

CULTURAL COGNITION AND ENTREPRENEURIAL OPPORTUNITY PERCEPTION: TOWARD AN INTEGRATED CONCEPTUAL FRAMEWORK

OKHAWERE, PAULSON YOUNG OFENIMU Ph.D.

FEDERAL UNIVERSITY OF EDUCATION, P.M.B. 39, KONTAGORA, NIGER STATE,
NIGERIA

Phone: +2349156215770

Corresponding Author Email: gainsp@yahoo.com

DOI: <https://doi.org/10.57233/gujed.v4i1.02>

Abstract

Entrepreneurial opportunity perception remains central to entrepreneurship theory as it links environmental conditions to entrepreneurial action. However, existing literature often treats culture as a background variable without formalising it into testable cognitive constructs. This limits a clear understanding of how cultural patterns shape cognition, opportunity framing, and subsequent entrepreneurial behaviour, particularly across diverse institutional contexts. This study aims to: (1) synthesise insights from cognitive, cross-cultural, and entrepreneurship literature; (2) develop operational cultural–cognitive constructs that explain opportunity perception; and (3) advance propositions linking these constructs to discovery- and creation-oriented opportunity processes. The study adopts a conceptual review approach, integrating interdisciplinary literature to identify and formalise key cultural–cognitive constructs, including cultural uncertainty tolerance, improvisation schemas, interpretive repertoires, and collective opportunity scripts. A conceptual framework is developed to illustrate the relationships between these constructs, opportunity perception modes, and entrepreneurial outcomes. The review reveals that opportunity perception is not purely an individual cognitive process but is deeply embedded in culturally patterned systems of meaning. The proposed constructs systematically explain variations in how entrepreneurs interpret uncertainty, frame opportunities, and engage in discovery versus creation processes. The framework highlights how cultural cognition shapes entrepreneurial action and innovation pathways. The study advances entrepreneurship theory by integrating culture and cognition into a unified, testable framework. It demonstrates that culturally embedded cognition is a critical determinant of opportunity perception and provides a more nuanced explanation of cross-contextual variations in entrepreneurial behaviour. The study recommends that researchers empirically test the proposed constructs across diverse cultural contexts. Entrepreneurship educators should incorporate culturally informed cognitive training, while policymakers and practitioners should design context-sensitive interventions that enhance opportunity framing and innovation capacity.

Keywords: Cognitive entrepreneurship; Cultural cognition; Entrepreneurial action; Opportunity framing; Opportunity perception

Introduction

Entrepreneurial opportunity perception is fundamentally a cognitive process whereby individuals detect, interpret, and evaluate potential avenues for value creation within complex environments. Traditional entrepreneurship research has often treated opportunity perception as an outcome of individual traits or contextual facilitators, such as access to resources or market conditions,

without sufficiently theorising the process through which entrepreneurs perceive and frame opportunities (Shane & Venkataraman, 2000; Turner et al., 2024). Despite advances in cognitive entrepreneurship (e.g., entrepreneurial alertness and mental models), extant work has tended to foreground cognition as a static set of traits or heuristics, glossing over how deeper cognitive mechanisms interact with cultural contexts to shape opportunity perception. Indeed, scholars continue to debate whether opportunities are *discovered* or *created*, with both perspectives implicitly assuming universal cognitive processes rather than culturally shaped ones (Kuckertz et al., 2017; Turner et al., 2024).

At the same time, culture, comprising shared values, norms, and interpretive frames, remains influential in entrepreneurship research, often invoked as a distal explanans for differences in entrepreneurial activity across regions or groups. While culture's influence on entrepreneurial *intentions* and *behaviours* has been empirically documented (Affum-Osei et al., 2024), the literature reveals a conceptual gap: culture is largely treated as a background factor, with limited formalisation into testable cognitive constructs that explain *how* entrepreneurs actively perceive and interpret opportunities. Reviews of entrepreneurship culture research highlight that links between cultural values and individual cognitive processes remain under-elaborated, with mediating mechanisms often unspecified (Hayton et al., 2024).

