MAKING SENSE OF THE MACHINE: A SENSEMAKING ANALYSIS OF AI ADOPTION AMONG INDEPENDENT CONSULTANTS IN SOUTHERN ALBERTA

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ABSTRACT

Canadian SMEs face a deceptive paradox: despite substantial national investment in artificial intelligence and widespread reports of value among adopters, generative AI (Gen AI) uptake remains abnormally low. This thesis explores that paradox through the lens of sensemaking theory, arguing that adoption barriers are primarily interpretive rather than technical. Drawing on Weick's sensemaking and Enactment–Selection–Retention (ESR) model, the thesis analyzes how 3 independent consultants in Alberta construct the meaning, relevance, and strategic implications of Gen AI under conditions of institutional, professional, and market-category equivocality. Using a qualitative, multiple-case study design, three teaching cases capture how leaders' interpretations emerge through identity commitments, analogical reasoning, social cues, and early enactments. Findings suggest that these leaders often frame Gen AI as illegitimate, professionally misaligned, or too ambiguous to operationalize, leading to defensive sensemaking and strategic inertia with implementing Gen AI advantages. These interpretive patterns narrow the perceived opportunity space, lock in "not relevant" narratives, and impede the development of AI-augmented knowledge capabilities. At scale, such micro-level interpretations contribute to systemic vulnerability across Canada's SME sector. The study extends sensemaking theory to technology-triggered ambiguity, identifies varieties of equivocality, and offers practical and policy recommendations focused on reshaping interpretive infrastructure rather than solely improving technical readiness.

ETHICS STATEMENT

Work described in this thesis received research ethics review under the following protocols and determinations:

Title	Ethics Body	Number	Date
Making Sense of Innovation: Understanding AI Adoption Processes in Alberta's SME's	University of Alberta Research Ethics Board (ARISE)	Pro00155487	Dec 8, 2025

USE OF GENERATIVE AI

Generative AI tools were used in a limited, supportive capacity during the preparation of this thesis. All ideas, analysis, and written content are my own. AI was used solely to assist with sentence-level editing for clarity and grammar, to identify potentially relevant scholarly sources, and to provide general feedback on readability. All suggestions and sources were independently reviewed, evaluated, and revised prior to inclusion. AI tools were not used to generate research content, develop arguments, or replace critical analysis. Full responsibility for the content, structure, interpretation, and conclusions of this work rests entirely with the author.

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence
ARISE	Alberta Research Information Services Solution (University of Alberta REB platform)
BDC	Business Development Bank of Canada
CEO	Chief Executive Officer
CRA	Canada Revenue Agency
eNPS	Employee Net Promoter Score
ERA	Emissions Reduction Alberta
ESR	Enactment–Selection–Retention (Weick's sensemaking cycle)
GDP	Gross Domestic Product
Gen AI	Generative Artificial Intelligence
HR	Human Resources
IT	Information Technology
KBV	Knowledge-Based View
KPI	Key Performance Indicator
LMS	Learning Management System
MBA	Master of Business Administration
ML	Machine Learning
MSc	Master of Science
OECD	Organisation for Economic Co-operation and Development
PMF	Product–Market Fit
PSB	Personal Services Business (Canada Revenue Agency classification)
SME	Small and Medium-sized Enterprise
TAM	Technology Acceptance Model
TOE	Technology–Organization–Environment (framework)
VC	Venture Capital

Chapter 1: Introduction - The SME Gen AI Adoption Paradox

In Canada, small and medium-sized enterprises (SMEs) constitute 98.1% of all businesses, employing 63.7% of the private-sector workforce. This includes over 5.8 million people in small firms and approximately 2.1 million in medium-sized firms. SMEs contribute nearly half of the GDP and account for over a third of goods exports (BDC.ca, 2025; Innovation Science and Economic Development Canada, 2025). Despite their economic significance, the adoption rate of Generative AI (Gen AI) technologies among Canadian SMEs remains low, having risen only slightly to 6.1% in Q1 2024 (Government of Canada, 2024b; Statistics Canada, 2025b). While 81.7% of adopters report current or anticipated value in Gen AI, the majority of SMEs still perceive it as irrelevant to their operations (Canadian Chamber of Commerce, 2024b; Government of Canada, 2024a). This adoption disconnect is especially striking given the scale of national investment in Gen AI, including the Pan-Canadian Artificial Intelligence Strategy and the Canada Digital Adoption Program, which explicitly aim to position Canada as a global leader in AI innovation (Government of Canada, 2024c). Despite a nationwide push to strengthen AI infrastructure and the goal to position Canada as a global leader, SME uptake has remained minimal. This pattern implies that the constraint is not solely technical or policy-based, but interpretive, shaped by whether available supports can be recognized, understood, and rendered meaningful by SME decision-makers. These interpretive perceptions shape whether Gen AI is understood as an opportunity, a threat, or background noise, and, in turn, whether leaders move beyond initial awareness toward experimentation and successful adoption (Farina & Lavazza, 2023; Peñalvo & Ingelmo, 2023; Van Es & Nguyen, 2025; Zavodna et al., 2024).

These implications extend beyond merely enhancing uptake, as non-adoption generates cumulative capability gaps that erode competitive positioning over time, even among

knowledge-intensive micro-firms with strong domain expertise (Brynjolfsson et al., 2021). This thesis examines how owner-operators of micro and small consulting firms in Alberta make sense of Gen AI under conditions of equivocality (meaning too many meanings, not the absence of meaning) and how these interpretations shape strategic choices that either protect or develop knowledge-based capabilities. The empirical core of the thesis is developed through three applied teaching cases: The Kiami Dilemma: Market Selection for an AI Solution in North America; The Billable Hour: Can AI Capture Intangible Value?; and Cratic AI: The Search for Product–Market Fit, each accompanied by an instructor manual designed to surface sensemaking dynamics and their strategic implications for knowledge-based capabilities. Together, these three cases connect the conceptual arguments developed in Chapters 1 and 2 to real-world decision situations, capturing first-hand owner-operator perspectives on Gen AI as it is encountered, interpreted, and acted upon within the constraints of everyday business. By examining distinct but comparable strategic dilemmas, the cases illuminate how abstract notions of AI value are translated into concrete choices under conditions of uncertainty, limited resources, and knowledge-dependence.

The "imagination gap," characterized as the space between Gen AI potential and the constructed reality within a firm's leadership, implies a mental disconnect for its successful application (McKay, 2025). If a leader's idea of reality does not fit their situation, they will not be able to use AI effectively (Tsoukas et al., 2020). Therefore, addressing this gap requires moving beyond adoption checklists that presume a single optimal pathway. Instead, it demands a close examination of how SME leaders actively construct the realities that render AI plausible or implausible, while treating AI as a strategic resource, prioritizing coherence and actionability over abstract accuracy.

1.1 The AI Definitional Landscape: From Familiar Tools to Categorical Confusion

For decades, businesses have integrated Traditional AI, Robotic Process Automation (RPA), machine learning (ML), and predictive analytics into their operations with a clear understanding of their purpose (Haenlein & Kaplan, 2019). These tools fit comfortably into existing mental models; they automate specific tasks, predict defined outcomes, and optimize measurable processes.

However, the sudden popularization of Gen AI has disrupted this trend. Unlike established AI that operates within prescribed boundaries, Gen AI creates novel content, engages in open-ended dialogue, and performs tasks that resist easy mental categorization (Banh & Strobel, 2023). When technologies offer multiple, often conflicting interpretations, organizations must actively interpret them to act; otherwise, even the most powerful tools may remain unused or be applied in ways that diminish their potential (Weick, 1995). Gen AI intensifies this challenge by offering no stable or predefined function, requiring users to determine what the technology *is* through interaction rather than through specification (Peñalvo & Ingelmo, 2023).

This ambiguity surrounding Gen AI is further intensified by increased media and market discourse that oscillates between idealistic promises of democratized intelligence and dystopian warnings of human obsolescence and irrelevance. Simultaneously, AI vendors routinely frame Gen AI as both "as simple as email" and a "revolutionary transformation," producing expectation confusion (Farina & Lavazza, 2023). Rather than resolving this ambiguity through open dialogue, many organizations experience a growing disconnect between formal decision-making and everyday practice, leading employees to engage in covert experimentation with ChatGPT while senior leaders continue to debate whether Gen AI is strategically relevant (Waters-Lynch et al., 2025). Amidst the increasingly loud media and market narratives, the relative silence

surrounding formal adoption decisions is striking, suggesting a quietness that warrants closer examination.

1.1.5 The Silence Barrier: Reluctance to Discuss Gen AI

Categorical confusion does not occur in a social vacuum. Emerging academic research documents a widespread reluctance to openly discuss Gen AI use, driven by anxiety (J. Li & Huang, 2020; Uğur & Dursun, 2025; Wang et al., 2024), fear of judgment, and perceived social stigma (BaHammam, 2025; Giray, 2024). In professional and academic contexts, individuals frequently conceal their actual level of AI engagement, either hiding their heavy reliance on AI (to avoid accusations of "cheating" or diminished expertise) or downplaying experimentation (to avoid appearing gullible or overly enthusiastic). This silence adds to the uncertainty surrounding AI. Without shared discussions, people cannot develop common examples and ideas to refer to or build upon. From a sensemaking perspective, meaning arises through shared narratives and enacted experiences; in their absence, organizations find it challenging to develop interpretations that are plausible enough to guide action (Weick, 1995).

These adoption statistics may be misleading. When 40% of Canadian firms report that Gen AI is "not relevant" to their operations, these responses may reflect not only genuine evaluations but also a socially safe preference for nondisclosure (Canadian Chamber of Commerce, 2024b). These responses may not only represent genuine assessments but also reflect a tendency towards socially safe nondisclosure. This hesitance to openly discuss actual AI engagement can obscure underlying interpretive uncertainties, making the adoption landscape seem more settled than it truly is.

Instead of enforcing academic definitions, this study employs a sensemaking perspective to explore how leaders create workable realities from ambiguity, emphasizing how meaning is

constructed through ongoing interpretation, social interaction, and action rather than being resolved through definitive clarity (Maitlis & Christianson, 2014). This approach acknowledges that a leader's constructed understanding is influenced by identity, experience, and organizational context, which serve as a powerful filter capable of amplifying, diminishing, or completely obscuring AI's true potential for the firm. In Chapters 4–6, different leaders understand Gen AI in separate ways. Some see it as unimportant, some think it is risky, and others find it useful for their strategies of what makes sense to them.

1.2 Theoretical Lens of Sensemaking

Weick's (1995) conceptualization of sensemaking has become highly influential in the study of organizational interpretation and action, with this perspective cited extensively in research on ambiguity, leadership, and strategic choice, reflecting its broad disciplinary uptake (Maitlis & Christianson, 2014). At its core, sensemaking is the process of reducing equivocality, which arises when events or technologies support multiple plausible interpretations (Weick, 1995).

This interpretive lens offers an alternative explanation for the paradox of Gen AI adoption. While frameworks such as the Technology-Organization-Environment (TOE) model and the Technology Acceptance Model (TAM) identify structural factors influencing adoption (organizational readiness, competitive pressure, perceived usefulness), they do not account for the interpretive processes through which leaders construct the meaning of AI. Divergence in leaders' interpretations of AI's potential is shaped by their past experiences, identity commitments, and the social context in which sensemaking occurs. Organizations prioritize AI enablers differently, even when operating within similar technological or environmental conditions, reinforcing that adoption outcomes emerge from the interaction of multiple factors

(Merhi & Harfouche, 2024). Sensemaking theory interprets why objective factors might go unnoticed and demonstrates how a leader's constructed reality can filter or block otherwise obvious facts about the AI environment.

Sensemaking is especially critical during periods of rapid technological change, when existing mental models fail to explain the continuous novel developments of Gen AI (Maitlis & Christianson, 2014). These interpretive difficulties are pronounced for SMEs that need to operate with limited resources and streamlined management structures (Carayannis et al., 2024).

Through retrospective enactment and a search for plausibility over accuracy, leaders construct realities that reduce equivocality to manageable levels (G. Kaur, 2023; Tsoukas et al., 2020; Weick, 1995). This mental process of resolving equivocality, rather than seeking an objective analysis of Gen AI features, ultimately provides an unexpected rationale for adoption or rejection. SME leaders often rely on quick, intuitive judgments rather than detailed, structured planning, making them more susceptible to pressure-driven adoption support strategies.

A sensemaking lens is essential for understanding how SME leaders interpret Gen AI. When external signals about AI are ambiguous or conflicting, leaders do not default to formal analytical evaluations. While entrepreneurial decision-making under uncertainty is often described through effectuation (Sarasvathy, 2001), where actors begin with their existing means and explore possible effects, the interpretive work observed in this study aligns more directly with sensemaking itself. Leaders draw on their "means at hand," but not in the goal-flexible, opportunity-generating- manner described by effectuation. Rather, they use these internal logics to stabilize their interpretations of AI's relevance. As a result, adoption outcomes are shaped less by objective resources or technological capabilities than by the interpretive frames through which leaders make sense of the AI environment.

1.3 The Gap: From Individual Interpretation to Strategic Action

Current industry reports on AI adoption focus heavily on structural barriers**,** cost, skills, and infrastructure; however, adoption rates remain low even when these barriers are addressed (Bryan et al., 2025; OECD, 2025; Statistics Canada, 2025a).

SME leaders collectively construct Gen AI as irrelevant or threatening; these interpretations aggregate through peer networks and institutional fields, solidifying into sector-level patterns of avoidance (Waters-Lynch et al., 2025). The resulting risk is systemic rather than isolated: not merely that individual firms forgo discrete opportunities, but that entire sectors fall behind as early adopters accumulate learning advantages that compound through continued use and capability development over time (R. Grant & Phene, 2022).

Accordingly, the central challenge shifts from increasing adoption to understanding the interpretation. When the majority of Canadian employer businesses may misinterpret a potentially transformative technology, the critical question becomes not “How do we increase adoption?” but “How do leaders construct meaning around AI, and with what strategic consequences?”

1.4 Research Questions

In this study, SME leaders are defined as owner-operators of micro-and small professional service firms (independent consultants) who make adoption decisions in the absence of dedicated IT teams, sophisticated analytics, or complex organizational structures. To investigate the relationship between SME leaders' sensemaking of AI and its implications for organizational knowledge capabilities, this study is guided by the following research questions:

1.4.1 Primary Research Question

How do independent consultants and micro-firm leaders understand AI's role in their businesses, and what are the implications for their knowledge-based competitive advantage?

This overarching question examines the interpretive processes through which SME leaders construct their understanding of AI and traces how these constructed realities shape their firms' capacity to develop and leverage knowledge assets in an increasingly Gen AI-enabled competitive environment. Of particular interest is how leaders' interpretations affect their approach to tacit knowledge, the experiential and intuitive insights that often represent SMEs' most valuable yet vulnerable competitive assets.

1.4.2 Secondary Research Questions

Following the primary research question, this study employs four secondary research questions to unpack the processes through which Gen AI becomes meaningful and actionable for organizational leaders. Consistent with a sensemaking perspective, these questions focus on the cues leaders attend to, the interpretive processes through which meanings stabilize over time, variations across decision contexts, and the strategic consequences that follow the decisions made. Together, they enable a process-oriented and comparative analysis of sensemaking under conditions of high ambiguity

1. Sensemaking Process (Interpretive Cues)

What interpretive resources, such as analogies, identity cues, and extracted signals, do SME leaders use to resolve the equivocality of Gen AI?

This question examines the microprocesses of meaning construction through which leaders render Gen AI intelligible. It investigates how leaders draw on analogical reasoning (e.g., Wes Paterson's comparison of AI adoption to "traffic circles" and grant dependency in Chapter

4), professional identity narratives (e.g., Llana McCowan's framing of AI as "binary" and incompatible with emotional judgment in Chapter 5), and market metaphors (e.g., Israel Beck's depiction of his product as a "motherboard" in a market that understands "pizza parties" in Chapter 6).

Following Weick's (1995) properties of sensemaking seen as identity construction, retrospection, and plausibility over accuracy, this question explores how leaders construct locally coherent interpretations of AI that allow for action despite ongoing uncertainty. It further draws on strategic sensemaking research, showing that leaders rely on identity-consistent cues and analogies when confronting novel technologies (Gioia & Chittipeddi, 1991; Kaplan, 2008).

