early entry would be avoided; through deparadoxification, INV leaders shift to bias-driven logic (+), enabling early internationalization despite the experience gap paradox. Dynamism is captured in the figure through three temporal stages: pre-entry (t_0), where decision-makers operate within the home market environment; initial entry (t_1), where they begin to engage with the host market; and post-entry (t_2), where host market realities exert greater influence. While not central to our propositions, empirical testing of the model should control for host market factors like market turbulence and other individual, firm, and environmental variables influencing post-entry decisions (Hennart and Slangen, 2015).

Discussion

This study theorizes how limited and misaligned managerial experience shapes cognitive reasoning across internationalization stages. While existing literature views international experience as beneficial (Surdu et al., 2021; Nemkova, 2017), we argue that some level of managerial experience- when not contextually relevant- can foster overconfidence and flawed assumptions, impairing preparedness for internationalization. Paradoxically, such partial experience may be more harmful than none, as it creates a false sense of readiness. This notion resonates with the learning advantages of newness (Autio et al., 2000), where managers with irrelevant experience may carry more assumptions than those starting with a clean slate.

In addition, while existing frameworks link heuristics to firm-level strategies like growth or loss minimization (e.g. Bingham and Eisenhardt, 2011; Hunt et al., 2021; Kalinic et al., 2014), our model highlights how INV leaders rely on cognitive biases to preserve their sense of

agency, self-efficacy and competence in uncertain environments (Bandura and Wessels, 1997). Early-stage biases- overconfidence, overoptimism, and psychic proximity- mask the “experience gap paradox” and support initial commitment despite limited experience. These biases are not purely strategic but reflect self-perception and core beliefs (Judge *et al.*, 1999; Cristofaro and Giardino, 2000). Post-entry setbacks expose this paradox, triggering a shift toward opposing biases such as diffidence, cautious optimism, and psychic distance- a cognitive adjustment we term adaptive paradoxification. As outlined in Propositions 2a–3f, these evolving biases shape how INV leaders apply heuristics like escapism, ROR, and ALL- not as rigid formulas but as adaptive tools informed by learning, experience, and changing perceptions of control. Ultimately, decisions to exit, persist, or re-enter are shaped not just by strategy or market data, but by how entrepreneurs internalize and reinterpret past experiences. Some exit with intent to return, others persist using tools like ROR or ALL, and some re-enter after building capabilities or awaiting change. Underlying each path is a shifting narrative of competence, optimism, and psychological safety.

This dynamic perspective shifts attention to the micro-level cognitive adjustments shaping internationalization decisions, showing how INV leaders reinterpret experience to sustain momentum. It invites further empirical work on how biases and heuristics evolve over time, using longitudinal studies, scenario-based experiments, or neurocognitive tools to illuminate internal decision processes.

Contributions and managerial implications

This study offers four contributions to the literature on IE, cognitive bias, and paradox theory. First, it develops a theoretical model of cognitive evolution in INV decision-making by identifying two opposing sets of cognitive biases- overconfidence, overoptimism, and psychic proximity (pre-entry), and diffidence, cautious optimism, and heightened psychic distance (post-entry). Rather than viewing post-entry surprises as purely environmental, the model shows how pre-entry biases shaped by the “experience gap paradox” unconsciously guide early choices, and how recognizing flawed assumptions leads to bias recalibration. This dynamic process- moving from motivational to corrective biases- provides a testable foundation for studying how cognitive adjustments enable INV decision-makers to manage post-entry uncertainty. As Clark *et al.* (2018, p. 442) observe, “the influence of cognition in internationalization decision-making is both important and complex.” Our framework lays the groundwork for future research into cognitive recalibration mechanisms that enable SMEs to navigate uncertainty across internationalization phases.