This conceptual review therefore seeks to shift the analytical focus from culture as an exogenous background to culture as an integral part of cognitive processing in entrepreneurial opportunity perception. Specifically, it aims to formalise cultural-cognitive constructs, such as culturally patterned uncertainty tolerance, interpretive schemas, and framing repertoires, that mediate how entrepreneurs make sense of ambiguous information and frame potential opportunities. Addressing this gap has both theoretical and practical value: a deeper understanding of cultural cognition can help explain variations in discovery vs. creation approaches to opportunities, and why certain traits (e.g., holistic vs. analytic cognition) predict distinct innovation strategies.

The objectives of this review are thus to (1) synthesize cognitive and cultural literatures on entrepreneurial perception, (2) propose operational cultural-cognitive constructs, and (3) advance propositions linking these constructs to opportunity perception processes. In doing so, the review contributes to a more nuanced conceptualisation of how culture and cognition jointly shape entrepreneurial opportunity perception.

Entrepreneurial Opportunity Perception: Discovery, Creation, and Cognition

Entrepreneurial opportunity perception occupies a central position in entrepreneurship theory, serving as the cognitive gateway between environmental conditions and entrepreneurial action. Early foundational work framed opportunities as objective phenomena waiting to be identified by alert individuals, a position most closely associated with opportunity discovery theory. From this perspective, opportunities exist independently of entrepreneurs and are recognised through superior information, prior knowledge, or heightened alertness (Shane & Venkataraman, 2000; Alvarez & Barney, 2007). Cognition, in this view, operates as an information-processing mechanism that enables some individuals to notice market inefficiencies that others overlook. While influential, this approach implicitly assumes relatively universal cognitive processes and treats contextual differences, such as culture, as external moderators rather than constitutive elements of perception.

In contrast, opportunity creation theory challenges the assumption of pre-existing opportunities by arguing that opportunities emerge endogenously through entrepreneurial action, experimentation, and social interaction (Alvarez et al., 2013). Here, opportunity perception is not a matter of recognising objective signals but of constructing meaning under uncertainty. Cognition plays a more generative role, involving imagination, interpretation, and enactment. Yet, even within this stream, cognitive processes are often treated as generic and individual-level, with limited attention to how culturally shared interpretive frameworks shape what entrepreneurs imagine as feasible, legitimate, or desirable.

Recent scholarship increasingly recognises cognition as the unifying mechanism underlying both discovery and creation perspectives. Rather than viewing these approaches as mutually exclusive, contemporary studies suggest that they represent distinct cognitive modes of opportunity perception activated under different conditions of uncertainty and institutional structure (McMullen & Shepherd, 2006; Wood et al., 2019). Discovery-oriented perception tends to rely on analytical reasoning, pattern recognition, and predictive logic, whereas creation-oriented perception emphasises sensemaking, experimentation, and effectual reasoning. However, this integrative turn remains incomplete because it continues to under-theorise why entrepreneurs systematically differ in their cognitive orientations across contexts.

This gap becomes particularly salient when considering cross-cultural variation in entrepreneurial behaviour. Empirical evidence shows that entrepreneurs operating in different cultural environments display persistent differences in opportunity evaluation, risk interpretation, and innovation pathways (George et al., 2016; Autio et al., 2021). Yet, much of this work explains variation by appealing to macro-level cultural dimensions, such as individualism or uncertainty avoidance, without specifying how these dimensions translate into micro-level cognitive processes of opportunity perception. As a result, culture remains an indirect explanans, while cognition is treated as context-neutral.

Cognitive entrepreneurship research has advanced important concepts such as mental models, heuristics, and attention, but these constructs are rarely situated within culturally patterned systems of meaning (Grégoire et al., 2015; Mitchell et al., 2020). Consequently, the literature lacks a coherent account of how culturally embedded cognition influences whether entrepreneurs approach opportunities as discoverable market gaps or as malleable possibilities to be shaped through action. This limitation constrains both theoretical precision and empirical testability, particularly in non-Western and emerging-economy contexts where opportunity conditions are more ambiguous and institutional environments more fluid.