2. Enactment–Selection–Retention (ESR) Dynamics

How do early enactments with Gen AI (or its avoidance) become selected and retained as stable organizational narratives that resist disconfirmation?

This question traces the temporal dynamics of sensemaking. It asks how Wes's initial encounters with "polite silence" from Canadian prospects stabilize into a retention of "Canada is slow" that persists despite contradictory data; how Llana's experiment with Copilot for emails becomes selected as "AI can only do binary tasks" and retained as a justification for avoiding billing automation; and how Israel's early pilot successes are retained as "the product works" even as market signals suggest category confusion. This captures the durability of interpretations once they are embedded in routines and identities.

3. Strategic Consequences:

What strategic actions (adoption, avoidance, pivoting, or persistence) emerge from these stabilized interpretations, and how do they construct a path forward?

This question connects sensemaking to strategic choice. Rather than asking about "knowledge capabilities," it examines how constructed realities translate into concrete strategic trajectories: Wes's consideration of a US pivot based on his retained interpretation of Canadian institutional voids; Llana's decision to maintain manual billing to preserve professional identity and CRA defensibility; and Israel's choice between educating the market versus abandoning his category-defining approach. This reveals that sensemaking is not merely cognitive but performative, literally creating the strategic environment that the leader navigates.

4. Contextual Variation:

How does the decision context in market selection (Case 1), operational workflow (Case 2), or product innovation (Case 3) shape the specific cues and plausibility structures that dominate sensemaking?

This cross-case comparison is used to specify which sensemaking properties dominate under different ambiguity types, rather than treating "AI ambiguity" as a single, undifferentiated construct. It acknowledges that while the sensemaking mechanism (ESR) is constant, the content of equivocality differs across contexts. Case 1 involves institutional legitimacy (grants, policy), Case 2 involves professional jurisdiction (tacit judgment), and Case 3 involves market category creation (product-market fit). By comparing these contexts, this study identifies which sensemaking properties (identity, social cues, and extracted cues) become most salient under different forms of ambiguity.

These questions work synergistically to reveal not only whether SMEs adopt AI, but also how the meanings they construct about AI shape their strategic possibilities. By examining sensemaking as the gateway to knowledge-based advantage, this study addresses both the theoretical gap in understanding pre-adoption interpretation and the practical challenge of the AI

adoption paradox. The findings contribute to sensemaking theory by exploring technology-triggered equivocality, extending the KBV (Knowledge Based View) to account for AI-augmented knowledge processes, and providing actionable insights for interventions that address interpretive rather than purely technical barriers to AI adoption.

1.5 Road Map

This manuscript is organized as a sandwich thesis, alternating between theoretical and empirical layers to build and apply conceptual arguments. Chapters 1 and 2 establish a conceptual foundation. Chapter 1 introduces the adoption paradox and sensemaking theory. Chapter 2 reviews the literature on AI adoption challenges, definitional ambiguity, and sensemaking processes (specifically, Weick's enactment–selection–retention cycle), identifying gaps that necessitate interpretive research. Chapter 3 outlines the qualitative methodology, explaining the three-case study design, participant selection, and analytical approach using deductive reasoning (sensemaking properties). Chapters 4–6 present three teaching cases that apply the theoretical framework to distinct decision-making contexts. Case 1 (Chapter 4): Wes Paterson's decision whether to pivot the Kiami AI platform from Canada to the US, illustrating institutional sensemaking under policy uncertainty. Case 2 (Chapter 5): Llana McCowan's choice regarding AI-assisted billing, illustrating professional identity and the limits of algorithmic judgment. Case 3 (Chapter 6): Israel Beck's search for product-market fit with Cratic AI, illustrating category sensemaking in an immature market. Each case includes a narrative and teaching note for classroom use and functions as primary data for theoretical arguments. Chapter 7 synthesizes the findings across the three cases, analyzing how different forms of equivocality trigger distinct sensemaking filters and tracing the strategic consequences of ESR processes in

this regard. Chapter 8 concludes by summarizing the contributions to sensemaking theory, practical implications for SME leaders and policymakers, and directions for future research.

Throughout this thesis, the central premise is that the AI adoption paradox cannot be resolved merely by analyzing structural variables. Instead, it needs a sustained focus on the interpretive processes through which leaders construct the meaning, relevance, and strategic implications of Gen AI within their specific organizational contexts. The subsequent literature review develops the theoretical vocabulary for this interpretive focus, introducing sensemaking theory and the ESR cycle as the primary analytical framework, before the empirical cases illustrate how these processes unfold in practice.

Chapter 2: Literature Review

This chapter synthesizes the theoretical concepts that form the analytical vocabulary used in the applied case chapters (market selection, billing reconstruction, and product–market fit). It proceeds through a structured progression: Section 2.1 outlines the AI adoption paradox that structural models cannot fully explain; Section 2.2 examines how definitional ambiguity generates equivocality and the imagination gap; Sections 2.3 and 2.4 introduce sensemaking theory and the ESR cycle as the core process mechanism; Section 2.5 explains how ESR stabilizes 'AI relevance' narratives; and Section 2.6 identifies the literature gaps and presents the exploratory framework that guides the three case studies.

2.1 The AI Adoption Paradox: Beyond Structural Explanations

AI adoption among Canadian SMEs not only shows a gap in uptake but also a gap in its interpretation. The central pattern in the literature is that many non-adopters do not openly reject Gen AI because they have evaluated it and found it lacking, but because they cannot form a plausible, firm-specific understanding of what it is and how it creates value for them (Maitlis & Christianson, 2014; Merhi & Harfouche, 2024). Thus, this thesis considers successful adoption, a result of meaning construction in the face of ambiguity rather than a logical constraint such as capital, skills, or infrastructure.

The effective use of AI is already occurring across SMEs, where technologies align with established processes and decision structures. Traditional AI applications, such as predictive analytics, recommendation systems, and robotic process automation, have been historically successfully integrated because their value propositions are concrete, bounded, and compatible with existing workflows (Haenlein & Kaplan, 2019; Kinkel et al., 2022).

For many years, traditional AI and its applications have been seamlessly integrated into existing businesses without the conflicts reported with the rise of Gen AI. However, this new AI has caused interpretive conflicts. SMEs are willing to adopt Gen AI when the value proposition is concrete and clearly connected to existing workflows, particularly in applications such as predictive analytics, recommendation systems and robotic process automation (Kinkel et al., 2022). Gen AI integration understanding improves when building off established processes rather than requiring fundamental changes to roles, routines, or decision rights, highlighting the importance of perceived fit and operational continuity (Polisetty et al., 2024). This pattern indicates that SMEs are neither technologically resistant nor incapable of integration; instead, their reluctance towards Gen AI calls for a more in-depth explanation of non-adoption (Schwaeke et al., 2025).

Diffusion theory establishes that when early technological adopters report strong value, their example should accelerate broader uptake through demonstration effects and social proof (Agarwal & Prasad, 1997; Rogers, 2003). Under this logic, the high satisfaction rates among firms already using Gen AI should catalyze rapid diffusion across the SME sector in the future. However, the current adoption patterns reported in Chapter 1 diverge sharply from this framework. Despite widely reported benefits, more than 40% of non-adopting SMEs continue to classify Gen AI as “not relevant” to their operations, a response that contradicts classical diffusion dynamics and suggests that the barrier is not simply a lack of exposure or measurable value (Canadian Chamber of Commerce, 2024b). This suggests that investigating structural or technological explanations is insufficient to describe the paradox. The absence of such situated understanding and perceived relevance is frequently dismissed, even when strong demonstration effects or observable performance gains are present (Merhi & Harfouche, 2024). In this view, the

adoption bottleneck arises not from weak value signals but from the meanings SME leaders assign to technology.

2.1.1 Interpretive Processes Preceding Adoption Decisions

This thesis considers TAM and TOE as robust, well-established models of technological adoption, rather than targets of criticism. Instead, it advances the argument that these frameworks implicitly assume that decision-makers approach adoption with coherent and comparable interpretations of the key decision variables. In the case of Gen AI, this foundational assumption of TAM and TOE frequently breaks down. SME leaders do not interpret "usefulness," "ease of use," or "relative advantage" as fixed attributes; instead, these meanings are actively constructed through identity commitments, social cues, and retrospective interpretations (Maitlis & Christianson, 2014). As a result, the interpretive work that shapes adoption occurs prior to evaluation, not during it. This means that leaders may filter or redefine technological attributes long before TAM or TOE variables become applicable, producing divergent interpretations even under identical structural conditions (Merhi & Harfouche, 2024). These pre-adoption sensemaking processes help explain why persistent non-adoption remains common, even when objective adoption conditions, such as affordability, availability, or proven benefits, appear favorable (Prasad Agrawal, 2024). One of its core limitation of Toe is the insufficient consideration of dynamic, pre-adoption interpretive processes, meaning that critical meaning-making activities occur before formal TOE variables become operative (Prakash, 2025).

For this reason, an interpretive theoretical lens is necessary: it reveals how meaning-making, rather than structural readiness alone, governs whether Gen AI becomes intelligible, relevant, or dismissed as inapplicable.

Because these frameworks are not designed to capture interpretive work, they cannot explain why organizations with similar resources and leadership support often reach different conclusions regarding AI adoption. Divergence in leaders' interpretations of AI's strategic potential varies widely, shaped by their past experiences, identity commitments, and the social context in which sensemaking occurs. The complications of AI adoption are shaped by multiple technological, organizational, and environmental enablers, suggesting that adoption outcomes arise from a complex interplay of factors (Merhi & Harfouche, 2024).

Sensemaking theory addresses this limitation by foregrounding the pre-adoption interpretive process, before TAM and TOE evaluation, and how leaders actively construct perceptions of emerging technologies under conditions of ambiguity, uncertainty, and competing narratives, rather than treating those perceptions as given inputs to adoption models (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015).

While the foundational TAM and TOE frameworks show that leaders evaluate technologies using relatively stable interpretations of usefulness, ease of use, and relative advantage, the sensemaking of Gen AI is constructed earlier through cognitive and interpretive processes embedded in leaders' operating environments. When these initial interpretations are formed under conditions of ambiguity, they can pre-empt or override the structural factors that traditional adoption models would predict to drive adoption. This interpretive dynamic helps explain why persistent patterns of paradox, misalignment, and non-adoption recur throughout the foundational academic literature, even in contexts where objective adoption conditions appear to be favorable.

2.1.2 Paradoxes in SME AI Adoption

A valuable starting point for understanding the paradox of Gen AI adoption can be found in Maitlis and Christianson's foundational work on sensemaking. Under conditions of ambiguity, leaders engage in sensemaking by favoring interpretations that provide coherence and enable ongoing action, even when those interpretations remain makeshift, partial, or subject to revision (Maitlis & Christianson, 2014). This creates a fundamental paradox between plausibility and accuracy, where people tend to favor narratives that "feel right" over those that require seeking informed or empirically validated understandings of the facts.

In the adoption of Gen AI among SMEs, a distinctive paradox emerges in which high perceived strategic potential coexists with limited organizational readiness. Although Gen AI is widely associated with opportunities to enhance resilience, efficiency, and competitive advantage by reducing skill, cost, and scale barriers, many SMEs lack the complementary capabilities or interpretive clarity required to operationalize these benefits at the point of adoption. Therefore, deficits in skills, data governance, and process maturity constrain effective uptake, producing a persistent potential–readiness paradox within the SME sector (Carayannis et al., 2024).

A related democratization depth paradox further illustrates this dynamic. While the affordability and accessibility of Gen AI offer SMEs unprecedented entry points into advanced capabilities, deeper organization-wide integration frequently stalls because of ongoing resource constraints and limited absorptive capacity (Kshetri et al., 2024). Simultaneously, both operational (e.g., creativity, research, and efficiency) and identity-based paradoxes highlight that while Gen AI promises speed and scale, it also raises concerns about diminishing originality, craft standards, and professional identity (Osadchaya et al., 2024). These tensions are especially

pronounced in knowledge-intensive SME contexts, where expertise and identity are central to the value creation.

What are often identified as barriers of cost, capability, or organizational culture are frequently downstream expressions of a more fundamental interpretive challenge. Before formal evaluation occurs, SME leaders struggle to reconcile Gen AI's abstract and generalized capabilities with the concrete operational demands, professional identities, and accountability structures that define their companies. When this reconciliation fails, positioning Gen AI as "not relevant" becomes a dominant, plausible, and defensible conclusion, even as empirical evidence of its potential value continues to accumulate. This interpretive bottleneck sets the conditions for the contrary adoption views and the imagination gap examined in the following section of this paper.

2.1.3 The Imagination Gap and Constructed Irrelevance

Reputable industry and policy reports further support this interpretation. McKay (2025) describes an "imagination gap," whereby many organizations struggle to translate the abstract capabilities of AI into firm-specific and actionable use cases. For SMEs, having limited experiential knowledge often constrains their ability to align AI applications with their industry context, development stage, and capability boundaries. Consequently, firms frequently conclude that AI does not fit their operational needs, framing non-adoption cautiously and risk-aware decisions rather than a failure to innovate (OECD, 2025). The multifaceted nature of Gen AI, which extends beyond a single-function tool, combined with numerous inconsistent public narratives, creates definitional ambiguity. This leaves leaders uncertain about what Gen AI truly is, let alone how it fits into their mental frameworks, thereby reinforcing their tendency to resolve this feeling of uncertainty through non-adoption acceptance (Peñalvo & Ingelmo, 2023).

These assessments point to the “imagination gap” as not a straightforward technical issue but rather a perspective one. When leaders struggle to envision a credible, context-specific application for Gen AI, they often resolve this uncertainty by deeming the technology to be irrelevant. This highlights the necessity of attempting to make sense of interpretive explanations over structural ones.

2.1.4 From Structural to Interpretive Explanations

The adoption paradox underscores that the divergent interpretations of identical technologies by individual SME leaders stem not from resource disparities but from definitional ambiguity and contested meanings (Lee et al., 2025). This can be exemplified with questions such as "How do we implement this?", which are secondary to a more fundamental issue: "What is this technology, and what does it mean for my organization?"

When adoption challenges primarily stem from leaders’ interpretations rather than objective resource constraints, traditional interventions such as funding, training, or infrastructure policies are often insufficient. Evidence from SME digitalization research shows that digital platforms and capabilities are not inherently performance-enhancing; rather, their value depends on how they are enacted by organizational leaders (North et al., 2019b). Identical technological capabilities can therefore yield divergent outcomes depending on whether leaders construct digital platforms as tools for experimentation and relational expansion or as mechanisms to reinforce established practices.

These divergent enactments point to a deeper interpretive problem that cannot be explained by differences in resources or capabilities. Instead, they reflect conditions of high definitional ambiguity, in which the nature, purpose, and implications of a technology remain unsettled and are open to multiple interpretations. In such contexts, leaders must engage in

sensemaking to determine what the technology is, what it means, and whether it fits within their organizational and professional frameworks. The following section examines definitional ambiguity as an interpretive challenge and explains how equivocality triggers sensemaking processes that shape leaders' judgments of relevance, risk, and strategic fit.

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2.2 Definitional Ambiguity as Interpretive Challenge

Definitional ambiguity is not background "noise," but an adoption barrier because it shifts evaluation from comparing technology attributes to interpreting contested meanings. With Gen AI, leaders often grapple with the uncertainty of whether its adoption serves merely as an incremental productivity tool for automating specific tasks or as a broader organizational capability focused on human-AI augmentation, affecting roles, risks, and identity. Research in the management field indicates that automation and augmentation are not easily separated; rather, they create a paradoxical tension that evolves over time and within various organizational contexts (Raisch & Krakowski, 2021). Under such conditions, adoption depends less on resolving definitional distinctions and more on how leaders construct a coherent and workable interpretation of AI's role within their organization (Van Es & Nguyen, 2025).

2.2.1 The Definitional Landscape Crisis

Gen AI produces a definitional crisis for SMEs because its capabilities span categories and only categorically materialize through prompting and embedded workflows. As a result, leaders are not assessing a bounded technology but constructing what Gen AI is for their firm. As Griffith (1999) explains category-spanning technologies resist established classifications, forcing decision-makers to engage in heightened interpretive work to determine appropriate use and value dynamics that align with Karl Weick's foundational conception of equivocal environments.