Second, the study extends paradox theory to early internationalization by conceptualizing the *experience gap paradox*- where decision-makers overestimate the relevance of limited international experience. Unlike prior work focused on strategic tensions, we apply paradox theory to individual cognition, showing how paradoxes are masked through *deparadoxification*, which produces “make-happy” biases- comforting but misleading beliefs like overconfidence and psychic proximity that justify early action under uncertainty. This complements literature linking bias to experience (Zhang and Cueto, 2017), but we argue such biases also arise as functional responses to ignorance. As Kahneman (2011, p. 201) notes, “Paradoxically, it is easier to construct a coherent story when you know little . . . Our confirming conviction . . . rests on . . . our almost unlimited ability to ignore our ignorance.” This reframes early biases as psychological tools that preserve agency, not flaws. Moreover, by applying paradox theory at the individual level, this study aligns with recent calls to explore micro-level paradoxical tensions in managerial decision-making (Waldman *et al.*, 2019), thus extending paradox theory into entrepreneurial contexts where such tensions remain underexplored. By showing how the experience gap paradox and deparadoxification unfold, this study positions bias as a paradox-masking mechanism that sustains self-efficacy and coherence, while also addressing unresolved links between experience and bias (Zhang and Cueto, 2017). It lays a foundation for exploring how these biases later recalibrate.

Third, the study applies paradox theory to the post-entry stage, where earlier decision biases become the perils amid unexpected setbacks. These realizations trigger an adaptive paradox- the surfacing of the previously concealed experience gap paradox- and lead to the development of opposing, cautionary biases. This reframing advances the longitudinal paradox view (Papachroni *et al.*, 2015), showing how motivational and corrective bias pairs interact over time. It also offers a cognitive reinterpretation of the psychic distance paradox (O’Grady and Lane, 1996), revealing how decision-makers revise proximity perceptions based on experience rather than initial assumptions. In this way, paradox theory enables a longitudinal view of how INV leaders adapt heuristics and self-perceptions across stages, moving beyond cross-sectional approaches to trace the dynamic interplay between paradox poles (Papachroni *et al.*, 2015).

Fourth, this study shows how heuristics in internationalization evolve through post-entry learning and shifting biases. While early-stage decisions may be driven by overconfidence or optimism, real-world challenges prompt INV leaders to recalibrate using heuristics like escapism, ROR, and ALL, which adapt with experience and self-assessment. This supports the view that context-specific experience (Niittymies, 2020) and cognitive plasticity are essential for refining initial biases into usable rules of thumb. In doing so, the study advances an individual-level cognitive perspective in IB (Guercini and Milanese, 2020), addressing the gap in how heuristics evolve over time (Bingham and Eisenhardt, 2011; Maitland and Sammartino, 2015). Whereas prior work often treats heuristics as static uncertainty-reduction tools (e.g. Eriksson and Kadefors, 2017; DeMiguel *et al.*, 2009), we show they also enable strategic responses to failure- including exit, re-entry, or domestic refocus- by supporting self-regulation, learning, and strategic redirection.

Managerial implications. The model and propositions offer practical value by helping INV leaders recognize cognitive biases that shape decisions, especially in early internationalization. Awareness of the “experience gap paradox” (P1a–c) is crucial, as decision-makers may overestimate their context-specific experience. Evaluating levels of confidence, optimism, and psychic proximity is essential before applying experiential shortcuts. When self-assessment proves difficult, seeking input from peers, advisors, or consultants can reduce bias-driven misjudgments. Beyond market entry, these biases also influence post-entry choices- from expansion and adaptation to exit. Periodic reassessment of decision frameworks can prevent suboptimal strategies and should be included in management training. Second, post-entry surprises (P2a–b) can serve as corrective signals, helping decision-makers recognize cognitive mismatches and avoid emotional overreactions or premature exit. Continuous learning- through both relevant and non-relevant international experiences- builds resilience. Tools like reflective debriefing, misstep reviews, and cross-cultural immersion can challenge psychic proximity bias and recalibrate expectations.

Third, as Propositions 2c and 3a–3f suggest, evolving biases shape post-entry heuristics. Heuristics like ROR and ALL should be applied with context-awareness and bounded rationality, not instinct. Decision-makers must also assess escapism tendencies and how failure attribution affects re-entry strategy. Fourth, since biases evolve, regular reassessment- via reviews, scenario planning, and training- helps transform early biases into adaptive learning tools. Finally, recognizing whether exit stems from avoidant bias or affordable loss thinking supports better re-entry timing. Developing such metacognitive awareness allows leaders to approach internationalization as a dynamic process of learning, adaptation, and identity shaping.