This section therefore positions opportunity perception as a cognitively mediated process that spans discovery and creation logics, while highlighting the need to move beyond universalist cognitive assumptions. By foregrounding cognition as culturally embedded rather than purely individual, the review sets the stage for a more nuanced explanation of how entrepreneurs perceive, frame, and enact opportunities differently across contexts. Such an approach not only reconciles competing opportunity theories but also opens analytical space for formalising cultural cognition

Culture in Entrepreneurship Research: From Contextual Variable to Cognitive Infrastructure

Culture has long occupied a prominent place in entrepreneurship research, primarily as a contextual factor used to explain cross-national and cross-regional differences in entrepreneurial activity. Early and influential studies drew heavily on value-based frameworks, portraying culture as a relatively stable system of shared norms and beliefs that shape entrepreneurial intentions, risk preferences, and rates of new venture creation (Hofstede, 2001; Hayton et al., 2002). Within this tradition, cultural dimensions such as individualism-collectivism or uncertainty avoidance were treated as distal antecedents influencing whether entrepreneurship is encouraged or constrained in a given society. While this approach generated important insights, it largely positioned culture as an exogenous background variable, analytically separated from the cognitive processes through which entrepreneurs perceive and interpret opportunities.

Subsequent research extended this line of inquiry by examining how culture moderates the relationship between individual characteristics and entrepreneurial outcomes. For example, studies have shown that cultural values condition the effects of self-efficacy, risk tolerance, and social capital on opportunity recognition and exploitation (Liñán & Fayolle, 2015; Stephan & Uhlaner, 2010). However, even in these more nuanced accounts, culture typically functions as a higher-level contextual force rather than as an integral component of cognition itself. As a result, the micro-foundations linking culture to entrepreneurial decision-making remain weakly specified.

More recent scholarship has begun to question this treatment of culture as static and external. Drawing on advances in sociology and cognitive science, some scholars argue that culture should be understood as a system of shared meaning structures and interpretive schemas that actively shape how individuals attend to, interpret, and evaluate information (Mitchell et al., 2020). From this perspective, culture does not merely influence whether entrepreneurship occurs, but fundamentally shapes how entrepreneurs think, particularly under conditions of uncertainty and ambiguity that characterise opportunity perception.

Despite this conceptual shift, entrepreneurship research has been slow to fully integrate culture into cognitive explanations of opportunity perception. Reviews of the field indicate that cultural constructs are often broad, proxy-based, and insufficiently operationalised, limiting their explanatory and predictive power (Hayton et al., 2021). This has led to a proliferation of studies that invoke culture rhetorically, without clarifying the specific cognitive mechanisms through which cultural patterns influence entrepreneurial sensemaking and framing. Consequently, culture risks becoming an all-purpose explanans rather than a theoretically precise construct.

Reconceptualising culture as a cognitive infrastructure offers a way forward. Rather than viewing culture solely as a set of values or norms, this approach emphasises culturally patterned ways of reasoning, interpreting uncertainty, and constructing plausibility. Such an orientation aligns with emerging work on socially situated cognition, which highlights that individual cognitive processes are embedded in shared cultural repertoires (Mitchell et al., 2020). For entrepreneurship research, this implies that opportunity perception is shaped not only by

individual alertness or creativity but also by culturally informed schemas that guide what is noticed, how it is framed, and which courses of action appear legitimate.

This section thus argues for moving beyond treating culture as a contextual variable toward understanding it as an integral part of entrepreneurial cognition. Doing so is essential for developing testable cultural-cognitive constructs capable of explaining systematic variation in opportunity perception across contexts, particularly in environments characterised by institutional fluidity and resource constraints. This reconceptualisation lays the groundwork for integrating culture more directly into theories of opportunity discovery and creation.