External environmental cues further intensify this ambiguity, as AI vendor sales narratives fluctuate between portraying Gen AI as an "easy adoption" tool and as a transformational capability. This creates confusion over whether adoption leads to incremental productivity gains or larger organizational changes. Social media messaging cycles between promises and fears, creating what could be called *"*expectation confusion*"* where SME leaders cannot discern whether Gen AI is merely a convenient assistant or a disruptive force that could reshape entire workflows (Farina & Lavazza, 2023). Human-like- labels such as *"*assistant*"* or *"*partner*"* blur categorical boundaries and inflate expectations, leading SMEs to misinterpret the technology as either trivial or transformational without a stable frame for evaluation (Van Es & Nguyen, 2025). These mixed signals make it harder for leaders to form clear judgments about GenAI's role, reinforcing the conditions under which uncertainty is resolved through non-adoption of the technology. Confusion stems not from technical barriers but from incomplete or inaccurate sensemaking. Without hands-on interaction and peer-supported learning, leaders misinterpret AI's capabilities and limitations, leading to hesitation, resistance, or avoidance (Ubellacker, 2025).

As the understanding of AI concepts remains unstable and continues to evolve, and as technological advancements outpace the comprehension and clarification of these perceptions, the gaps between technical, public, and practical interpretations are widening (Bianchini, 2025).

The definition of Gen AI cannot be limited to a single, clear-cut technical criterion. Instead, it encompasses various dimensions, such as multimodality, interaction, flexibility, and productivity, all of which defy categorization (Ronge et al., 2025).

Together, these arguments show that Gen AI does not present itself as a stable tool with clear, settled boundaries. Instead, leaders must actively decide what kind of thing Gen AI is for

their firm, shifting evaluation away from feature comparison toward meaning construction under the conditions of Weick's definition of equivocality.

2.2.2 From Clear Categories to Equivocality

SMEs have long succeeded with traditional AI technologies, such as predictive analytics, recommendation systems, and process automation, which operate within clear input/output boundaries and deliver well-defined measurable results (Haenlein & Kaplan, 2019). For example, an AI recommendation engine suggests products to customers based on their purchase history, whereas AI predictive maintenance software forecasts equipment failures from sensor data. These tools are treated as established business assets with fixed purposes and specifications that are easily comparable.

This helps to account for the variance among similar SMEs using comparable tools. Initial enactments can limit the perceived use-case space (e.g., "email drafting only") and restrict further exploration. This thesis uses sensemaking theory to study how such early interpretations form and stabilize the understanding of Gen AI.

This enactment perspective originates from Weick's (1995) account of sensemaking, where leaders construct the very environments they later perceive. Empirical studies show how initial AI encounters create an "evidence environment," leading to the use of Gen AI in simple and understandable ways, which improves understanding slowly (H. Kaur et al., 2022). Leaders subsequently treat these early enactments as diagnostic, but capabilities become salient or remain hidden depending on how users enact the technology within their routines, meaning that capability understanding is uneven and often hit or miss (L. Li et al., 2024).

Businesses already utilize traditional AI tools that effectively offer clear inputs and outputs. However, Gen AI presents a challenge for leaders because its capabilities are often

perceived through a mixed and unclear lens. This ambiguity can lead to poor implementation, even with slow trials and practice, shifting the paradox from external cues to internal reasoning.

2.2.3 Analogical Reasoning and Categorical Constraints

Leaders frequently manage Gen AI ambiguity by relying on simplifying analogies, framing it as "enhanced search," "advanced spellcheck," or an "email writer." Such analogical framing matters: recent reviews argue that the metaphors leaders deploy actively delimit and expand what becomes thinkable in organizational sensemaking interpretations (Whittle et al., 2023). This thesis considers these analogies as a mechanism that not only reduces uncertainty but also constrains the perceived opportunity space by yielding interpretations that are plausible, yet strategically limited.

2.2.4 Identity-Driven Interpretation

Identity commitments shape which interpretations of AI become acceptable within SMEs because leaders filter technological meaning through assumptions about "who we are" as a firm. In resource-constrained SME environments, leaders frequently rely on intuitive judgments and identity-consistent cues when assessing innovative technologies, making identity a central mechanism in the interpretation of equivocal technologies such as Gen AI. This dynamic is especially strong in small firms with limited infrastructure and compressed decision structures, where identity and experiential knowledge often substitute formal evaluation processes. Two core mechanisms are at play: first, the innovation posture of SMEs significantly influences whether Gen AI is perceived as a capability enhancer or as a disruption to established routines; second, leaders' commitment to maintaining operational stability leads them to favor interpretations that safeguard existing knowledge practices, especially when ambiguity is high (Carayannis et al., 2024). Identity construction acts as a dominant sensemaking filter, shaping

whether AI is interpreted as being legitimate and trustworthy. Identity-threatening interpretations, such as those that challenge professional jurisdiction, human touch, -touch value propositions, or expertise-based authority, can rationalize avoidance even in the presence of credible performance evidence (Gupta & Yang, 2024). Identity becomes a stabilizing force in sensemaking, shaping whether Gen AI is embraced as strategically compatible or dismissed as misaligned with the firm's self-concept.

2.2.5 Social Cues and Validation Gaps

Both the Diffusion of Innovations theory, which emphasizes that adoption depends heavily on peer networks and social validation (Rogers, 2003), and Weick's sensemaking theory, which highlights how actors look to social cues when reducing equivocality (Weick, 1995), rely on socially grounded mechanisms of interpretation. However, SME leaders often lack credible and comparable Gen AI implementation examples, and the absence of trusted peer cues under high ambiguity leads organizations to resolve uncertainty conservatively, making "wait and-and-see" and "not relevant" interpretations easier to sustain (Ubellacker, 2025).

Retrospective reasoning is intricately linked to analogies, as demonstrated when leaders use previous software adoption templates. For example, when Gen AI is simply categorized as an "email drafting tool," there is a risk of overlooking the organizational changes required for its comprehensive implementation, as analogical guidance can limit the perceived range of use cases. These retrospective analogies can provide quick interpretive stability (Fjader, 2021), but using such shortcuts can also confine firms to low-ambition frameworks; they may restrain future experimentation by making the initially implemented capabilities appear to be the full extent of what Gen AI can achieve (Sandberg & Tsoukas, 2015).

Gaps in social validation and the reliance on analogical shortcuts create precisely the interpretive conditions under which a sensemaking lens becomes necessary to explain how SME leaders construct and often constrain the meaning of Gen AI.

2.2.6 The Need for Sensemaking Theory

Traditional technology adoption frameworks, such as the TAM and TOE, assume that technologies are relatively stable and that their usefulness can be evaluated prior to adoption decisions. Within these models, constructs such as usefulness, ease of use, and organizational readiness are treated as latent variables, while variations in interpretation are relegated to unexplained residual noise rather than examined as a focal process. Recent AI adoption research has explicitly identified this limitation, noting that leaders' interpretive differences are left untheorized and that perceptions of usefulness are implicitly assumed to pre-exist adoption rather than being actively constructed (Baker, 2012; Merhi & Harfouche, 2024; Schwaeke et al., 2025).

This assumption is particularly problematic in the context of Gen AI. As a "concept in progress," Gen AI lacks stable boundaries and a settled consensus regarding its organizational role, resulting in persistent definitional ambiguity (Bianchini, 2025; Ronge et al., 2025). Under such conditions, usefulness cannot be treated as a fixed attribute of technology; instead, it emerges through repeated interpretation as users experiment, compare analogies, and revise their understanding over time.

Sensemaking theory addresses this gap by shifting the analytical focus away from the static predictors of adoption and toward the interpretive processes through which meaning is constructed under ambiguity (Weick, 1995, 2012, 2020; Weick et al., 2005).

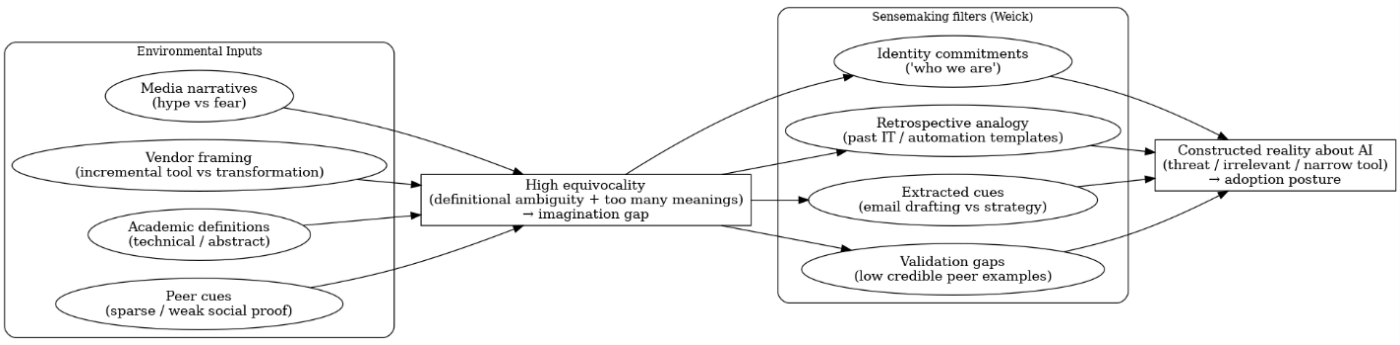
What matters is which meanings are selected and stabilized to enable the action. Effective AI use depends less on exhaustive technical understanding and more on interpretive alignment

with users' goals, identities and situational constraints. This aligns with Weick's enactment–selection–retention framework, which emphasizes that outcomes are shaped by selected interpretations rather than by objective properties alone.

Figure 1 visualizes this sensemaking process, illustrating how environmental inputs surrounding Gen AI produce high equivocality, which is then filtered through identity commitments, extracted cues, retrospective analogies and validation gaps. These filters shape the constructed reality of AI, whether it is understood as a threat, an irrelevant tool, or a viable strategic resource, thereby influencing the paradox of adoption.

Figure 1

Environmental Inputs, Equivocality, and Sensemaking Filters Shaping Constructed AI Relevance



Note. This figure summarizes how environmental inputs (media narratives, vendor framing, academic definitions, and peer cues) create Gen AI equivocality and how leaders' sensemaking filters shape the constructed reality of AI relevance that drives adoption posture.

Within a sensemaking framework, meanings are shaped through the interaction of identity, extracted cues, and social interactions. These processes explain why Gen AI adoption

among SMEs cannot be adequately understood through structural predictors alone and instead requires attention to how meanings are actively constructed, contested, and revised in context.

2.3 Sensemaking Theory: Understanding Interpretive Processes

This thesis positions sensemaking theory not as a competitor to established adoption frameworks like the Technology Acceptance Model (TAM) or the Technology-Organization-Environment (TOE) model, but rather as a complementary, process-based perspective that sheds light on an earlier stage these models overlook. While TAM and TOE identify structural and attitudinal factors that predict adoption, sensemaking theory clarifies the interpretive work that makes these factors prominent, meaningful, or invisible to decision-makers initially. Thus, the contribution of this thesis lies in tracing the pre-adoption interpretive processes, specifically how equivocality is reduced (or maintained) through enactment, selection, and retention that shape the conditions under which structural models become explanatory. This framing guides the theoretical progression that follows: Section 2.3 introduces the sensemaking properties that serve as analytical codes; Section 2.4 presents the ESR cycle as the process mechanism through which interpretations stabilize; and Section 2.5 links these micro-level dynamics to knowledge-based strategic consequences.

The previously discussed focus on the interpretive challenges of AI underscores the limitations of established, traditional adoption models. Consequently, a different approach is necessary to understand how leaders navigate uncertainty. This section establishes sensemaking theory as the primary analytical lens for examining how SME leaders construct actionable understanding from AI's complex and often contradictory signals of AI.

2.3.1 Sensemaking Foundations and AI Relevance

At its essence, sensemaking theory explains how individuals actively construct meaning, making it an ideal lens for studying how SME leaders approach a complex and ambiguous technology such as Gen AI.

Therefore, evaluating Gen AI in SMEs is more associated with uncertainty than with quantifiable risk, as leaders rarely possess stable probabilities, comparable benchmarks, or clearly bounded outcome distributions. Under such conditions, decision-making relies less on formal calculations and more on narrative plausibility, social validation, and iterative interpretation, positioning sensemaking as a critical lens for understanding AI pre-adoption dynamics (Engström et al., 2024).

The meanings associated with Gen AI are not formed in isolation by individual decision-makers; rather, they emerge through continuous interaction with organizational routines, institutional expectations, and broader field-level narratives. This evolution conceptualizes sensemaking as a multilevel, co-evolutionary process, where individual interpretations interact recursively with organizational and field-level dynamics (Cristofaro, 2022).

Leaders do not simply react to ambiguity; they actively construct and shape the meaning that guides organizational action. Research on strategic change shows that leaders first engage in sensemaking and interpreting uncertain conditions and then move into sense giving, influencing how others understand the situation to align action around a preferred narrative (Gioia & Chittipeddi, 1991).

The categorical novelty and rapid diffusion of Gen AI intensify these dynamics, compelling SME leaders to engage in sustained meaning-construction efforts that ultimately

determine whether the technology is interpreted as an opportunity, a threat, or irrelevant to their strategic context.

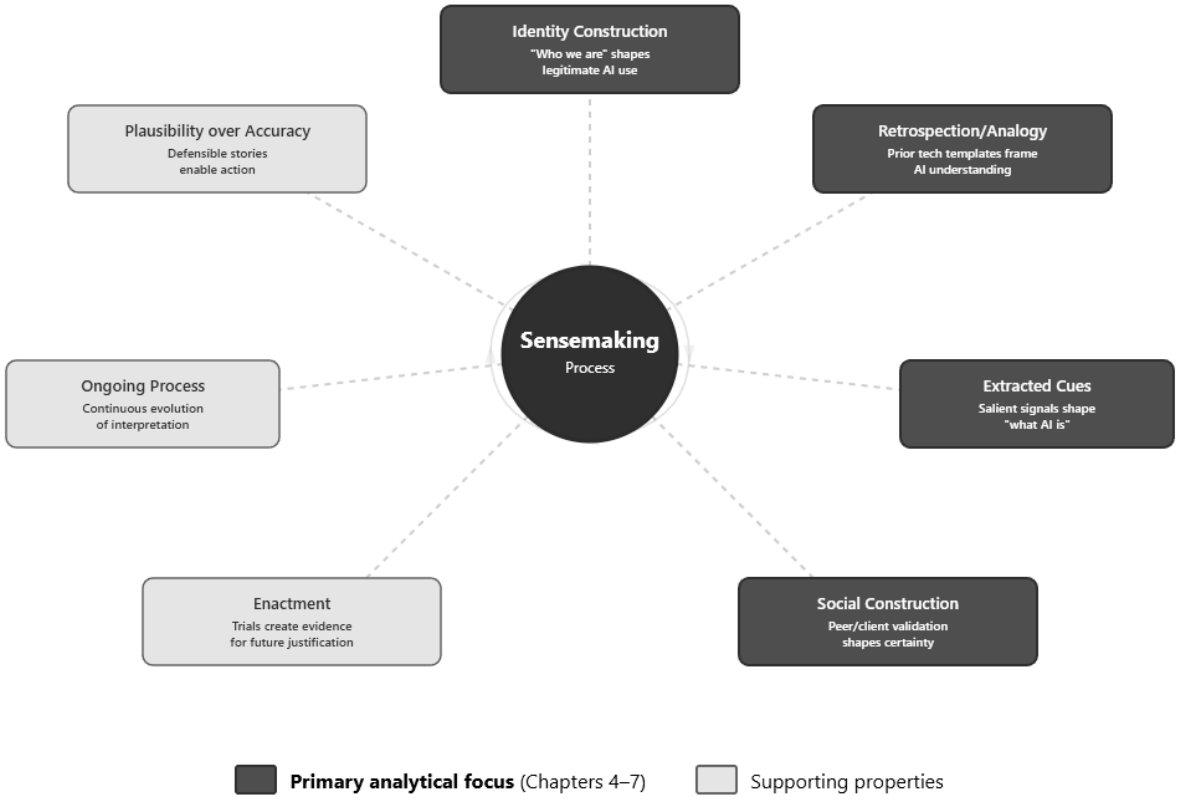
2.3.2 Core Properties of Sensemaking

Weick's sensemaking framework has shown remarkable resilience over the years and has remained a cornerstone of organizational studies for more than five decades. Its ongoing relevance and scholarly endorsement are evident in the sustained theoretical engagement and contemporary reinterpretation it receives, rather than being replaced, as noted in the commemorative reflections of the original framework (Tsoukas et al., 2020).