Conclusion and suggestions for future research

The study’s conceptual nature, lacking empirical data, presents several limitations. It restricts validation, generalizability, and causality, and leaves constructs unmeasured. Bias evolution and contextual variability remain underexplored, and the propositions may appear subjective, requiring empirical testing. Despite this, the article advances IE literature by proposing

testable propositions grounded in cognitive theory, focusing on bias and heuristics. Given limited research on cognition in IE, future studies should track the evolution of biases and heuristics in INV leaders, and compare these across traditional internationalizers, early internationalizers, and domestic firms.

Cognitive biases are closely linked to emotional states, influencing decisions under uncertainty (Baron, 1998). Future IB research could explore how these emotional states affect decision-making in pre- and post-internationalization stages, leading to heuristics and biases. Investigating different types of biases, such as make-happy, sketchy-attribute, and psychophysics, can reveal their impacts, relationships, and transformations under varying circumstances, including industry and environmental turbulence. Decision-making logics, like effectuation and causation may produce distinct biases (Zhang *et al.*, 2018); for instance, do effectual thinkers show more overconfidence than causal ones?

Strategic orientations such as market and entrepreneurial orientations act as heuristics (Merlo *et al.*, 2008), yet their associated biases are underexplored. Studies should assess what biases these orientations produce, and their effect on internationalization. For instance, market-oriented firms may form context-specific heuristics, while entrepreneurial firms may face unique biases. Finally, although culture and institutions shape cognition (Pan *et al.*, 1995; Puthusserry *et al.*, 2014), IB research has largely overlooked cognitive differences stemming from cultural, ethical, or geographic variation (Niittymies, 2021) which, in our opinion, is a critical gap.

Resource-constrained INVs often lack access to experienced international managers early on, a factor the current model may not fully capture. As these firms evolve, learning shifts from product-centric congenital learning to international market learning (Pellegriano and McNaughton, 2015), warranting research on how this transition shapes cognitive biases. While this study focuses on individual-level cognition, future work should explore how biases and heuristics emerge at organizational and team levels. Longitudinal studies are needed to define and operationalize key constructs like overconfidence and overoptimism, which remain underdeveloped in IB. Existing proxies for CEO overconfidence and overoptimism- such as media exposure and stock option holdings in strategic management (Kunz and Sonnenholzner, 2023; Schumacher *et al.*, 2020), budget-outcome discrepancies in entrepreneurship (Invernizzi *et al.*, 2017), and trait-based assessments in behavioral finance (Cervellati *et al.*, 2022)- offer partial insights but often miss the complexities of entrepreneurial decision-making in uncertain, international contexts.

Future research should move beyond cross-sectional surveys by using methods from cognitive psychology and comparative analysis to empirically examine constructs introduced in this study- such as the experience gap paradox and deparadoxification. For example, the experience gap paradox could be empirically examined using pre- and post-entry surveys or scenario-based tasks that assess perceived versus actual relevance of prior international experience. Additionally, the process of deparadoxification- how individuals mentally smooth contradictions to act- may be explored through longitudinal interviews, think-aloud protocols, or reflective narratives to track evolving reasoning under uncertainty. To investigate causality, experimental designs could test how framing conditions or mismatched experience trigger biases like overconfidence or optimism. Attributional analysis using critical incident techniques, case studies, or founder diaries can help trace how failure interpretation evolves into adaptive heuristics. Additionally, neurocognitive tools such as eye-tracking or EEG could uncover real-time emotional and attentional responses to paradox. Finally, Qualitative Comparative Analysis (QCA) offers a promising approach to examine how different combinations of biases, experiences, and environments shape heuristic patterns- capturing the multifaceted nature of internationalization. Future research could also examine how stable traits (e.g. risk tolerance, attribution style) and firm-level resources (e.g. financial or technological capacity) interact with experience-driven biases in shaping internationalization decisions.

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Notes

1. Two recent exceptions include [Faroque et al. \(2025a\)](#) on cognitive heuristics in entry mode choice and [Faroque et al. \(2025b\)](#) on cognitive bias in international entrepreneurial orientation.
2. INV internal factors may include cultural differences among partners, lower levels of human resources, internal capabilities of firms, and partner opportunism. External factors may involve market uncertainty and turbulence, rapid technological change, institutional distance between host and home countries, high levels of corruption, and weaker intellectual property rights in host markets ([Hennart and Slangen, 2015](#)).

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Further reading

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