Cognitive Foundations of Opportunity Perception

Entrepreneurial opportunity perception is deeply rooted in cognitive processes, encompassing how entrepreneurs attend to information, interpret cues, and form mental representations that guide decision-making. Cognition in entrepreneurship extends beyond simple information processing, incorporating schemas, heuristics, mental models, and pattern recognition as central mechanisms that shape what opportunities are noticed and how they are evaluated (Baron, 2006; Grégoire et al., 2015). These mechanisms allow entrepreneurs to manage uncertainty, selectively focus attention on relevant environmental signals, and interpret ambiguous information in ways that inform action. In essence, cognitive processes determine not only the detection of opportunities but also their framing and perceived feasibility, providing the link between environmental stimuli and entrepreneurial behaviour.

Schemas, or structured knowledge frameworks, serve as cognitive shortcuts that enable entrepreneurs to recognize patterns in complex and dynamic environments. For instance, prior industry experience, prior start-up experience, or domain-specific knowledge can function as schemas, facilitating rapid evaluation and classification of potential opportunities (Baron & Ensley, 2006). Heuristics, defined as mental rules of thumb, similarly allow entrepreneurs to make quick judgments under uncertainty, though they may also introduce systematic biases (Mitchell et al., 2020). Mental models, which integrate prior knowledge and expectations about how systems operate, further enable entrepreneurs to anticipate outcomes, assess risk, and strategize responses to novel or complex situations (Gavetti, 2012).

Pattern recognition plays a complementary role, particularly in opportunity discovery. Entrepreneurs often identify recurring configurations or anomalies in markets, technologies, or social trends that signal potential gaps or unmet needs (Shane, 2003). Such recognition is inherently cognitive, relying on accumulated experience and domain knowledge to connect previously unlinked elements. While pattern recognition is central to discovery-oriented perception, creation-oriented perception emphasizes sensemaking and imagination, whereby entrepreneurs actively construct opportunities by interpreting and combining environmental cues in novel ways (Alvarez et al., 2013). Both modes underscore the centrality of cognition but differ in the mechanisms emphasized: discovery leans on analytical processing, while creation involves iterative interpretation and enactment.

Despite extensive theoretical work on cognition, a persistent limitation is the under-specification of how culture interacts with cognitive mechanisms. While cognitive structures such as schemas

and heuristics are often assumed to be universal, research increasingly suggests that they are culturally embedded, shaped by shared norms, values, and cognitive styles (Mitchell et al., 2020; Autio et al., 2021). For example, holistic versus analytic reasoning, prevalent in different cultural contexts, influences how environmental information is integrated and which opportunities are deemed salient. This highlights the importance of conceptualising cognition not as a purely individual-level phenomenon but as intertwined with culturally patterned interpretive frameworks, providing a foundation for formalizing testable cultural-cognitive constructs.

In sum, the cognitive foundations of opportunity perception illuminate the mechanisms through which entrepreneurs detect, interpret, and construct opportunities. Recognizing the interplay between cognitive processes and cultural context is essential for understanding systematic variations in opportunity perception across environments. This sets the stage for integrating cultural cognition into opportunity-framing mechanisms, which is addressed in subsequent sections of this review.

Cultural Cognition and Opportunity Framing Mechanisms

Opportunity perception in entrepreneurship is not a purely individual cognitive exercise; it is deeply shaped by culturally embedded ways of interpreting, attending to, and framing environmental information. Scholars increasingly argue that culture functions as a cognitive infrastructure, providing shared schemas, heuristics, and interpretive repertoires that guide how entrepreneurs construct meaning from uncertain and ambiguous contexts (Mitchell et al., 2020). This perspective reframes culture from a background variable into an active mechanism influencing opportunity framing, the process by which entrepreneurs evaluate, prioritize, and make actionable sense of potential opportunities.

Opportunity framing involves the selection and interpretation of cues from the environment, often under conditions of incomplete information and high uncertainty. Cultural cognition shapes which cues are attended to and how they are interpreted. For instance, entrepreneurs from cultures characterized by holistic cognition tend to perceive interconnections among market actors, resources, and institutional arrangements, facilitating recognition of systemic or integrative opportunities (Nisbett et al., 2001; Autio et al., 2021). Conversely, entrepreneurs socialized in analytic cultures may focus on discrete market gaps, relying on linear cause-effect reasoning to detect opportunities. Such culturally patterned cognitive styles influence whether entrepreneurs adopt discovery-oriented approaches, emphasizing pattern recognition and prediction, or creation-oriented approaches, emphasizing experimentation and enactment.