Weick (1995) identified seven interconnected properties that characterize sensemaking processes across organizational contexts, providing analytical frameworks for examining how SME leaders construct AI understanding. For this thesis, the value of the seven properties is not descriptive completeness; rather, it is used as analytical leverage. They specify where to look for variation in AI interpretations across SMEs (identity stakes, retrospective analogies, social validation, and extracted cues) and therefore inform both interview prompts and coding logic.

Figure 2

Weick's Seven Properties of Sensemaking Used as Sensitizing Concepts for This Thesis



Note. This figure summarizes Weick's seven properties of sensemaking as they are used in this thesis to identify where AI interpretations are likely to diverge and stabilize, with an emphasis on identity construction, retrospection/analogy, extracted cues, and social validation.

Operationally, they guide what is coded and compared across cases: Identity construction: how leaders define "who we are" and what forms of work must remain human, shaping what counts as legitimate AI use (Ametefe et al., 2025; Gupta & Yang, 2024)**.** Retrospection (including analogy): how prior technology templates are imported to make Gen AI intelligible, often narrowing the perceived opportunity space (Sandberg & Tsoukas, 2015). Enactment: how early trials (or refusals to trial) produce the "evidence environment" used later to justify a stance

(Tsoukas et al., 2020). Social construction: How peers, clients, and institutions supply (or fail to supply) validation cues under uncertainty (Ubellacker, 2025). The strong ties between sensemaking and identity suggest that 'who we are' shapes which AI concepts and meanings become acceptable (Brown et al., 2015; Gupta & Yang, 2024). Ongoing process: How interpretations change as tools, discourse, and constraints shift (Peñalvo & Ingelmo, 2023). Extracted cues: which signals become salient and which are ignored, shaping "what AI is" in the firm (W. Li et al., 2024). Plausibility over accuracy: How defensible stories enable action (or delay) without exhaustive evaluation. Figure 2 provides a visual summary of these characteristics. Chapters 4–7 emphasize identity, retrospection/analogy, extracted cues, and social validation because they most directly differentiate how "AI relevance" is constructed under equivocality.

2.3.3 Technology-Triggered Sensemaking

In SMEs, technology sensemaking occurs under tighter time, expertise, and governance constraints than in large companies. Small businesses rely heavily on the owner-operator's judgment and experiential knowledge when assessing innovative technologies, reflecting compressed decision cycles and limited organizational slack (Thong, 1999). Under such conditions, sensemaking often proceeds through analogical reasoning, as leaders interpret innovative technologies by mapping them onto familiar tools and past experiences (Fjader, 2021). Professional identity and role expectations further shape which cues are noticed and considered legitimate, privileging interpretations that align with existing expertise and self-conceptions (Ametefe et al., 2025). In the absence of formal evaluation structures, peer examples and ecosystem signals become salient reference points, influencing the perceived plausibility or riskiness of AI use within the local business context (Carayannis et al., 2024). These heuristics

can accelerate action under constraints; they may also narrow the perceived use-case space, limiting experimentation beyond immediately intelligible or identity-consistent applications (Gupta & Yang, 2024).

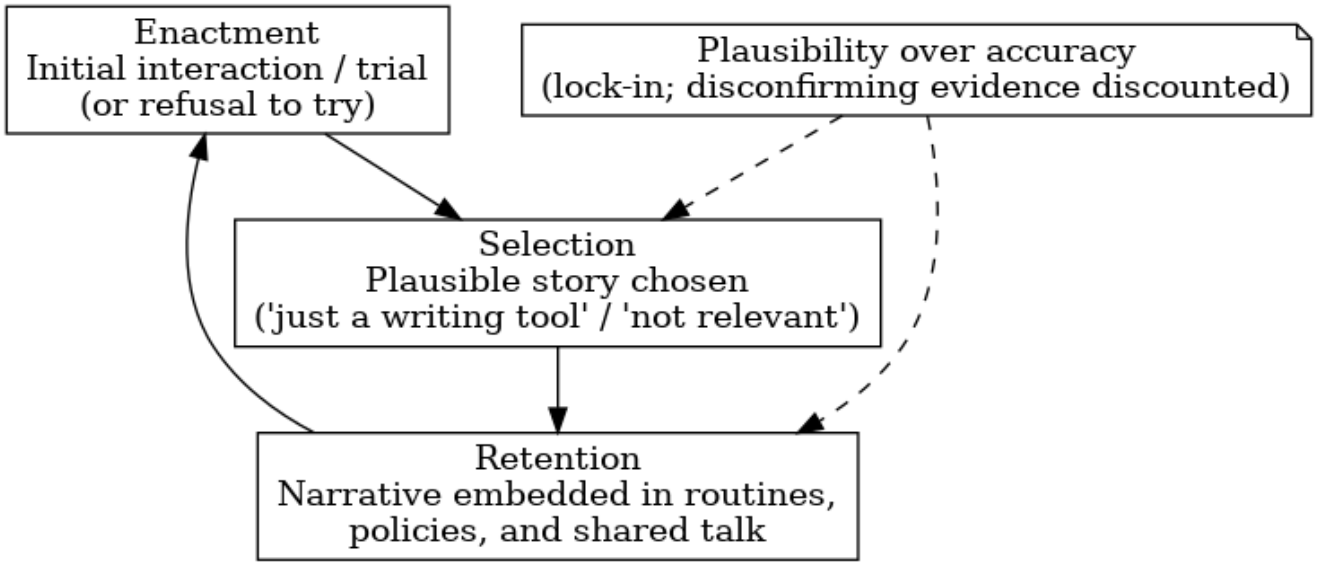
With sensemaking triggered, the next section introduces how enactment–selection–retention models AI relevance interpretations to stabilize and shape strategic action.

2.4 The ESR Cycle: How Interpretations Stabilize

This thesis uses ESR to explain divergence under similar conditions: (1) enactment, what leaders actually try first (or refuse to try); (2) selection, which interpretation becomes "the story" about AI in the firm; and (3) retention, how that story is embedded in routines and becomes harder to disconfirm. ESR is used here as a process account of how "not relevant" judgments can emerge and persist (lock-in) even when external evidence suggests value (Tsoukas et al., 2020; Weick, 1995).

Figure 3

Enactment–Selection–Retention (ESR) Cycle and Plausibility-Based Lock-In



Note. This figure depicts the ESR cycle as used in this thesis, illustrating how initial enactments shape the selection of a plausible narrative and how that narrative becomes retained through routines, policies, and shared talk, even when disconfirming evidence is available

The enactment–selection–retention (ESR) cycle is critical because it treats persistence not as a one-time interpretation but as an ongoing process through which early understandings are reinforced over time. In ambiguous situations, leaders' initial actions narrow the range of perceived possibilities by privileging certain use cases while excluding others, effectively constraining subsequent exploration (Tsoukas et al., 2020). As these limited experiences are repeatedly enacted, they are shaped into coherent narratives about what Gen AI is and is not, which then become embedded in routines and decision rules, making alternative interpretations increasingly difficult to surface or sustain (H. Kaur et al., 2022). By following this framework,

perceptions can be shaped such that "not relevant" becomes a stabilized outcome. This is achieved through enacted experience and retained practice rather than merely a lack of awareness of the facts.

The enactment phase is critical because it is the moment at which abstract interpretations are converted into concrete experiences. Early enactment often takes the form of experimentation and low-risk trials intended to reduce uncertainty and mitigate the perceived risks (Damayanti & Atmoko, 2023). Weick emphasizes that enactment does not merely test pre-existing beliefs; it actively shapes the environment to which organizations respond. The actions taken during this phase generate the cues that later interpretations are built upon, meaning that early trials can disproportionately influence how Gen AI is understood, evaluated, and either expanded or abandoned.

During selection, early encounters with AI are interpreted through existing cognitive frames and identity commitments, leading decision-makers to favor explanations that are plausible and actionable rather than analytically precise when determining whether and how AI should be integrated into operations (Ubellacker, 2025). Selection does not involve pinpointing the most accurate interpretation but rather choosing meanings that enable coordinated action to persist amid uncertainty, even when other interpretations remain viable (Weick, 1995).

Retention occurs when these interpretations are reinforced and stabilized through routines, training practices, and organizational narratives, shaping how AI is approached in subsequent decisions and limiting the range of future interpretations considered viable (R. Grant & Phene, 2022). Retention ensures durability by embedding interpretations into structures and practices, allowing earlier meanings to persist and guide future actions, even as conditions evolve (Weick, 1995).

Integrating the ESR cycle into the theoretical framework of this study provides a process-based explanation for the AI adoption paradox observed among SMEs. While established models such as the TOE and TAM identify structural and perceptual factors that condition adoption decisions (Schwaeke et al., 2025), they offer limited insight into how these factors are interpreted, enacted, and stabilized over time. ESR complements these models by explaining how the constructed realities of leaders shape the persistence of adoption or non-adoption through repeated cycles of action and interpretation.

It is critical to differentiate the ESR cycle from related concepts like reinforcement loops and rigidity cycles, which, although seemingly similar, operate at a different explanatory level. Reinforcement loops, as discussed in the competency trap (Levitt & March, 1988) and core rigidity (Leonard-Barton, 1992) literatures, illustrate how existing beliefs, routines, and competencies become self-reinforcing over time, highlighting the persistence and stability of established patterns. These accounts typically start with an existing interpretation or practice and trace its deepening entrenchment. In contrast, the ESR cycle offers a process account of how these interpretations are initially formed and then stabilized through iterative interaction with the environment. It captures the upstream moment where enactment generates the raw material of experience, selection identifies the plausible narrative, and retention embeds it that produces the very beliefs reinforcement loops then perpetuate. This thesis, therefore, uses ESR to explain how "AI is not relevant" becomes a coherent organizational interpretation initially, before it becomes self-reinforcing through the mechanisms described in the rigidity literature. This distinction is critical to the thesis's contribution: by focusing on the formation stage, the analysis identifies intervention points that would remain invisible if lock-in were considered solely a downstream phenomenon.

2.4.1 ESR as Lock-In Mechanism

The ESR cycle reveals why initial interpretations of AI can endure even when conflicting evidence arises. When initial enactments facilitate learning and experimentation, these interpretations can aid in building capabilities and stabilizing adoption over time (H. Kaur et al., 2022). However, the same dynamics can also produce interpretive lock-in when early enactments are narrow or defensive, and selected meanings become embedded in routines, decision rules, and identity narratives, constraining how subsequent information is interpreted and reinforcing path-dependent patterns of action (Levitt & March, 1988).

The phenomenon of enactment lock-in becomes apparent when leaders create an environment that reinforces their initial interpretations. For example, if a leader adopts AI solely for "email drafting" (Selection) and continues to view "AI as merely a writing tool," then future opportunities to use AI strategically are dismissed as being relevant only to writing and are considered unsuitable for other purposes. This illustrates the persistence of "constructed irrelevance," which is not simply due to ignorance but is an ongoing process of sensemaking and ESR that actively obscures new signals.

The critical implication of this thesis is that ESR transcends simple cognition; the enactments leaders choose or avoid shape the use cases they justify. This selection crafts a firm-level narrative about what AI "is" and retention embeds that narrative into routines and governance. Once locked in, AI is perceived either as a defensive measure (posing a threat to knowledge assets) or as an augmentation (serving as a capability amplifier), leading to the KBV consequences discussed in Section 2.5.

2.5 From Individual Tacit Knowledge to Misalignment to Systemic Risk

Lock-in often begins with cautious, low-commitment interactions with Gen AI, particularly in resource-constrained SME. These early encounters are frequently filtered through existing professional identities and practical constraints, shaping how technology is first understood and evaluated (Schwaeke et al., 2025). As a result, initial experimentation may frame Gen AI as irrelevant to core work or as a potential threat to established expertise, even when broader objectives exist.

This dynamic is especially pronounced among knowledge-intensive independent consultants, whose competitive advantage lies in deeply contextual and tacit forms of expertise.

Tacit knowledge is embedded in actions, procedures, routines, ideals, values, and emotions at the embodied end of the tacit-explicit continuum, where it cannot be fully systematized. Moreover, converting tacit knowledge into explicit forms through Gen AI involves uncertainty and potential conflicts (Nonaka & von Krogh, 2009). Because this tacit knowledge forms the basis of consultants' competitive advantage and professional legitimacy, they may resist engagement when they perceive the technology as threatening this knowledge base (Leonard & Swap, 2004).

Within the ESR cycle, these early defensive interpretations can become entrenched. Once selected, narrow understandings of Gen AI are reinforced through routines, tool choices, and habitual ways of working, thus reducing the likelihood of further experimentation. This pattern is consistent with longstanding research on defensive routines, which shows how organizations and professionals avoid learning when new practices challenge their existing assumptions or self-concepts (Argyris, 1993).

Taken together, these dynamics suggest that lock-in around AI is not driven by ignorance or resistance to innovation, but by sensemaking under constraints. Early cautious enactments

shaped by professional identity, limited resources, and the protection of tacit expertise can narrow how AI is understood and applied. Through the ESR process, these interpretations may lock into stable patterns of non-use or constrained use. For knowledge-intensive consultants, whose competitive advantage depends on context-specific tacit knowledge, such lock-in can entrench defensive or status-quo interpretations, inhibiting the iterative experimentation needed to construct actionable relevance and to develop hybrid human–AI capabilities.

2.5.1 How Defensive Sensemaking Scales

SME leaders' initial reluctance to adopt generative AI is not a simple failure of judgment but can be understood as a plausible and defensible response to high uncertainty and constrained resources. Sensemaking theory posits that when actors face novel, ambiguous situations, they prioritize interpretations that are plausible and identity-consistent over those that may be more accurate but less coherent with their existing frameworks (Weick et al., 2005). For SMEs operating under critical time pressure, financial constraints, and limited technical expertise, cautious or deferred engagement with AI represents a rational strategy to protect scarce knowledge assets and maintain operational stability (Baker, 2012).

However, this initial stance can crystallize into a persistent barrier through the ESR process. Early encounters, such as a pilot project perceived as misaligned with professional identity or exposure to conflicting market narratives, shape initial interpretations (enactment). Leaders then select the most plausible narrative that reduces anxiety and preserves their identity, often one that frames AI as irrelevant or threatening (selection). Once selected, this interpretation becomes embedded in routines, decision rules, and organizational discussions, making it resistant to change (retention) (Cristofaro, 2022). This retention reduces interpretive flexibility, causing

leaders to filter out subsequent disconfirming evidence and treat ambiguity as having already been resolved.

Furthermore, sensemaking is inherently social in nature. These individually stabilized frames are amplified and legitimized through peer observation and institutional norms. Diffusion of innovations theory shows that under uncertainty, organizations rely heavily on the behavior of similar others as a heuristic for appropriate actions (Rogers, 2003). As non-adoption becomes normalized within a reference group, it gains legitimacy through mimetic and normative pressures, reinforcing shared interpretations of which technologies are deemed relevant or appropriate. AI-related decisions are heavily influenced by social norms, and deviating from these perceived norms, whether established by peers or supervisors, leads to regret, thereby reinforcing conformity in AI adoption behavior (Kornowicz et al., 2025). What begins as an individual interpretive stance solidifies into a collective norm.

The systemic consequence of this cycle is an amplified interpretive failure. Innovation research underscores that sustained experimentation and learning-by-doing are critical for building technological capabilities (Warner & Wäger, 2021). When a critical mass of SMEs enacts and retains a collective "wait-and-see" narrative, the entire sector under-invests in these essential learning processes. This creates persistent capability gaps and systemic competitive vulnerability as early adopters elsewhere accumulate knowledge and advantages (R. Grant & Phene, 2022). Thus, the sensemaking process, initially a tool for coping with uncertainty, can systematically constrain exploration and weaken long-term competitive positioning at the sectoral or regional level (Cristofaro, 2022).

2.5.2 Policy Investment and Interpretive Disconnect

The systemic implications become starkly apparent when considered against substantial public investment in Gen AI development and supporting adoption. Traditional policy frameworks, rooted in the foundational work of Arrow (1962) and Nelson (1959)**,** assume that businesses will recognize and pursue Gen AI opportunities once technical and financial barriers are lowered. However, this long-standing view is now being challenged, as recent analyses indicate that interpretive barriers can blunt the effectiveness of traditional policies. In Canada, McKay (2025) argues that a pervasive "imagination gap" prevents many firms, especially SMEs, from seeing Gen AI as relevant or beneficial, while an OECD report by Kergroach and Héritier (2025), documents persistent adoption gaps despite continued policy efforts to expand skills, infrastructure, and enabling regulation.

