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Entrepreneurial Knowing: Connecting Knowledge management and Intellectual Capital in Early-Stage Startups

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Abstract

This study examines how insecurity forms entrepreneurial knowing in early-stage startups and how knowledge management conditions the development of intellectual capital, with a focus on information behavior in resource-constrained settings. Based on 11 semi-structured interviews with early-stage entrepreneurs, the study explores how insecurity influences information-seeking, belief formation, and testing processes. Entrepreneurial knowing is driven by market hybridity, identity complexity, disciplinary ambiguity, and access constraints, creating epistemic fragmentation. Founders concentrate information processing and interpretation, while shared understanding across boundaries is limited. Knowledge Management facilitates information flow, enabling access, trust, and shared interpretation, but also introducing misalignment and filtered knowledge exchange. Belief formation trusts on ambiguous information, whereas testing is constrained by socially structured barriers. Intellectual capital arises enthusiastically through these socially refereed information behaviors. The study highlights the active, socially conditioned nature of knowledge in startups, clarifies how insecurity shapes information behavior, and validates Knowledge management and intellectual capital relationships are dependent with each another.

Keywords: entrepreneurship, knowledge management, intellectual capital, insecurity

Introduction

Entrepreneurial insecurity—rising from both internal and the external environment—constitutes a foundational condition for entrepreneurial knowledge (Zellweger, 2023). While the knowledge management literature has traditionally emphasized the creation and utilization of knowledge (Nonaka, 1998) the concept of knowing shifts the focus to the learning processes through which knowledge is continually adapted in practice, thereby enhancing actors' capacity for effective application (Atherton, 2003). At the cooperative level, a social group's knowing capability forms the core of its intellectual capital (J & S, 1998). This perspective underscores that knowledge-based decision-making is inherently dynamic, continuously refined in response to evolving internal and external information. Scholars increasingly emphasize the importance of considering organizational context and size when analyzing knowledge behaviors (Shi 2025). Much of the prior organizational knowledge literature has focused on large firms to illustrate the codification and transfer of knowledge, as these organizations provide a structured and resource-rich environment (J & S, 1998). In contrast, (Atherton, 2003) cautions that in small businesses, knowledge behaviors are often shaped by the individual performance of entrepreneurs and are heavily influenced by the personalization inherent in decision-making processes. Entrepreneurs rely on judgment and intuition to navigate information about available options and their unknown probabilities (Rindova & Courtney, 2020). Accordingly, entrepreneurial knowing is oriented toward generating the information needed to assess whether an opportunity is valuable and to determine how it should be pursued (Foss & Klein, 2017).

Entrepreneurial knowing capacity is further shaped by knowledge management, which structures the relational conditions that enable knowledge exchange and recombination (Nonaka, 1998). Under conditions of entrepreneurial insecurity—where information is incomplete, ambiguous, and difficult to evaluate—knowledge management plays a critical role in shaping how entrepreneur access, interpret, and act on knowledge. Through its structural, relational, and cognitive dimensions, knowledge management provides resources that enhance both the efficiency of action and the capacity for learning when navigating uncertain environments. Yet, empirical insight remains limited into how knowledge management conditions the development and mobilization of intellectual capital for entrepreneurial knowing in early-stage startups facing persistent insecurity. Drawing on a qualitative interview study with 11 early-stage entrepreneurs, this study examines the locus and mechanisms of insecurity in entrepreneurial knowing and learning. It makes three contributions to research on entrepreneurial knowledge under insecurity. First, it deepens understanding of how entrepreneurs experience and interpret insecurity as an integral part of knowing and judgment, rather than as a condition external to decision making. Second, the study extends organizational knowledge creation scholarship by demonstrating how knowing emerges through situated, socially embedded learning processes in early-stage ventures, building on prior work that emphasizes the limits of codified knowledge in small and entrepreneurial contexts. Third, this research advances knowledge management theory by explicating how different dimensions of knowledge management shape entrepreneurial knowing and intellectual capital formation. In doing so, the article establishes a stronger conceptual link between information behavior under insecurity, knowledge management, and entrepreneurial knowing in early-stage startups.