Cultural cognition also affects uncertainty interpretation and risk framing. Entrepreneurs embedded in cultures with high tolerance for ambiguity are more likely to interpret uncertain situations as fertile grounds for innovation, fostering improvisation and bricolage in opportunity development (George et al., 2016). In contrast, cultures emphasizing predictability and rule adherence may constrain entrepreneurial action to opportunities with clearer structures or established paths, favouring formalized planning over improvisational exploration. These tendencies are evident in cross-national studies comparing entrepreneurial behaviours, where culturally shaped heuristics and normative expectations consistently predict differences in innovation strategies and opportunity enactment (Hayton et al., 2021).

The influence of cultural cognition extends to interpretive schemas and narrative construction. Entrepreneurs rely on culturally grounded mental models to generate plausibility assessments, frame strategic options, and communicate opportunity potential to stakeholders. For example, narrative framing in opportunity pitching often aligns with culturally shared story structures, invoking familiar metaphors, problem–solution scripts, or success narratives that resonate with local norms and values. Such culturally informed framing not only affects entrepreneurs’ own perception but also mediates stakeholders’ receptivity to proposed ventures, influencing resource acquisition and legitimacy (Grégoire et al., 2015).

Despite growing recognition of cultural cognition, empirical integration into opportunity perception research remains limited. Most studies continue to rely on broad cultural proxies, such as Hofstede’s dimensions, without articulating mechanistic links between specific cognitive processes and opportunity framing. Addressing this gap requires operationalizing constructs such as culturally patterned heuristics, uncertainty framing schemas, and interpretive repertoires, enabling systematic examination of how culture shapes both the discovery and creation of opportunities.

In conclusion, framing mechanisms are central to understanding why entrepreneurs perceive, prioritize, and act upon opportunities differently across contexts. Cultural cognition provides the lens through which environmental information is interpreted, uncertainty is managed, and action is justified. Recognizing these mechanisms allows entrepreneurship research to move beyond universalist assumptions, paving the way for formalized, testable constructs that link culture, cognition, and opportunity perception in diverse economic and institutional settings.

Operationalising Cultural-Cognitive Constructs in Opportunity Perception

To advance research on entrepreneurial opportunity perception, it is essential to formalise cultural-cognitive constructs that capture how culturally embedded cognition shapes recognition, framing, and enactment of opportunities. While prior work highlights the influence of culture and cognition independently, few studies integrate them into testable frameworks that link specific cultural patterns with cognitive processes. Operationalising these constructs enables systematic empirical investigation and facilitates cross-cultural comparisons, bridging the gap between theory and measurement (Mitchell et al., 2020; Hayton et al., 2021).

One key construct is cultural uncertainty tolerance, reflecting culturally patterned interpretations of ambiguity and risk. Entrepreneurs in high-uncertainty-tolerant cultures are more likely to perceive ambiguous conditions as fertile grounds for opportunity creation, employing improvisational strategies and bricolage to act under incomplete information (George et al., 2016; Autio et al., 2021). By contrast, low-uncertainty-tolerant cultures tend to favour discovery-oriented, predictive approaches, privileging opportunities that can be analytically justified. Measurement can include both perceived ambiguity scales and behavioural indicators such as resource flexibility, adaptive experimentation, and the use of contingency planning.

Another operational construct is improvisation schemas, which capture culturally shaped cognitive routines for making decisions in uncertain, novel, or complex situations. These schemas integrate attention, interpretation, and rapid problem-solving patterns that entrepreneurs

draw upon to generate actionable opportunities. For example, in collectivist contexts, improvisation may emphasize collaborative solution-building and leveraging social networks, whereas in individualist contexts, it may focus on autonomous ideation and competitive advantage (Baron, 2006; Grégoire et al., 2015). Operationalisation can involve scenario-based assessments, self-report measures, and qualitative coding of decision-making narratives.