This expectation for traditional explanatory frameworks creates a disconnect that challenges the foundational assumptions of innovation economics. Romer's (1990) endogenous growth model highlights how knowledge spillovers drive economic progress through rational firm-level adoption decisions, while Solow (1957) assumed that profitable technological opportunities would be taken up when available. A sensemaking perspective complicates these models by showing how interpretive failures can systematically obstruct opportunity recognition, even when objective conditions favor adoption. As a result, knowledge spillovers may fail to materialize precisely when Gen AI capabilities could otherwise amplify learning, diffusion, and productivity gains.

As a result, policy efforts risk underperforming not because AI capabilities are lacking, but because many SME leaders struggle to translate those capabilities into relevant situations.

This imagination gap between technological potential and a contextualized vision emerges as a central constraint on effective adoption (McKay, 2025).

2.5.3 The Scaling of Economic Vulnerability

When interpretive frameworks that emphasize the protection of existing knowledge assets over capability development diffuse across firms, localized risk begins to scale beyond the organization itself. As similar sensemaking patterns replicate across peer networks and sectors, individual delays in technology engagement aggregate into broader economic vulnerabilities. In such contexts, prolonged non-adoption can generate knowledge blind spots that weaken collective learning, experimentation, and innovation capacity (Waters-Lynch et al., 2025). As international competitors develop AI-enhanced knowledge capabilities, regions with high concentrations of non-adopting SMEs risk systematic competitive erosion across multiple industry sectors.

The protective interpretations of SME leaders reflect valid concerns about preserving knowledge assets and maintaining organizational autonomy, making non-adoption appear strategically sound from the perspective of a single firm (Ametefe et al., 2025). When these interpretive patterns are replicated across economic sectors, they generate collective vulnerabilities that no single organization can address using isolated strategies.

The opportunity for productive sensemaking reframing is time-bound rather than indefinitely available, as interpretations formed early shape subsequent learning trajectories. From a knowledge-based perspective, early adopters accumulate tacit, experience-based understanding of effective human–AI collaboration that cannot be easily codified or transferred, creating path dependencies that compound competitive advantages over time (R. Grant & Phene, 2022). When AI is integrated into SME decision-making frameworks, organizations develop

learning curves tied to repeated use and contextual adaptation, making late adoption increasingly complex and strategically demanding. As human–AI collaboration becomes normalized within competitive environments, the interpretive and capability gaps facing late adopters widen, raising the cost of reframing and reducing the feasibility of catching up through isolated or incremental adoption efforts (Ahmad et al., 2024).

2.5.4 The Scaling of Interpretive Barriers

This interpretive and competitive analysis gains urgency when situated within the scale of SMEs' economic contribution to Canada. SME enterprises constitute the vast majority of employer businesses and employ millions of Canadians, positioning their strategic behavior as a matter of national importance rather than an isolated firm-level concern (Innovation Science and Economic Development Canada, 2025). At this scale, the cumulative effects of defensive sensemaking generate macro-level consequences for productivity, innovation, and resilience. What appears rational and prudent within individual firms, deferring adoption, protecting expertise, or awaiting clearer signals, can, when aggregated across thousands of organizations, combine into systemic vulnerabilities that no single firm can address independently.

Across SMEs, leaders frequently filter the relevance of generative AI through professional identity commitments and established role conceptions, constructing locally plausible interpretations that preserve their jurisdiction and expertise (Ametefe et al., 2025; Gupta & Yang, 2024). While such identity protection may be strategically coherent at the individual level, its replication across large numbers of independent consultants and micro-firm owners produces sector-wide capability stagnation. In aggregate, this limits the development of AI-augmented knowledge practices that could otherwise contribute to national productivity growth (Carayannis et al., 2024). Similarly, leaders' reliance on retrospective analogies and simplifying metaphors -

as calculators, traffic systems, or email tools to reduce generative AI equivocality provides immediate interpretive stability but compresses the perceived space of potential applications (Sandberg & Tsoukas, 2015; Whittle et al., 2023). When these shortcuts are widely shared, they systematically narrow the national "imagination space" for AI use, constraining experimentation and slowing the discovery of productivity-enhancing implementations (McKay, 2025).

In the absence of credible peer exemplars, many SME leaders conservatively resolve ambiguity by adopting "wait-and-see" interpretations (Rogers, 2003; Ubellacker, 2025). At scale, the scarcity of visible adoption creates self-reinforcing legitimacy deficits: non-adoption becomes normalized through mimetic and normative pressures, reinforcing coordination failures in which individually rational caution yields collectively suboptimal underinvestment (Kornowicz et al., 2025). These dynamics are further stabilized through enactment–selection–retention cycles, as early cautious enactments or outright avoidance, are selected and retained as stable organizational narratives that resist disconfirmation (Tsoukas et al., 2020). When repeated across the SME sector, such micro-level path dependencies accumulate into macro-structural inertia, embedding interpretations of "AI as irrelevant" or "AI as threat" into routines, governance structures, and strategic assumptions, and widening productivity gaps relative to more adaptive economies (R. Grant & Phene, 2022; Schwaeke et al., 2025).

When a substantial proportion of SMEs classify generative AI as "not relevant," the result is a market-wide failure of opportunity recognition that cannot be resolved solely through funding, skills programs, or infrastructure investment (North et al., 2019a). At this scale, traditionally used economic theories are constrained by individual defensive interpretations, which block the knowledge spillovers that endogenous growth theories identify as catalysts for economic progress (Arrow, 1962; Nelson, 1959; Romer, 1990; Solow, 1957). Protective

interpretations of tacit knowledge further reinforce this pattern, as AI is framed as a threat rather than a complement to expertise, justifying avoidance even in the presence of credible performance evidence (Argyris, 1993; Leonard & Swap, 2004; Nonaka & von Krogh, 2009). Sector-wide retention of manual, judgment-intensive practices slows operational learning and capability development, increasing vulnerability in knowledge-intensive industries, with implications for trade performance, employment quality, and regional resilience (Ahmad et al., 2024; R. Grant & Phene, 2022).

These dynamics illustrate how individually reasonable sensemaking under uncertainty produces collectively adverse economic outcomes when scaled across Canada's SME sectors. Micro-level decisions, such as deferring adoption, relying on analogies, waiting for validation, or embedding defensive narratives, appear strategically coherent in isolation. However, in aggregate, they contribute to stagnant knowledge creation as expertise remains uncodified (R. M. Grant, 1996), weakened institutional memory as tacit knowledge exits with experienced workers (DeLong, 2004), constrained learning as defensive ESR cycles limit experimentation (Cristofaro, 2022; H. Kaur et al., 2022), and growing competitive vulnerability as international rivals enhance their capabilities (Warner & Wäger, 2021).

Systemic risk arises from failures in coordinated interpretation. Individually, sensemaking focuses on seeking plausibility, protecting identity, and awaiting legitimacy, which culminates in a macroeconomic reality characterized by stalled productivity, chronic underinvestment, and diminishing competitiveness. Consequently, Canada's significant public investment in AI is threatened not by a lack of technology or capital but by the unaddressed interpretive infrastructure within its most vital economic sector.

2.6 Literature Gaps and Exploratory Framework

The theoretical exploration above, documenting the adoption paradox, definitional ambiguity, and sensemaking processes, uncovers three critical gaps that necessitate this study's approach to understanding resistance to Gen AI adoption.

2.6.1 Gap 1: Mechanism Behind Imagination Gaps

While McKay (2025) identifies the "imagination gap" as a barrier to AI adoption, empirical research has paid limited attention to the sensemaking mechanisms through which such gaps are produced and sustained. Prior work has not systematically examined how enactment, selection, and retention processes interact to stabilize interpretations of AI as "not relevant" or "not applicable," even in the presence of external signals or peer evidence suggesting potential value.

2.6.2 Gap 2: Contextual Specificity of Equivocality

Prior studies have treated "AI ambiguity" as one type. This study addresses how several types of equivocality (institutional, professional, and categorical) trigger distinct sensemaking filters and cue extraction patterns. The literature lacks a comparative analysis of how sensemaking operates across these distinct decision-making contexts within SMEs.

2.6.3 Gap 3: From Micro-Interpretation to Strategic Trajectory

While sensemaking theory accounts for how meanings are formed under ambiguity, it offers limited guidance on how stabilized interpretations become embedded in concrete strategic trajectories. This study demonstrates how individual sensemaking outcomes delimit the strategic options leaders perceive as viable, producing path-dependent outcomes such as market exit, billing method persistence, and iterative product repositioning.

These gaps are framed in process terms: Figure 1 specifies where interpretations vary (properties), Figure.2 specifies how those interpretations stabilize (ESR), and Figure 3 specifies how the cases are used to examine both across distinct forms of equivocality.

2.6.4 Theoretical Contribution

This study extends the application of sensemaking theory by deploying the ESR cycle to examine multidimensional technology evaluation processes in SME, including sensemaking that occurs prior to formal adoption decisions rather than only in response to crises. It further specifies how different forms of equivocality activate distinct sensemaking properties that shape how leaders interpret and act on AI-related cues. By examining three decision contexts through a unified theoretical lens, this study demonstrates how the same interpretive mechanism can produce divergent strategic outcomes depending on the type and intensity of ambiguity involved.

The following chapter operationalizes this framework through a qualitative case methodology designed to capture sensemaking processes as they occur in naturalistic decision contexts.

Chapter 3: Methodology

3.1 Research Design

This thesis uses a qualitative, multiple-case study design to examine how SME owner-operators in Alberta make sense of Gen AI and how their interpretations shape strategic decisions about knowledge-based capabilities. A three-case design enables within-case depth and cross-case comparison across institutional, professional, and market-category equivocality, supporting explanation-building through theoretical replication (Eisenhardt, 1989; Yin, 2018)

Beyond their pedagogical utility, the teaching cases in this thesis serve as a deliberate methodological tool for theory development. As a hybrid qualitative method, teaching case studies occupy a unique position at the intersection of narrative inquiry and comparative case analysis. They maintain the contextual richness and temporal sequencing of participants' sensemaking narratives, the analogies they reach for, the identity commitments they invoke, the cues they extract, while also imposing structured boundaries (focal decision, protagonist, decision context) that facilitate systematic cross-case comparison. This methodological choice is particularly well-suited to studying sensemaking processes for three reasons.

First, teaching cases capture interpretation as it unfolds within real decision contexts, rather than reconstructing it retrospectively through detached analytical summaries. The narrative format preserves the equivocality, competing framings, and unresolved tensions central to sensemaking but often smoothed over in traditional case research (Weick, 1995). Second, the structured case format with its defined protagonist, decision point, and contextual boundaries enables the kind of theoretical replication logic that supports pattern identification across cases while maintaining within-case depth (Yin, 2018). Third, the iterative case development process itself acts as a form of verification: returning draft narratives to participants for review ensures

that the sensemaking dynamics captured in the cases reflect authentic interpretive processes rather than researcher-imposed framings (see Section 3.5.3). Thus, the cases are not merely illustrative; they serve as the primary analytical data through which the thesis's theoretical arguments are developed and tested.

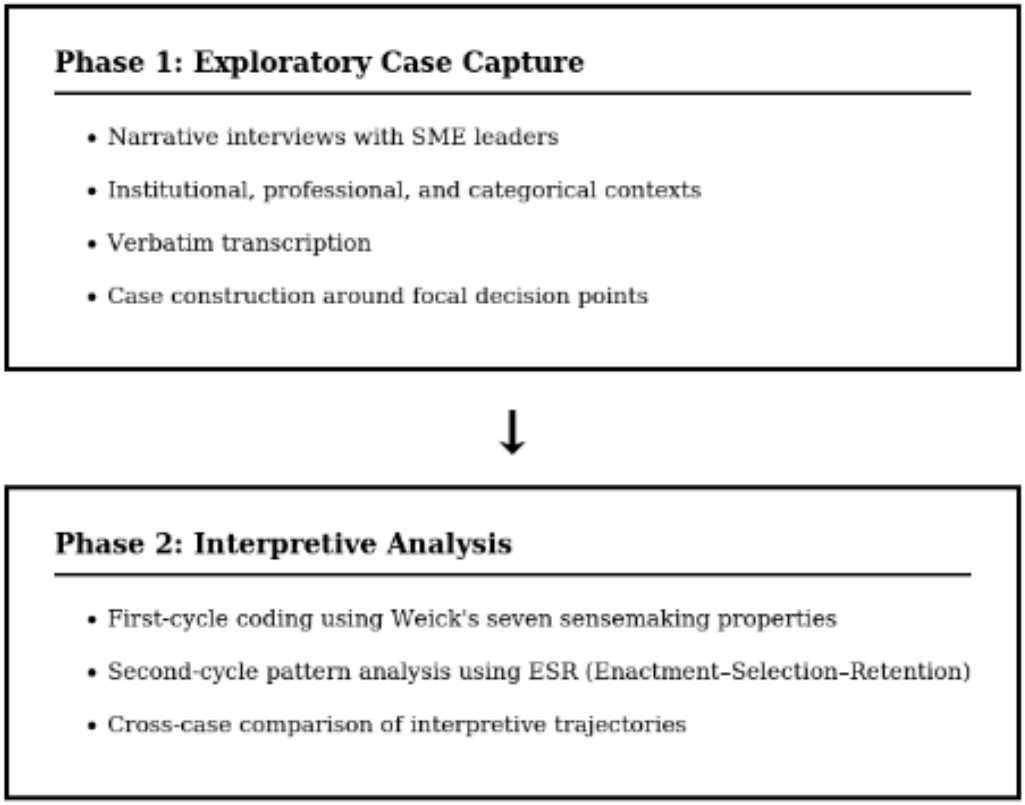
3.1.1 Exploratory Research Model

Given the interpretive nature of the research phenomenon, this study adopts a two-phase exploratory research model designed to capture how SME leaders make sense of Gen AI under conditions of equivocality. The model separates inductive case capture from theory-informed interpretive analysis to avoid prematurely imposing analytical categories on participants' accounts.

As summarized in Figure 4, Phase 1 involves inductive sensemaking exploration through narrative interviews and case construction across institutional, professional, and categorical contexts. Phase 2 then applies sensemaking theory, specifically Weick's seven properties and the ESR framework to analyze cross-case patterns and interpretive trajectories.

Figure 4

Exploratory Research Model Showing Phase 1 and Phase 2 of the Analytical Process



Note. This figure illustrates the two-phase exploratory research model used in this thesis. Phase 1 involves inductive case capture across institutional, professional, and categorical contexts. Phase 2 involves cross case interpretive analysis using Weick's sensemaking properties and the Enactment–Selection–Retention (ESR) framework.-phase exploratory research model used in this thesis. Phase 1 involves inductive case capture across institutional, professional, and categorical contexts. Phase 2 involves cross-case interpretive analysis using Weick's sensemaking properties and the Enactment–Selection–Retention (ESR) framework.

Phase 1: Inductive Sensemaking Exploration

As shown in Figure 4, Phase 1 involves inductive case capture through three comparative case studies representing distinct varieties of equivocality. This phase focuses on capturing

authentic sensemaking narratives without imposing predefined theoretical categories. Narrative interviews center on how SME leaders describe their decision contexts, perceived uncertainties, and interpretations of Gen AI as they naturally arise. Cases are selected using theoretical replication logic, such that the same underlying sensemaking mechanism is examined across differing institutional, professional, and categorical contexts.

Phase 2: Cross-Case Pattern Analysis

Figure 4 also illustrates how Phase 1 feeds into a second interpretive phase focused on cross-case pattern analysis. In Phase 2, Weick's sensemaking properties and the ESR framework are used as analytical lenses to examine how interpretations evolve and stabilize across cases. Specifically, the analysis attends to:

- How early enactments constrain or expand perceived AI use-case space.
- How selection processes stabilize particular narratives about AI relevance.
- How retention embeds these interpretations into ongoing strategic choices, creating path dependencies over time.

The exploratory research model described above is grounded in specific assumptions about how organizational realities are constructed and interpreted under conditions of uncertainty, which are articulated in the following ontological and epistemological positioning.