Literature Review

Entrepreneurial Insecurity activity is inherently unreliable, shaped by both external environmental factors and internal organizational characteristics. (Atherton, 2003) identifies three primary sources of external insecurity. First, insecurity arises from the relational context, where outcomes are unpredictable due to the complexity of social interactions. Second, external events that are independent of a firm's activities—such as market fluctuations, regulatory changes, or technological shifts—create additional unpredictability. Third, the specific contextual conditions in which a business operates can either constrain or enable strategic responses, further influencing insecurity. While external factors shape the environment in which entrepreneurs operate, internal organizational characteristics determine the firm's capacity for learning. (Atherton, 2003) highlights three key internal factors: threshold learning, resource scarcity, and managerial heuristics. Entrepreneurial Knowing in startups, critical knowledge forms the foundation of entrepreneurial authority and underpins decision-making aimed at achieving competitive advantage (Spender, 1996). The "entrepreneurs-as-scientists" perspective highlights entrepreneurs as active creators of value who experiment with and recombine knowledge, continuously updating their understanding through feedback in conditions of high insecurity (Zellweger, 2023).

From this perspective, entrepreneurial knowing emphasizes the ongoing process of generating knowledge through entrepreneur, rather than the static possession of entrepreneurial knowledge. This process encompasses experimentation, interpretation, bricolage, and active engagement with broader contexts (Shi, 2025). Entrepreneurs continuously revise their assumptions about market opportunities, evaluate incoming feedback, and adjust strategies to minimize prediction errors. This iterative process allows startups to refine their understanding of market fit, validate the reliability of feedback, and implement rational responses despite environmental insecurity. Entrepreneurial knowing can be understood through (Nonaka, Byosiere, Borucki, & Konno, 1994) SECI model, which describes knowledge creation as a dynamic interaction between tacit and explicit knowledge via Socialization, Externalization, Combination, and Internalization. Entrepreneurs continuously convert tacit insights into explicit strategies and integrate external knowledge, while internalizing feedback to refine tacit understanding, reflecting the iterative cycles of SECI. This aligns with (Spender, 1996) two-dimensional framework, which distinguishes between individual and social knowledge as well as explicit and implicit forms: entrepreneurial knowing emerges at the intersection of these dimensions, as tacit insights are shared socially, codified into explicit knowledge, and applied collectively to enhance learning.

The Interrelationships between Knowledge management and Intellectual Capital

Knowledge management is a resource for facilitating learning and reducing insecurity in entrepreneurial contexts. Following (J & S, 1998), knowledge management encompasses the total resources embedded in and accessible through an individual's or organization's network of relationships, comprising structural, relational, and cognitive dimensions. Structural knowledge management refers to the configuration of connections and communication channels among actors (Burt., 1992). Knowledge management not only facilitates coordination and knowledge transfer but also enhances learning and knowledge creation, which are essential for entrepreneurial success (Nonaka, Von Krogh, & Voelpel, Organizational knowledge creation theory: Evolutionary paths and future advances, 2006). By providing access to diverse perspectives, feedback, and resources, knowledge management supports both single-loop learning—correcting errors in action—and double-loop learning—revising underlying assumptions and strategies. These learning processes, in turn, strengthen entrepreneurial judgment by allowing entrepreneurs to make better-informed decisions under insecurity. Through these mechanisms, knowledge management contributes directly to intellectual capital—the organization's collective knowledge base and its capacity to apply, refine, and expand knowledge over time.

Philosophical perspectives on intellectual capital further illuminate its complexity. (Spender & Marr, 2012) distinguish among data, meaning, and practice as three levels of knowledge management. A positivistic view of data emphasizes the location and exchange of knowledge to optimize economic outcomes. An interpretive view of meaning highlights causal complexity and values experience-based sense making and adaptive improvement. An organic view of practice recognizes the limits of organizational control and emphasizes managing for "sufficient" rather than total optimization. This development—from viewing intellectual capital as a stock of knowledge assets to understanding it as a path-dependent and dynamic system—reflects the diversity of organizational forms and the insecurity of contemporary business environments. Although prior research has examined the sources of entrepreneurial insecurity, learning processes, and the role of knowledge management in knowledge creation, less attention has been paid to how entrepreneurs actively navigate insecurity through processes of knowing in early-stage ventures.

Research Methods

This study focuses on the early stages of startup development specifically technology and consulting firms of some country which includes Bangladesh (2 participant), Canada (1 participant), America (2 participant), Srilanka (1 participant), Philippines (1 participant), India (2 participant), Indonesia (1 participant), Malaysia (1 participant), encompassing both the nascent business stage and the new business stage of less than 3.5 years (GEM 2018). Participant began with virtual introductions during research, followed by email or LinkedIn invitations to participate in one-on-one interviews. Snowball sampling was employed to identify additional eligible participants through existing networks. To reduce potential sample selection bias associated with recruiting from similar social settings, additional participants were recruited from digital media startups listed on Angel List. All participants were informed of the study's purpose, risks and benefits, and intended dissemination of findings, resulting in a final sample of 11 participants. The researcher conducted interviews online followed a semi structured format, balancing consistency across participants with flexibility to explore emergent themes and typically lasted 40–50 minutes. First, line-by-line open coding was conducted to identify emergent concepts and practices. Second, related codes were systematically compared and grouped to surface broader patterns, tensions, and conceptual similarities, which were then refined into higher-order themes. Third, these themes were organized into analytical categories informed by both the emergent data structure and the study's research questions.