A third construct, culturally grounded interpretive repertoires, reflects shared ways of framing problems, plausibility assessment, and opportunity narratives. Entrepreneurs rely on these repertoires to interpret environmental signals, assess legitimacy, and communicate the desirability and feasibility of opportunities to stakeholders (Mitchell et al., 2020). They influence both discovery and creation processes by guiding attention, shaping inference patterns, and defining what counts as a credible opportunity. Measurement approaches can include discourse analysis, structured interviews, and rating schemes for narrative congruence with culturally shared cognitive frames.

Finally, collective opportunity scripts formalise the idea that cognition is not only individual but socially and culturally embedded. These scripts are structured representations of opportunity recognition and enactment that circulate within communities, industries, or cultural groups, influencing entrepreneurial expectations, strategy selection, and innovation pathways (Hayton et al., 2021). Operationalising this construct may involve mapping networked patterns of opportunity narratives, coding repeated strategic approaches, or quantifying shared assumptions in entrepreneurial communities.

Together, these constructs provide a formal bridge between culture and cognition, enabling precise hypotheses about how cultural patterns shape discovery- versus creation-oriented opportunity perception. By defining and measuring these constructs, researchers can examine variations across contexts, test propositions linking cultural cognition to entrepreneurial action, and inform practice by identifying culturally informed strategies for opportunity development. Integrating these constructs into a conceptual framework sets the stage for the subsequent proposition development and visual representation of the model.

Propositions and Conceptual Framework

Building on the operationalised cultural-cognitive constructs, this section articulates propositions linking cultural cognition to entrepreneurial opportunity perception. The central premise is that entrepreneurs' perceptions and enactments of opportunities are shaped by the interaction of culturally embedded cognitive mechanisms, influencing whether opportunities are approached through discovery or creation logics.

Proposition 1 (P1): Higher levels of cultural uncertainty tolerance positively influence the adoption of creation-oriented opportunity perception, fostering improvisation, experimentation, and bricolage in ambiguous contexts (George et al., 2016; Autio et al., 2021).

Proposition 2 (P2): Robust improvisation schemas, informed by culturally shaped cognitive routines, enhance entrepreneurs' capacity to generate novel solutions and reconfigure resources, supporting opportunity creation under uncertainty (Baron, 2006; Grégoire et al., 2015).

Proposition 3 (P3): The use of culturally grounded interpretive repertoires guides attention and plausibility assessments, influencing whether opportunities are framed as feasible and legitimate within a specific cultural context, thereby affecting both discovery- and creation-oriented processes (Mitchell et al., 2020).

Proposition 4 (P4): Collective opportunity scripts mediate the translation of individual perception into actionable strategies by providing culturally shared cognitive templates for assessing, communicating, and mobilising opportunities, influencing innovation outcomes and venture legitimacy (Hayton et al., 2021).

These propositions collectively illustrate a model in which cultural-cognitive constructs serve as antecedents to opportunity perception, determining the cognitive pathways through which entrepreneurs detect, interpret, and enact opportunities. Opportunity perception, in turn, drives strategic decisions, innovation orientation, and venture performance. The framework highlights the dynamic interplay between culture and cognition, offering testable constructs for cross-cultural entrepreneurship research.

The conceptual framework (see Figure 1) visually maps these relationships, showing inputs (cultural-cognitive constructs) feeding into the opportunity perception process and ultimately shaping entrepreneurial action and innovation outcomes. This representation provides a clear basis for empirical testing and offers a foundation for extending theory on culturally informed entrepreneurial cognition.