3.2 Ontological and Epistemological Position

This research is grounded in a constructivist ontology and interpretivist epistemology, recognizing that reality is socially constructed and that SME leaders' understanding of AI is shaped by subjective experiences, professional identity, organizational context, and social interactions. This philosophical stance aligns with the theoretical foundation of sensemaking theory, which views meaning as emerging from retrospective interpretation, social interactions,

and narrative framing rather than from objective analysis of predetermined categories. The research does not seek a single "true" understanding of AI, but rather explores how multiple plausible understandings are constructed, stabilized, and enacted within specific business contexts.

This interpretivist approach complements the KBV of the firm, which holds that organizations are repositories of unique, often tacit, knowledge assets that shape competitive advantage. By exploring how leaders perceive AI's role concerning their knowledge assets, especially tacit knowledge that AI might either threaten or enhance, this study acknowledges that technology choices are influenced not only by the capabilities of the technology itself but also by how leaders interpret these capabilities within their competitive environment.

3.3 Participant Selection and Case Boundaries

Three Alberta-based cases were purposefully selected to represent contrasting but comparable knowledge-intensive contexts, each embodying a distinct variety of equivocality identified in the theoretical framework (Chapter 2, Section 2.7):

Table 1

Case Selection Matrix: Protagonists, Contexts, and Varieties of Equivocality

Case	**Protagonist**	**Context**	**Variety of Equivocality**
Case 1	Wes Paterson	Market selection for Kiami AI platform (Canada vs. U.S.)	Institutional Equivocality
Case 2	Llana McCowan	AI-assisted billing decision for IT/HR consultancy	Professional Equivocality

Case 3	Israel Beck	Product-market fit for Cratic AI culture platform	Market-Category Equivocality

Each case is bounded around a focal strategic decision point (market pivot, operational workflow adoption, product positioning) and centers on the leader's interpretation of AI's role, risks, and value under conditions of uncertainty. Participants were selected through purposeful sampling based on their engagement with AI as a strategic concern, their role as owner-operators without dedicated IT or innovation functions, and their willingness to participate in the iterative case development process.

3.4 Data Collection Methods

3.4.1 Narrative Interview Methodology

The primary data for this study were collected through story-driven narrative interviews, a qualitative method that privileges participants' own constructions of their experiences (Clandinin & Connelly, 2000; Riessman, 2008). Unlike traditional semi-structured interviews that follow predetermined question sequences, narrative interviews invite participants to tell the story of their business challenges in their own words, with the interviewer serving as an active listener who asks clarifying questions to deepen understanding rather than to direct the narrative toward predetermined themes (Jovchelovitch & Bauer, 2000).

This approach was selected for three reasons aligned with sensemaking theory:

1. **Stories organize experience**: Narratives are the natural medium through which individuals communicate sensemaking (Bruner, 1991; Weick, 1995)
2. **Linguistic cues reveal frames**: Metaphors, analogies, and identity claims expose cognitive filters (Cornelissen, 2012; Kaplan, 2008)

3. **Organic emergence**: Allowing AI to surface naturally within business stories captures authentic sensemaking rather than researcher-imposed framing

3.4.2 Interview Protocol

Each case study was developed through an initial one-hour narrative interview with the decision-maker. The interview protocol began with a single, constructed opening question:

"Can you tell me the story of your business and the challenge you're currently facing?"

This broad opening grants narrative freedom while focusing on relevant phenomena (Flick, 2014). Throughout the interview, the researcher adopted a facilitative stance, asking follow-up questions only for clarification or elaboration:

- "Can you tell me more about that?"
- "What happened next?"
- "How did you make sense of that situation?"
- "What analogies did you use to explain this to others?"

Critical methodological choice: AI was not positioned as the central interview topic. Participants described genuine business problems, and AI emerged organically within their narratives, sometimes central, sometimes peripheral. This ensures capture of authentic sensemaking as it occurs in practice, aligning with Weick's emphasis on meaning constructed in the flow of experience.

3.4.3 Capturing Authentic Voice

Particular attention was paid to:

- Specific language used to describe AI

- Analogies drawn to make sense of unfamiliar technology ("AI is like...")
- Identity claims embedded in narratives ("As a consultant, I...")

All interviews were audio-recorded with informed consent and transcribed verbatim to preserve paralinguistic cues and pauses, hedges, emphases, self-corrections, that signal moments of cognitive uncertainty, identity negotiation, or sensemaking effort (Riessman, 2008).

3.5 Analytical Framework

3.5.1 Deductive Sensemaking Analysis

The three case studies were analyzed through Weick's sensemaking theory, focusing on seven core properties as sensitizing concepts:

Table 2

Weick's Seven Sensemaking Properties as Analytical Focus, with Cross-Case Examples

Property	Analytical Focus	Case Example
Identity construction	Professional identities shaping AI interpretation	Wes as "administrator/connector" vs. Llana as "craft professional"
Retrospective processing	Past experiences framing current AI opportunities	Llana's "calculator" analogy; Wes's "traffic circle" comparison
Enactive of environments	Actions creating environments then interpreted	Israel's product pitches enacting market confusion
Social	Peer networks and norms influencing decisions	Wes's U.S. peer comparisons; Llana's client relationship norms
Ongoing	Continuous sensemaking rather than discrete events	Israel's perpetual category negotiation
Extracted cues	Signals attended to vs. filtered out	Wes attending to "polite silence"; Israel to "pizza parties"

Plausibility over accuracy	"Good enough" interpretations enabling action	Llana's "AI is binary" despite Copilot's broader capabilities

These properties enabled systematic comparison across cases while remaining attentive to unique contextual features.

3.5.2 The Enactment-Selection-Retention (ESR) Cycle

The analysis employed Weick's ESR model to trace temporal dynamics:

- Enactment: Initial actions/experiments with AI (Wes's grant applications, Llana's Copilot trials, Israel's pilots)
- Selection: Interpretive frameworks constructed (analogies, identity claims, extracted cues)
- Retention: Stabilization in strategic narratives and practices (Wes's "Canada is slow" narrative, Llana's manual billing rituals, Israel's "motherboard" identity)

This process-oriented analysis addresses Research Questions 2 and 3 regarding ESR dynamics and strategic consequences.

3.5.3 Case Study Development as Iterative Verification

Following initial interviews, each case underwent iterative writing and verification:

Table 3

Iterative Case Development Process: Stages, Activities, and Purposes

Stage	Activity	Purpose
Drafting	Construct narrative around focal decision point	Create pedagogically effective teaching case
Member checking	Share draft with participant for review	Verify factual accuracy, authenticate voice, clarify ambiguities
Revision	2–3 rounds based on feedback	Enrich with emerging insights, ensure authentic representation
Authorization	Final approval for use	Respect for participant autonomy and business sensitivities

This process constitutes prolonged engagement and member checking, enhancing trustworthiness (Lincoln, 1985; Linda Birt et al., 2016).

3.6 Validity and Trustworthiness

Trustworthiness was established through four complementary practices. First, member checking was conducted through iterative case drafting and participant verification to ensure factual accuracy and faithful representation of participant voice. Second, participant accounts were corroborated through the integration of multiple data sources, including interview transcripts, publicly available documents, industry materials, and contextual reference sources,

enabling cross-verification of key events, decisions, and constraints described in each case. Third, within-case and cross-case pattern matching was undertaken using Weick's sensitizing concepts and the ESR cycle to support analytic coherence while preserving case-level variation. Fourth, thick description was employed to enhance transferability by enabling readers to assess the relevance of findings to other SME contexts. In addition, the inclusion of full teaching case sections provides readers with direct access to the business context, decision environment, and narrative flow of each participant's experience, supporting a richer understanding of how sensemaking unfolded over time beyond abstract analytical summaries.

Table 4

Trustworthiness Criteria, Strategies, and Implementation

Criterion	**Strategy**	**Implementation**
Credibility	Prolonged engagement; Member checking; Triangulation; Peer debriefing	Multiple interactions over weeks; Participant review of cases; Multiple data sources (transcripts, documents, industry reports); Supervisor and seminar feedback
Transferability	Analytical generalizability; Thick description	Mechanism-focused analysis; Rich contextual detail enabling readers to assess relevance
Dependability	Audit trail	Audio recordings, verbatim transcripts, iterative drafts with tracked changes, analytic memos, coding records
Confirmability	Reflexive practice	Researcher journal documenting assumptions and evolving interpretations; Explicit acknowledgment of interpretive role

3.7 Ethical Considerations

This research received ethics approval from the University of Lethbridge Research Ethics Board. Ethics approval was initially granted for each case study individually during the case development phase. A subsequent ethics approval was obtained to permit the use of these cases collectively within this thesis.

Throughout the research process, participant approval was a central focus of case generation. Participants were engaged iteratively to ensure informed consent at each stage of the case development process, including data collection, case drafting, revision, and final approval. Explicit consent was obtained for the inclusion and use of each case in this thesis, ensuring that participants were fully aware of how their narratives would be represented and used for academic purposes.

3.8 Limitations

This study has several limitations that should be acknowledged. First, the qualitative three-case design provides depth and rich within-case analysis but necessarily limits breadth; accordingly, the findings are not intended to be statistically generalizable. Second, the narratives collected may be influenced by retrospection and post-hoc rationalization, as participants reflect on past decisions and experiences. This risk was mitigated through iterative verification and member checking throughout the case development process. Third, the researcher's dual role as both case writer and analyst introduces the possibility of interpretive bias; this was managed through reflexive notation and ongoing validation with participants. Finally, the study is historically situated within the 2024–2025 period, a time characterized by rapid evolution in Gen AI discourse, which may limit the transferability of interpretations to future contexts. Despite these limitations, the study's emphasis on narrative authenticity, iterative verification, theoretical

grounding, and systematic cross-case analysis provides a robust foundation for understanding how SME owner-operators in Alberta make sense of Gen AI and how these interpretations shape strategic, knowledge-based decision-making.

Chapter 4: Case 1 - The Kiami Dilemma

Market Selection for an AI Solution in North America

It was late afternoon in September 2025, and Wes Paterson, a multi-award-winning management consultant, found himself replaying the same conversations yet again. Across Alberta's industrial sector, experienced technicians were approaching retirement, placing decades of hard-won, experience-based knowledge at risk of simply "walking out the door." As Paterson often warned clients, "If we don't capture that knowledge, it's gone." With the average age in many operations already over 50 and large portions of the workforce expected to retire within the next five to ten years, the need to preserve that expertise no longer felt theoretical but increasingly urgent, a demographic shift Paterson described as a growing "silver tsunami." For months, he had been advocating for the Kiami AI app because he believed it offered a practical way to respond to this accelerating problem by capturing and reusing critical operational knowledge before it disappeared.

Wes Paterson Background

Paterson is an experienced Canadian management consultant whose professional judgment is shaped by deep integration within Western Canada's industrial and institutional landscape. He describes himself as an "administrator" and "connector" operating on the people side of industrial implementation, aligning leadership, frontline workers, and systems during periods of technological change. His experience spans the oil sands, mining, water treatment, and manufacturing sectors, informed by earlier hands-on oilfield work and sustained involvement in workforce training, occupational safety, and executive education. Beyond client engagements, Paterson remains active on professional boards, in advisory roles, and in postsecondary training environments, placing him in regular dialogue with senior industry leaders, policymakers, and

practitioners. These roles provide ongoing institutional feedback on how organizations assess risk, legitimacy, and readiness for innovation, particularly in regulated and publicly visible settings. An advanced and experimental user of AI tools, Paterson views artificial intelligence as an amplifier of human intelligence rather than a replacement for labor. This embedded, experience-driven perspective shaped the intuitive judgments that underpinned his dilemma as North American lead for Kiami Solutions, even as it left him navigating uncertainty in a provincial market he knows intimately.

Paterson's Concern

As Paterson reflected on the situation, another concern nagged at him. When he and Kiami had formalized their North American partnership in the spring of 2024, Kiami was genuinely novel, one of perhaps a few dozen AI-powered maintenance management platforms seriously competing in the industrial space. That was six months ago. Now, every week brought news of another competitor. Established players like IBM are adding "AI features," startups emerging from accelerators, and even internal IT teams at large enterprises are building their own solutions with ChatGPT integrations. As one prospect put it during a conversation the previous week, "Wes, we're looking at about 500 different AI tools right now. Everyone's claiming to revolutionize maintenance." The comment had stayed with him. Kiami's technical edge was real, but increasingly, Paterson's job wasn't explaining what Kiami did; it was explaining why Kiami, among hundreds of options, was shouting for attention. And that differentiation came down to one thing: proven North American implementations that Kiami prospects could visit and verify.

To Paterson, Kiami AI represented an opportunity to respond to the future. He did not see the platform as a replacement for people, but rather as a way to preserve how seasoned experts

thought and worked. This framing mattered to him because he repeatedly encountered fears about “phasing myself out of a job.” In contrast, Paterson believed Kiami could “enhance the technicians,” allowing a newer operator to benefit from a seasoned veteran's judgment. As he explained it, AI was meant to “amplify, not replace” because “we are the true operator.”

And yet, despite early interest from his contacts, progress in Canada felt increasingly fragile. Meetings were cordial. The logic behind Kiami was rarely challenged. Still, momentum stalled. What initially looked like traction often dissolved into what Paterson privately described as “polite silence.” Each delay forced him to ask a more complex question: was the hesitation really about Kiami, or was it rooted in something more profound, unease with the term “AI,” discomfort with change, or a tendency to remain in the “same old, just status quo” until the pain became unavoidable?

At the same time, Paterson was hearing a very different story through conversations with fellow consultants working in the United States. One peer was blunt: “I did maybe 60k in Canada, and I did…2 million in the U.S.” for essentially the same work. In the U.S., decisions felt faster and more precise. Instead of waiting through a three-month grant application, firms asked a simpler question: “If this can move us faster in the next six months, why would we wait? Let’s just move.” Others, he observed, were “ready…hungry,” more willing to “step up to the plate and swing at the ball.”

The contrast went beyond anecdotes. Paterson could see that Kiami itself was noticing the difference. “It’s nice to see that the company’s not blind to it,” he remarked, acknowledging that interest in the U.S. was visibly stronger while “Canada just is quiet, is slow.” That realization sharpened a deeper concern. As he put it plainly, when innovation fails to find a market at home, “they go down to the U.S., and they build the company.”

With limited time and influence, Paterson felt the space for waiting narrowing. If momentum in Canada did not materialize, Kiami would likely follow the path of least resistance toward a market that said yes rather than maybe. The dilemma was no longer just about where growth might be faster, but about whether waiting in Canada would cost him the chance to help shape Kiami's future at all.

Kiami Solutions: A Practical Answer to a Persistent Problem

For Paterson, Kiami Solutions was never just another AI vendor. It represented a response to what he saw as an industrial future, organizations repeatedly “reinventing the wheel” because hard-earned experience was never formally captured. Founded in Israel in 2016, Kiami had built a platform that, in Paterson’s words, focused on taking what people already knew and making it available when and where it was needed, rather than treating AI as a labour replacement (Kiami Solutions, 2024).

What drew Paterson to Kiami was that the technology was not theoretical. “It’s an excellent product,” he emphasized, particularly because it reflected how work actually happened on the ground. At its core, the platform allowed companies to build an interactive digital representation of their operations, connecting equipment history, documentation, and procedures into a single environment. Rather than forcing users to search through binders or outdated systems, Kiami surfaced relevant information at the moment of need. To Paterson, this was not about replacing expertise but about making existing knowledge usable to the next generation.

A central feature reinforcing this belief was Kiami’s Expert Wizard. Paterson described it “as a way to take what a seasoned technician would instinctively ask, 'option one, option two, option three' and make that reasoning available to others”. By structuring expert insight into guided decision pathways, the system allowed junior staff to troubleshoot complex failures

without immediately escalating to a senior engineer. In Paterson's view, this addressed a quiet but growing anxiety on the shop floor: the fear that AI was about to replace people. Instead, he saw the tool as something that could "make you more effective at your job," while reinforcing that "we are the true operator."

The performance outcomes mattered to Paterson, but not in isolation. Kiami's reported reductions in unplanned downtime, support calls, and spare parts costs confirmed for him that the platform worked in real environments, not just pilot projects. More importantly, those gains signaled something deeper. Each avoided breakdown or unnecessary call represented knowledge being reused rather than lost. For Paterson, these results pointed back to the same concern he raised repeatedly in conversations with clients: "If we don't capture that knowledge, it's gone." Kiami, in his view, offered a way to ensure that critical expertise was not simply "walking out the door" at the moment the industry needed it most.