Results

This study examines mechanisms of insecurity in entrepreneurial knowing, with particular attention to how knowledge management adaptation and the development of intellectual capital in early-stage startups. Analysis of the interview data revealed four interrelated themes that constitute mechanisms of insecurity in knowing: (1) market hybridity, (2) identity complexity, (3) disciplinary ambiguity, and (4) access constraints. These mechanisms were analyzed through a belief formation and belief testing framework (Zellweger & Zenger, 2023), in conjunction with knowledge dimensions (J & S, 1998).

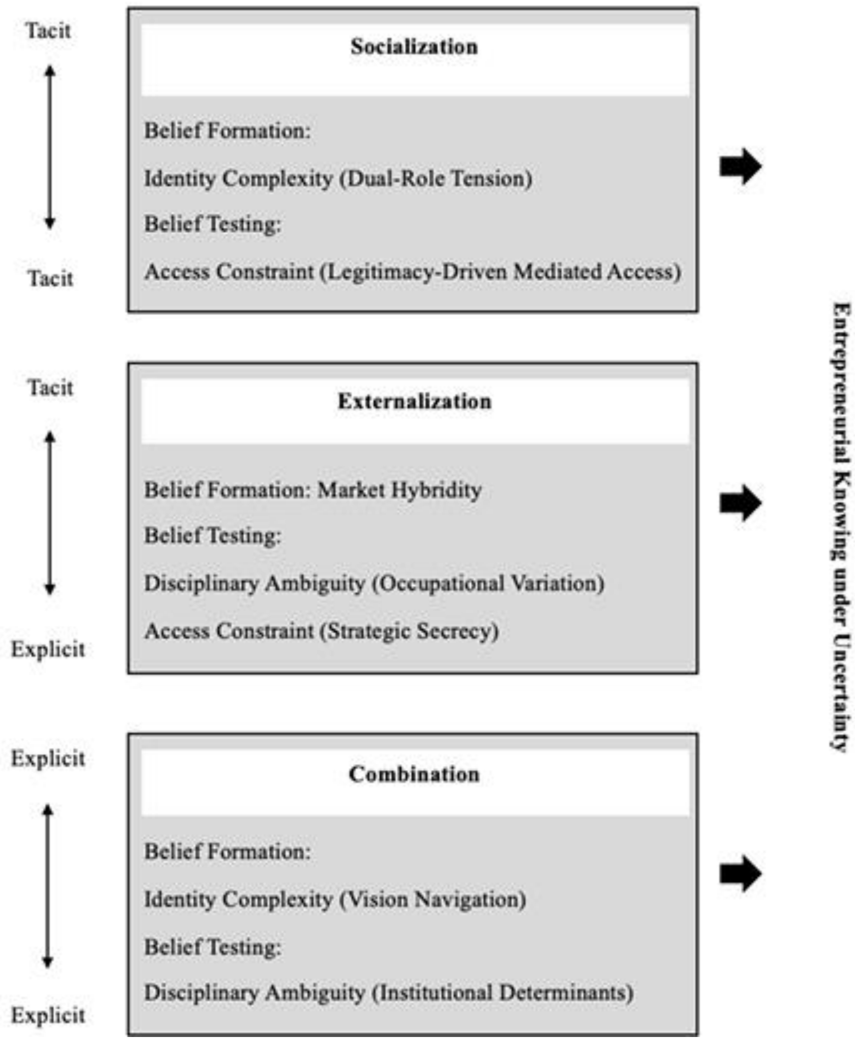

Figure: Map Showing the inter connection between Knowledge Management, Entrepreneurship and Action

Conclusion

This study demonstrates that insecurity is not merely an external condition but a constitutive element of entrepreneurial knowing in early-stage startups. By connecting knowledge management and intellectual capital, it shows how structural, relational, and cognitive dimensions of social networks shape the formation, testing, and mobilization of knowledge under insecurity. Market hybridity, identity complexity, disciplinary ambiguity, and access constraints illustrate how entrepreneurs generate and validate knowledge in resource-constrained environments. These findings extend knowledge management theory by situating knowledge conversion processes within socially embedded, dynamic contexts and conceptualizing intellectual capital as an evolving capacity for collective knowing under insecurity. Together, these contributions establish a stronger conceptual bridge between information behavior under insecurity, knowledge management, and intellectual capital in early-stage entrepreneurship.

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