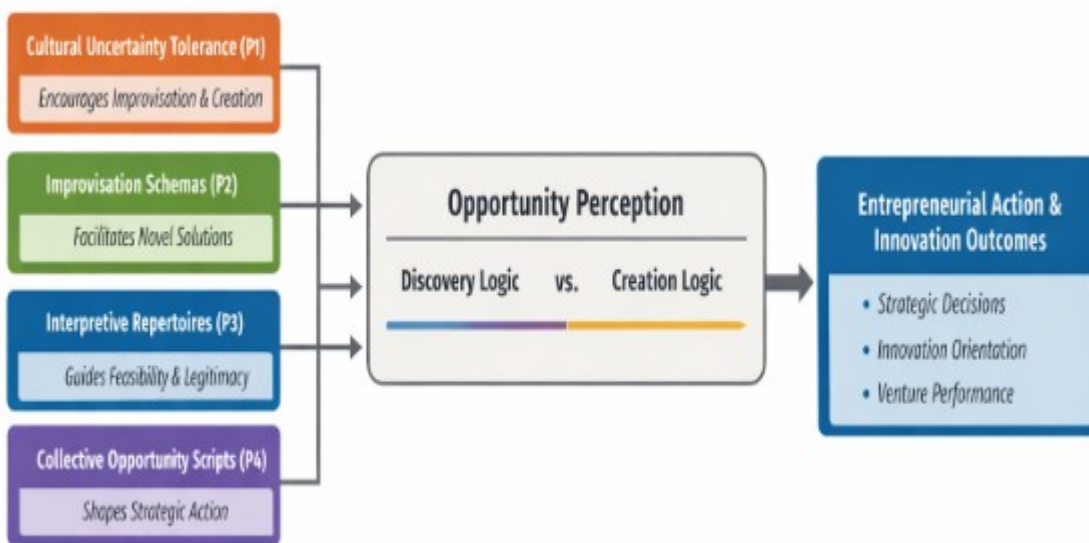


Figure 1: Cultural-Cognitive Model of Opportunity Perception and Entrepreneurial Outcomes

Implications and Recommendations

This section translates the conceptual insights on cultural-cognitive constructs and opportunity perception into actionable implications for theory, research, and practice. Understanding how culture shapes cognition in opportunity framing allows stakeholders to design interventions, training, and policies that better support entrepreneurial outcomes.

1. Research Implications

The framework highlights the need for empirical studies that integrate culture and cognition rather than treating culture as a distal variable. Scholars should operationalise constructs such as uncertainty tolerance, improvisation schemas, interpretive repertoires, and collective opportunity scripts, testing their effects on opportunity perception across diverse contexts. Cross-cultural comparisons, experimental studies, and longitudinal designs can provide robust evidence on how these constructs influence discovery- versus creation-oriented processes. Additionally, researchers can explore mediating and moderating mechanisms, such as institutional support or social networks, to refine the explanatory power of the model (Mitchell et al., 2020; Hayton et al., 2021).

2. Policy Implications

Policymakers can leverage these insights to nurture culturally informed entrepreneurial ecosystems. Policies that promote experimentation, tolerance for failure, and adaptive learning may enhance creation-oriented opportunity perception. Tailoring entrepreneurship education and support programmes to local cognitive and cultural norms can improve engagement, legitimacy, and effectiveness. For example, interventions that encourage collaborative problem-solving may be particularly effective in collectivist contexts, while emphasizing individual initiative may resonate in analytic, individualist cultures (George et al., 2016; Autio et al., 2021).

3. Practice Implications

Entrepreneurs and venture-support organizations can benefit from training programmes that develop culturally aligned cognitive strategies, such as scenario-based improvisation exercises, narrative framing workshops, and heuristic awareness training. Understanding cultural-cognitive patterns can also guide opportunity evaluation, resource mobilization, and stakeholder communication, improving the likelihood of venture success and innovation adoption.

In summary, formalizing cultural-cognitive constructs offers a pathway for evidence-based interventions in research, policy, and practice, fostering entrepreneurship that is both contextually sensitive and cognitively robust.

Conclusion

This conceptual review demonstrates that entrepreneurial opportunity perception is a culturally embedded cognitive process, integrating discovery and creation logics. By formalising constructs such as cultural uncertainty tolerance, improvisation schemas, interpretive repertoires, and

collective opportunity scripts, the study provides a framework for understanding how entrepreneurs perceive, frame, and enact opportunities across diverse contexts. The propositions and conceptual model illustrate the mechanisms through which culture shapes cognition, attention, and decision-making, offering a foundation for empirical testing. Ultimately, the review advances theory by bridging culture and cognition, and offers actionable insights for researchers, policymakers, and practitioners seeking to foster context-sensitive, innovative, and effective entrepreneurial behaviour.