Strategic Fit: Why Kiami Is Built for Alberta

From Paterson's perspective, the question was never whether artificial intelligence *could* work in Alberta. It was whether organizations were prepared to confront what he saw as an unavoidable demographic reality. As he spoke with operators across the province, one concern kept resurfacing: the accelerating loss of skilled, experience-based labor. Senior technicians were nearing retirement, and with them would go decades of tacit knowledge, unwritten procedures, situational judgment, and hard-earned pattern recognition. "If we don't capture that knowledge, it's gone," Paterson warned. Without a deliberate intervention, that expertise would be "walking out the door." To him, Kiami was not just another maintenance platform; it was a way to hold onto knowledge that would otherwise disappear.

Paterson's confidence in Kiami was shaped by how closely he believed the platform aligned with the operational realities he had spent years observing in the Alberta oil patch. One of the first concerns he heard repeatedly was fear around data sharing. Companies were intensely protective of proprietary processes, and he knew that open or externally trained AI models would immediately raise red flags. What reassured him was Kiami's ability to "black box" information, allowing firms to "protect the information you don't want public" while still learning from patterns identified elsewhere. As he explained it, companies could run analyses "without sharing it," while the system continued to "pull from all over the world." In Paterson's view, this balance between local control and global learning fit how Alberta firms actually thought about competition and risk.

Geography was another reality in Alberta that Paterson could not ignore. He had seen how industrial assets spread across remote locations magnified the cost of small mistakes. Technicians could arrive on site with outdated drawings or incorrect parts, only to discover the problem after hours of travel. In those cases, components had to be "hot-shotted in," or crews had to turn around and repeat the journey, sometimes at a cost of millions of dollars in lost production. From his standpoint, Kiami's value lay in reducing the likelihood of those errors in the first place. By giving junior technicians access to expert reasoning at the point of work, the system allowed them to act with greater confidence and accuracy. As Paterson put it, the goal was not automation for its own sake, but to "make you more effective at your job," reinforcing his belief that with AI, "we are the true operator."

Above all, Paterson saw Kiami as a response to the aging workforce itself. He worried that without a mechanism to capture how experienced technicians thought through problems, organizations would be forced into a cycle of relearning mistakes that seasoned veterans once

avoided instinctively. Framing Kiami this way also helped him make sense of the resistance he encountered on the shop floor. He often heard concerns that AI would replace people, a fear he summarized bluntly as not wanting to "phase myself out of a job." In his mind, this misunderstanding obscured Kiami's real purpose. The platform was designed to "amplify, not replace," enabling newer workers to draw on the judgment of those preparing to retire rather than making human expertise obsolete.

However, Paterson recognized that product-market fit alone wouldn't guarantee success. In the rapidly crowding AI marketplace, Kiami's technical advantages, proprietary troubleshooting algorithms, data privacy architecture, and proven industrial deployment experience risked becoming invisible beneath the noise of hundreds of competitors making similar claims. The strategic value of an Alberta oil sands implementation went beyond revenue; it would provide the definitive differentiation story. When prospects asked, "Why Kiami versus the 500 other AI tools we're seeing?", Paterson needed to respond with: "Because we're already running at [Major Oil Sands Producer], handling their critical maintenance operations in one of the world's harshest industrial environments. Here's the VP you can call." Without that reference, Kiami was just another promising AI platform with compelling Israeli case studies, impressive but unverified in North American conditions. With it, Kiami would shift from vendor to proven solution. The question was whether Paterson could secure that proof point before competitors did.

Paterson's Reflection: AI Anxiety and a Growing Strategic Tension

Paterson remained passionate about the technology and its potential for Canada, but he was becoming increasingly pragmatic about the realities of the market. "In Canada, we're just not getting traction," he observed. "People are busy, they're afraid, they're waiting for someone

else to pay for it." This hesitancy stood in stark contrast to the signals from south of the border, leading him to a stark conclusion: "This is an opportunity. You have somebody smart, somebody that knows what they're doing, and you're about to lose them to the United States, not because of the money, but because you're just not listening."

Despite his conviction about the fit, Paterson became increasingly aware of a gap between the urgency he felt and the pace of adoption he observed in Alberta. Many conversations stalled not because of technical objections, but because the term "AI" itself triggered unease. He noticed how quickly discussions drifted toward science fiction imagery, with people hearing "AI" and immediately thinking of *Terminator* movies rather than practical tools already embedded in daily work. That anxiety was often layered on top of job-loss fears and a broader sense of overload. Clients told him they were seeing Kiami alongside "500 other AIs" and did not know where to start, creating what he described as "so much noise" that led people to default to the status quo until the pressure became unavoidable.

The proliferation of AI tools was creating analysis paralysis rather than accelerating adoption. As one operations manager told Paterson, "Every vendor says they're the future of maintenance management. How do we know which one will actually be here in two years?" The question revealed a deeper problem: the very explosion of AI solutions that should have validated the category was instead overwhelming prospects and delaying decisions. Companies acknowledged the need but postponed action until "the market shakes out," waiting for someone else to make the first move and validate their choice.

These experiences sharpened Paterson's awareness of a cultural contrast he could not ignore. In Canada, he felt organizations were inclined to be cautious and polite, often taking a "wait and see" approach and looking for external validation or government support before

committing. South of the border, his interactions felt different. U.S. firms, as he described it, were "playing to win," focusing less on debate and more on speed and outcomes. When American managers asked whether a tool could help them move faster in the next six months rather than waiting for a three-month grant application, Paterson found himself questioning how long Kiami could afford to wait for Canadian buyers to feel enough pain to act. Hearing that peers were generating roughly $60,000 in Canadian business compared with nearly $2 million in the United States for similar effort forced him to confront a difficult question: whether continuing to push in Alberta reflected strategic patience or strategic inertia.

Market Context: The Alberta Industrial Landscape

During this time, the industrial environment in Western Canada presented a paradox of high urgency and low agility. The "Silver Tsunami" retirement demographic crisis Paterson cited was supported by data at multiple geographic scales. At the regional level, the Calgary Economic Region, Alberta's largest metropolitan area, projected that between 2023 and 2033, "208,000 (representing 43 per cent of total job openings) are due to the need to replace retiring workers." (City of Calgary. Corporate Economics, 2024). In skilled trades, "close to three out of four job openings will result from worker replacement over the forecast period." (City of Calgary. Corporate Economics, 2024). This pattern extended across Alberta. Provincial data showed retirement rates for men in the 55-64 and 65-75 age groups "showed particularly large increases" between 2016 and 2021, with upward trends "across all age groups, genders, and geographic areas." (Government of Alberta. Treasury Board and Finance, 2024). At the national level, Statistics Canada (2024b) confirmed that this retirement wave would accelerate over the decade, projecting that Canada's labor force participation rate would decline from 65.2% in 2023 to 64.6% by 2041, with most of the decline occurring before 2030 as the final baby boomer cohorts

retire. Beyond numerical workforce gaps, this exodus threatened what DeLong (2004) termed "lost knowledge," the tacit, experience-based expertise that organizations fail to capture systematically, and what Leonard and Swap (2004) called "deep smarts": the pattern recognition and nuanced judgment accumulated over decades. In industrial environments, this manifested as critical "tribal knowledge" about the unwritten rules for fixing complex machinery, leaving the workforce at an unprecedented rate.

Despite this clear need for automation and knowledge capture, Canadian investment lagged. Research indicated a widening labour productivity gap between Canada and the United States, primarily driven by weaker capital investment in advanced technologies by Canadian firms (Bank of Canada, 2024). Canada's business sector productivity grew at one-third the rate of the United States over the past two decades, with labour productivity growing only 0.9% annually compared to nearly 2.7% in the US (Fraser Institute, 2025). The Conference Board of Canada (2024) reported that Canadian business investment in machinery, equipment, and intellectual property products remained 20% below pre-pandemic levels, while US investment had recovered to pre-2020 benchmarks. While US companies were aggressively adopting AI to address skills gaps, Canadian firms remained notably cautious, often citing costs and implementation risks. Statistics Canada (2024a) found that only 6.1% of Canadian businesses had implemented AI technologies in the second quarter of 2024, compared with comparable US firms, which had an adoption rate of 14.4% (Canadian Chamber of Commerce, 2024a). Adoption was concentrated in large enterprises and information sectors, leaving the small and medium-sized manufacturers that dominated Paterson's target market largely untapped (Statistics Canada, 2024a).

The Accelerating AI Adoption Race

By 2025, Canadian and Alberta manufacturers were under growing pressure to move beyond reactive maintenance, as unplanned downtime averaged 27 hours per month and could cost up to $25,000 per hour, prompting regional innovation groups to promote AI-enabled predictive maintenance as a critical competitiveness strategy (Alberta Machine Intelligence Institute, 2026). At the same time, federal SME policy work showcased Canadian firms using AI and IoT to predict equipment failures and energy overconsumption, cutting unplanned repairs by up to 40% and extending asset lifespans (Innovation, Science and Economic Development Canada, 2025). Against this backdrop, the maintenance management software landscape was becoming crowded: global CMMS providers were embedding AI-driven diagnostics and digital twins into existing platforms (Technavio, 2025), while AI-first predictive maintenance vendors and in-house teams used Gen AI APIs (Like ChatGPT) to build lighter-weight, custom solutions on top of existing systems (Kapuściński, 2025). The window for establishing market leadership was narrowing. In emerging technology categories, companies establishing themselves as "the AI solution" for a specific vertical within the first 12-18 months captured disproportionate market share, often becoming the default choice that later entrants struggled to displace. For Kiami, this created a paradox: the very AI explosion driving customer interest was simultaneously making differentiation harder. As Paterson observed from prospect conversations, potential clients were often overwhelmed rather than energized by options. "Analysis paralysis" was becoming the default response; companies acknowledged the need but postponed decisions until "the market shakes out" or until they saw which platforms their peers adopted first.

A sudden policy shift exacerbated the barriers to funding and adoption Paterson experienced. The Government of Alberta unexpectedly announced the suspension of all new applications to the Canada-Alberta Job Grant program (CAJG), a popular funding stream that

subsidized employers' training costs (Alberta Council of Disability Services, 2024). The suspension, triggered by the federal government's decision to end temporary Labour Market Transfer Agreement (LMTA) top-up funding effective April 1, 2024, removed approximately $10 million in training support from the Alberta market for the 2024-25 fiscal year (Alberta Council of Disability Services, 2024; Sherif, 2024). For many of Paterson's prospects, this freeze became a valid excuse to halt all decision-making on new training platforms, such as Kiami. Against this backdrop of heightened uncertainty in the Canadian market, Paterson turned his attention to a broader strategic question: whether Kiami's future was better pursued in Canada or in the United States.

Strategic Options

In preparing to set Kiami's course, Paterson weighed several critical factors as he evaluated expansion opportunities in Canada and the United States. At this stage, Kiami had not yet committed to a primary market, making the choice between the two countries a pivotal strategic decision. He assessed which path would best position Kiami as a top-tier solution while accounting for fundamental differences in decision-making speed between the two countries. Because Kiami operated as a side project alongside his consultancy, both his time and financial resources were limited, making it impractical to pursue the Canadian and U.S. markets with equal intensity. The Canadian strategy depended heavily on securing a high-profile, grant-funded pilot to create a tipping point of external validation. By contrast, the U.S. market presented a markedly different proposition. The disparity in market size and investment appetite was substantial, with Paterson characterizing the United States as a "ten-times larger market," referencing a peer who had generated approximately $2 million in U.S. revenue compared with only $60,000 in Canada.

Potential Market Pathways

Option 1: Double Down in Canada – The "Tipping Point" Strategy

The first pathway involved doubling down on Canada through a "Tipping Point" strategy. This meant continuing the focused, relationship-driven business process in Western Canada, specifically targeting the oil sands and municipal water sectors. Paterson's theory was not that the market was dead, but that it was waiting for permission to act. He believed a single, government-co-funded pilot with a major player would create the reference story needed to de-risk the technology for everyone else.

To achieve this, Paterson planned to pursue guerrilla marketing and specific grant opportunities, such as the Emissions Reduction Alberta (ERA) tailings challenge. His logic was economic and reputational: “If we can partner with one of the big oil sands producers... they’re getting it at 50 cents on the dollar, essentially, because the ERA is kicking in a huge amount.” He argued that this leverage would create a domino effect that no amount of marketing spend could replicate. “Part of the benefit just of winning that million-dollar challenge is that’s really interesting... we’re going to get press on that,” he explained. He viewed this as the process of proving it once locally being the key to unlocking the wider market: “Let’s prove it out here, then let’s expand... Nice stories that then now we’ve proven it... That’s where we see the win... to spread awareness.”

Competitive Timing Considerations

The Canadian strategy's dependence on a high-profile pilot created competitive vulnerability. While Paterson pursued the slow-moving ERA tailings challenge or municipal grant applications, competitors were moving faster in less bureaucratic markets. Pure-play startups with venture capital funding could afford to offer steep discounts or even free pilots to U.S. oil & gas operators, building case studies that would then be marketed back to Canadian prospects.

More concerning was the "500 other AIs" problem, which Paterson noted created a state of "information overload" where Canadian organizations simply "don’t know where to start". Instead of recognizing Kiami’s specialized value, potential clients were often paralyzed by a "comfortable, same old, just status quo" mindset, refusing to move until they encountered a "tremendous amount of pain". One municipal director illustrated this deep-seated risk aversion,

telling Paterson, "Wes, I’m getting backlash for putting in a traffic circle. Could you imagine we implement a system like this?"

This hesitation created a strategic paradox. While Paterson knew he needed to land "big wins" in the oil sands to stake a claim in North America, the Canadian market remained stuck in a cycle of skepticism, often asking, "Well, worked in Israel, but will it work here?" Paterson observed that while Canadian firms were "hesitant" and "polite" but slow to act, the U.S. market was "playing to win" and "a lot more willing to bet the farm" on innovation. For Paterson, the danger was clear: if he had to go to the U.S. to find the urgency that didn't exist in Alberta, the "innovation sees they don’t have a market in Canada, and they go down to the U.S., and they build the company" there instead.

Option 2: Pivot South – The "U.S. Primary Growth Engine" Strategy

The alternative was to pivot south and treat the U.S. as the primary growth engine. This path recommended re-prioritizing the majority of effort and resources to the United States, treating it as the main market and any Canadian success as opportunistic. Paterson saw a fundamental difference in culture that made this attractive. “The U.S. is playing to win,” he observed. “On average, they invest three times what Canadian firms do in training and technology per worker, and they don’t wait for a government grant.”

Beyond the cultural fit, the logistical barriers were surprisingly low: “it cost me a tenth the price to set up [there],” and the feedback loop was immediate. “In the U.S., it’s yes or no; they just move,” he noted. This strategy would involve formally capitalizing a U.S. entity, building targeted lead lists for the American oil & gas and water sectors, and running separate, aggressive marketing campaigns to capture the "10 times bigger market."

Competitive Advantage Through Velocity

The U.S. strategy offered a critical advantage in an increasingly crowded market: the ability to bypass the "wait and see" culture of Canada. Paterson observed that while Canadian firms often stalled while waiting for "government grants" to offset costs, American operators were "playing to win". In the U.S., the logic was practical: "If this can move us faster in the next six months, why would we wait for a three-month grant application? Let's just move". This shift in mindset meant Kiami could potentially launch a "30-day trial" and see results immediately, whereas the sales cycle in Canada could drag on for "12 to 18 months".

This velocity was essential for cutting through the "information overload" of the marketplace. Paterson noted that prospects were currently inundated with "so much noise," often seeing Kiami alongside "500 other AIs" and not knowing where to start. By moving at U.S. speeds, Kiami could build a volume of social proof to overcome the skepticism that plagued Alberta, where decision-makers often asked, "It worked in Israel, but will it work here?" Rapidly securing "big, big wins" south of the border would allow Paterson to "stake out our claim" and return to Canada with the validation the local market required.