References

- Affum-Osei, E., Asante, E. A., Forkuoh, S. K., & Agyapong, A. (2024). Cultural values, entrepreneurial cognition, and opportunity recognition: A systematic review and research agenda. *International Journal of Entrepreneurial Behavior & Research*, 30(1), 1–24. <https://doi.org/10.1108/IJEBR-06-2023-0541>
- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1–2), 11–26. <https://doi.org/10.1002/sej.4>
- Alvarez, S. A., Barney, J. B., & Anderson, P. (2013). Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, 24(1), 301–317. <https://doi.org/10.1287/orsc.1110.0727>
- Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2021). Entrepreneurial innovation: The importance of context. *Research Policy*, 50(1), 104063. <https://doi.org/10.1016/j.respol.2020.104063>
- Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs “connect the dots” to identify new business opportunities. *Academy of Management Perspectives*, 20(1), 104–119. <https://doi.org/10.5465/amp.2006.19881923>
- Baron, R. A., & Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331–1344. <https://doi.org/10.1287/mnsc.1060.0538>
- Gavetti, G. (2012). Toward a behavioral theory of strategy. *Organization Science*, 23(1), 267–285. <https://doi.org/10.1287/orsc.1100.0584>
- George, G., Corbishley, C., Khayesi, J. N. O., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal*, 59(2), 377–393. <https://doi.org/10.5465/amj.2016.4002>
- Grégoire, D. A., Cornelissen, J. P., Dimov, D., & van Burg, E. (2015). The mind in the middle: Taking stock of affect and cognition research in entrepreneurship. *International Journal of Management Reviews*, 17(2), 125–142. <https://doi.org/10.1111/ijmr.12060>

- Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice*, 26(4), 33–52. <https://doi.org/10.1177/104225870202600403>
- Hayton, J. C., George, G., & Zahra, S. A. (2024). National culture and entrepreneurship: A review and extension of theory and practice. *Entrepreneurship Theory and Practice*, 48(2), 345–372. <https://doi.org/10.1177/10422587231210467>
- Hayton, J. C., Zahra, S. A., George, G., & Cook, G. (2021). Entrepreneurial culture: Conceptual foundations, measurement, and future research directions. *Entrepreneurship Theory and Practice*, 45(4), 757–794. <https://doi.org/10.1177/1042258720953025>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Sage.
- Kuckertz, A., Kollmann, T., Krell, P., & Stöckmann, C. (2017). Understanding, differentiating, and measuring opportunity recognition and opportunity exploitation. *International Journal of Entrepreneurial Behavior & Research*, 23(1), 78–97. <https://doi.org/10.1108/IJEBR-12-2015-0290>
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907–933. <https://doi.org/10.1007/s11365-015-0356-5>
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132–152. <https://doi.org/10.5465/amr.2006.19379628>
- Mitchell, R. K., Randolph-Seng, B., & Mitchell, J. R. (2020). Socially situated cognition: Imagining new opportunities for entrepreneurship research. *Academy of Management Review*, 45(1), 1–27. <https://doi.org/10.5465/amr.2017.0261>
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291–310. <https://doi.org/10.1037/0033-295X.108.2.291>
- Shane, S. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Edward Elgar.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226. <https://doi.org/10.5465/amr.2000.2791611>
- Stephan, U., & Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. *Journal of International Business Studies*, 41(8), 1347–1364. <https://doi.org/10.1057/jibs.2010.14>

- Turner, T., McMullen, J. S., & Sarasvathy, S. D. (2024). Opportunity formation: Rethinking discovery and creation through a cognitive lens. *Small Business Economics*, 62(1), 1–18. <https://doi.org/10.1007/s11187-023-00856-4>
- Wood, M. S., McKelvie, A., & Haynie, J. M. (2019). Making it personal: Opportunity individuation and the shaping of opportunity beliefs. *Journal of Business Venturing*, 34(2), 252–272. <https://doi.org/10.1016/j.jbusvent.2018.10.005>