However, the strategy was not without risk. Paterson admitted he was "green to the U.S." market, where he would be competing in a "10 times bigger market" against established giants. He noted that major players were already using "Cap-Ex (Capital Expenditure) SAP (Systems, Applications, and Products in Data Processing) integration" or IBM systems, but he believed Kiami's ability to "plug in and get up and running right away" gave it a specialized edge. Despite the risks of the U.S. being a more "litigious system," Paterson's mentor was blunt: "You'd be a fool not to move toward the higher velocity of the American market. As Paterson concluded, his business head dictated he "play the game" where the rules favored speed and growth over the "comfortable, same old, just status quo.

The Decision Point

The urgency of Paterson's decision was dictated by the calendar. He knew that the Canadian industrial sector operated on a strict, seasonal rhythm: "In Canada, we seem to work really hard for nine months of the year and then everyone disappears in the summer."

With September arriving, the sales window was opening, but it was narrow. "Sept, Oct, Nov is really the season for this stuff," Paterson realized. He had a tight three-month window to either capture the Canadian market before the holiday freeze or abandon it to capitalize on the active U.S. budget cycle. He could not afford to be distracted during this critical quarter.

Sitting at his desk, the two emails, one from a hesitant Canadian director, another from an eager U.S. operations manager, epitomized the dilemma. He needed to craft a definitive recommendation for Kiami. Should the company keep "fighting the Canadian fight" for a breakthrough during this short season, or treat the "U.S. as the primary growth engine" and reallocate resources immediately? The opportunity was real, but the window for decisive action was closing.

Conclusion

Paterson's dilemma reflected a broader strategic tension faced by many technology ventures operating across asymmetric markets: whether to persist in a slower, validation-driven environment where product-market fit was clear but adoption lagged, or to reallocate to a larger, faster-moving market with stronger investment appetite and urgency. Canada offered Kiami conceptual alignment, sector-specific relevance, and the possibility of a catalytic pilot. However, it was constrained by grant dependency, policy volatility, and elongated decision-making cycles. The United States, by contrast, presented fewer structural barriers, clearer buying signals, and a compressed sales cycle, although heightened competitive intensity and execution risk. As the

critical fall sales window narrowed, Paterson was compelled to recommend a path that balanced near-term revenue generation with long-term strategic goals.

Teaching Note Case 1

Case Synopsis

In September 2025, Wes Paterson, a Canadian management consultant with deep ties to Western Canada's industrial sector, faced a narrowing strategic window. Across Alberta, experienced technicians were approaching retirement, risking the loss of decades of tacit operational knowledge. Paterson had spent months warning clients that without a way to capture and reuse that expertise, critical know-how would simply walk out the door. He believed this demographic pressure was no longer a distant concern but an immediate operational risk, particularly in asset-intensive industries where experience often mattered more than formal documentation.

Paterson saw Kiami, an AI-powered maintenance and troubleshooting platform, as a practical response to this problem. Rather than replacing workers, Kiami aimed to preserve seasoned technicians' thinking and decision-making, allowing less experienced staff to access expert reasoning at the point of work. Early conversations with Canadian organizations suggested interest and conceptual alignment, yet progress remained slow. Meetings were cordial, objections were rare, but momentum repeatedly stalled, leaving Paterson questioning whether resistance stemmed from Kiami itself or from broader unease with artificial intelligence, change, and perceived risk.

At the same time, Paterson was hearing a very different story from peers operating in the United States. Consultants described faster decision-making, larger budgets, and a willingness to act without waiting for government grants or external validation. Prospective customers there framed AI adoption as a near-term productivity play rather than a speculative investment. The contrast raised concerns that while Canada offered a strong conceptual fit and the promise of a

high-profile reference customer, the U.S. market offered greater velocity and clearer buying signals in an increasingly crowded AI landscape.

With limited time and resources, Paterson had to decide where to focus his efforts during a critical fall sales window. Doubling down in Canada could yield a landmark pilot that would legitimize Kiami locally, but risked further delays. Pivoting toward the United States could accelerate growth and generate proof points, but at the cost of deprioritizing a market Paterson knew well. The case asks whether Paterson should continue pursuing a tipping point in Canada or reallocate attention to a faster-moving U.S. market, and how that choice should be justified given uncertainty, competitive noise, and the urgency of the moment.

Learning Objectives

After completing the case, students should be able to:

Analyze market selection decisions for emerging technology ventures when time, capital, and managerial attention are constrained.

Evaluate how institutional environments, including policy frameworks, funding mechanisms, and investment culture, influence the adoption of AI and other advanced technologies.

Apply strategic frameworks to compare opportunity cost, market timing, and execution risk across competing geographic markets.

Assess leadership decision-making when professional judgment, personal incentives, and role-based constraints intersect under conditions of uncertainty.

Table 5

Case 1 Learning Objectives, Core Concepts, and Case Application

Learning Objective	Core Concepts	Case Application
LO1 Market selection under constraints	Focus vs. spread, resource allocation, sequencing	Canada "tipping point" strategy vs. U.S. primary growth engine
LO2 Institutional context and adoption	Policy risk, grants, procurement norms, legitimacy	Grant dependence in Canada vs. market-driven adoption in the U.S.
LO3 Strategic comparison of markets	Opportunity cost, timing, execution risk	Fall sales window, competitive noise, speed of decision making
LO4 Leadership judgment under uncertainty	Role conflict, incentives, bounded rationality	Paterson's dual role as consultant and market lead

Theoretical Linkages

This case integrates multiple established business and organizational frameworks to help students analyze decision-making under conditions where credible expert judgment coexists with incomplete, conflicting, or lagging empirical evidence. Wes Paterson is not presented as an uninformed or naïve decision maker. He is deeply embedded in Alberta's industrial, political, and institutional landscape, and his interpretations of market behavior are grounded in years of repeated exposure to how organizations respond to risk, funding structures, and innovation. His judgments are therefore reasonable, influential, and difficult to dismiss.

The case deliberately introduces external signals that do not fully align with Paterson's expectations. Industry data, AI adoption statistics, productivity reports, and sudden policy shifts complicate his lived experience and introduce uncertainty into what initially appears to be a straightforward Canada versus United States market comparison. Rather than positioning the

data as definitive or the expert narrative as flawed, the case is designed to surface the tension between experience-based sensemaking and evidence-based analysis.

Sensemaking theory explains how Paterson constructs a coherent narrative about AI adoption in Canada and the United States based on long-term pattern recognition, repeated interactions with decision makers, and institutional familiarity. His framing of Canada as cautious, grant-dependent, and slow-moving emerges as a rational interpretation of past experience. The dilemma arises when current outcomes fail to match that narrative, creating a disruption in sensemaking that forces reassessment rather than simple error correction.

Cognitive bias frameworks further illuminate how expert intuition operates under uncertainty. Paterson's judgments reflect fast, experience-driven reasoning that is often effective in complex environments. However, the case also highlights how confirmation bias, availability bias, and anchoring can restrict engagement with disconfirming evidence when market signals shift. Students are encouraged to distinguish between intuition that reflects legitimate expertise and intuition that requires recalibration through slower, evidence-based reasoning.

The case also draws on theories of expert power, credibility, and incentives. Paterson's authority is reinforced through advisory roles, institutional affiliations, and trusted relationships, which shape how others interpret his recommendations. At the same time, his dual role as consultant and equity-aligned advisor subtly influences how risk, timing, and opportunity are framed. This framework allows students to respect expertise while critically examining how identity, incentives, and reputation affect strategic judgment without assuming bad faith.

Evidence-based management provides the normative anchor for integrating practitioner judgment with empirical data. The juxtaposition of Paterson's narrative with external evidence such as adoption statistics, productivity trends, and policy changes invites students to evaluate

evidence quality, relevance, and timing. Rather than privileging data or experience alone, the framework supports disciplined synthesis when neither offers a complete answer.

Technology adoption and diffusion theory situates Kiami's challenge within broader institutional constraints. The case demonstrates that recognizing a problem, such as knowledge loss from retirements, does not automatically lead to adoption. Institutional readiness, funding mechanisms, legitimacy thresholds, and social proof shape diffusion trajectories. Differences between Canada and the United States reflect not only market size but also distinct institutional and cultural conditions affecting adoption speed.

These frameworks train students to respect expert credibility, identify where facts conflict with narratives and why, reconcile experience-based judgment with empirical evidence, and develop a defensible strategic recommendation under uncertainty. Rather than resolving the dilemma by declaring one market superior, the case emphasizes how strategic decisions are made when evidence is partial, incentives are real, and time is constrained, a condition common in leadership and emerging technology contexts.

Table 6

Case 1 Learning Objectives, Theoretical Frameworks, and Suggested Readings

Learning Objective	Theoretical Framework	Key Readings
LO1 Analyze market selection decisions for technology ventures under resource constraints	Market Entry and Market Selection Theory; Real Options Logic	From minds to markets: How human capital endowments shape market opportunity identification of technology start-ups (Gruber et al., 2012)

LO2 Evaluate how institutional environments shape innovation adoption	Institutional Theory; Technology Diffusion	Rethinking the process of diffusion in innovation: A service-ecosystems and institutional perspective (Vargo et al., 2020)
LO3 Assess expert judgment when experience conflicts with emerging evidence	Sensemaking; Cognitive Bias and Strategic Judgment	Sensemaking Under Pressure: The Influence of Professional Roles and Social Accountability on the Creation of Sense (Cornelissen, 2012)
LO4 Integrate practitioner insight with empirical data to support strategic recommendations	Evidence-Based Management; Expert Power and Incentives	Evidence-based change management (Rousseau & ten Have, 2022)

Intended Courses

This case is appropriate for MBA and MSc courses in Strategy, Technology Management, Entrepreneurship, and Digital Transformation, as well as courses examining AI adoption in organizational settings. It enables instructors to move beyond technical descriptions of artificial intelligence and focus instead on how organizations interpret uncertain value, assess risk, and make strategic decisions when adoption outcomes are ambiguous and evidence is incomplete. The case is particularly effective for exploring market selection, timing, and resource allocation in emerging technology contexts, where managerial judgment plays a central role.

The case is also well-suited to executive education and professional programs that emphasize evaluating consultant recommendations and expert judgment. It provides a structured

setting for comparing practitioner narratives grounded in experience with industry-independent data and policy signals that complicate those narratives. In capstone or integrative courses, the case supports synthesis across strategy, cognition, and evidence-based management, allowing instructors to revisit the same decision context as new analytical lenses are introduced and reinforcing cumulative learning rather than one-time analysis.

Suggested Teaching Approaches

This case is designed to be taught using a theory-first, application-driven approach that moves students from intuitive reaction to disciplined, evidence-based judgment. Students initially encounter the case without formal analytical frameworks, allowing them to engage with the dilemma as practitioners facing uncertainty rather than as analysts searching for predefined models. A single theoretical lens is then introduced and applied to the case, enabling students to examine how expert judgment is constructed, why it is persuasive, and where it may be constrained by incomplete or conflicting evidence. The case also supports cumulative learning, as instructors can return to the same decision context across multiple sessions while introducing different analytical frameworks over time

The case is appropriate for MSc, MBA, and advanced undergraduate courses, with analytical depth adjusted through expectations regarding evidence quality, methodological rigor, and presentation format. It is also well-suited to executive education settings that emphasize evaluating consultant recommendations and expert narratives. Across contexts, the instructional goal is to help students develop judgment under uncertainty, rather than arrive at a single correct answer.

Option 1: 80-Minute Class (Decision-Focused Discussion)

In an 80-minute format, the case functions effectively as a decision-centered discussion emphasizing strategic trade-offs. The session typically begins with a brief case recap and clarification of the decision facing Wes Paterson, followed by small-group analysis comparing the Canadian "tipping point" strategy with the U.S. "primary growth engine" option. The class then reconvenes for a plenary discussion guided by a selected theoretical framework, such as market selection or technology diffusion. The session concludes with a decision vote and instructor synthesis highlighting how different assumptions and analytical lenses lead to divergent recommendations. This format is well-suited for strategy or innovation courses where time is limited, and the emphasis is on structured debate.

Option 2: 110-Minute Class (Framework Application and Evidence Integration)

In a 110-minute class, the case supports deeper theoretical engagement and evidence-based analysis. After establishing the decision context, the instructor introduces one primary framework, such as sensemaking, cognitive bias, or evidence-based management, and applies it explicitly to Paterson's reasoning. Students work in small groups to map theoretical concepts to specific claims and assumptions in the case and assess those claims against external evidence. The extended time allows for richer discussion of institutional differences between Canada and the United States and the implications for AI adoption. This format is appropriate for graduate-level courses emphasizing analytical rigor and theory application.

Option 3: 170-Minute Class or Major Assignment (Integrative Analysis)

In longer class formats or capstone-style courses, the case can serve as the foundation for a major assignment or multi-session project. Students are asked to develop a comprehensive strategic recommendation for Kiami that integrates one or more theoretical frameworks with independent industry research. Deliverables may include a written strategic memo, a market

entry plan with an execution roadmap, or an executive-style presentation framed as advice to Kiami's leadership or board. This approach is particularly effective in integrative strategy, consulting, or digital transformation courses, where the goal is to synthesize theory, evidence, and professional judgment under conditions of uncertainty.

Across all teaching approaches, the case encourages students to respect expert credibility while remaining analytically critical, to recognize where narratives and data diverge, and to articulate recommendations that explicitly acknowledge uncertainty, trade-offs, and risk.

Research Methods

This case is based on an unstructured interview with Wes Paterson, conducted following approval under a University of Alberta ARISE ethics waiver obtained prior to the interview. The data were collected in a single interview, with follow-up clarification and questions via email. The interview data were supplemented with publicly available industry reports, government statistics, and policy documents to provide contextual grounding and external reference points.

Analysis & Discussion Questions

Question 1: Which of Wes Paterson's claims are strongly supported, partially supported, or not supported by industry evidence? (LO1)

Exemplar analysis

Several of Paterson's core claims are strongly supported by external evidence presented in the case. His assertion that Alberta and Canada face a significant loss of tacit industrial knowledge due to retirements aligns closely with regional and national labor force data documenting accelerated retirements and replacement-driven job openings. Industry statistics and government reports substantiate the urgency of knowledge capture and workforce transition, lending credibility to his concern that experience-based expertise is "walking out the door."

Other claims are only partially supported. Paterson's belief that Canadian organizations are slower to adopt AI due to grant dependency and institutional caution is consistent with lower reported AI adoption rates and weaker capital investment relative to the United States. However, industry data also show growing interest and pilot activity, suggesting that adoption is uneven rather than absent. The evidence complicates, rather than fully confirms, his interpretation of structural inertia.

Some claims remain weakly supported or ambiguous. The implied superiority of the U.S. market as uniformly faster-moving and more decisive is based largely on anecdotal comparisons rather than comprehensive sector-wide data. While U.S. firms show higher adoption rates, the case does not provide definitive evidence that Kiami's specific value proposition would scale more successfully there without additional execution risks.

Instructor guidance and common pitfalls

Students often treat evidence as binary confirmation or rejection. Instructors should encourage categorization into strong, partial, and weak support, emphasizing nuance rather than verdicts. A common mistake is privileging anecdotal quotes over aggregate data or assuming that correlation implies causation.

Question 2: What cognitive or incentive-based biases may shape Wes Paterson's interpretation of the data? (LO2)

Exemplar analysis

Paterson's reasoning reflects several cognitive tendencies associated with expert judgment under uncertainty. His long-standing experience in Alberta likely activates availability and confirmation biases, as repeated exposure to cautious decision-making and grant dependence reinforces a familiar narrative about Canadian markets. These intuitions are not irrational; they represent efficient pattern recognition built through experience. However, they may also limit

sensitivity to emerging counter-signals, such as early adopter behavior or shifting institutional norms.

Incentive structures may further shape interpretation. As a consultant and equity-aligned advisor, Paterson has professional and reputational incentives to emphasize urgency and differentiation. While there is no indication of deliberate distortion, these roles can subtly influence how risks, timelines, and opportunities are framed, particularly when outcomes are uncertain and personal credibility is at stake.

Instructor guidance and common pitfalls

Students may incorrectly assume that bias implies poor judgment or bad faith. Instructors should stress that cognitive biases are normal features of expert decision making and that the analytical task is to recognize and manage them, not eliminate intuition altogether.

Question 3: When expert experience and aggregate data conflict, how should decision-makers proceed? (LO3)

Exemplar analysis

When expert judgment and aggregate evidence diverge, decision-makers should adopt an evidence-based management approach that integrates, rather than substitutes, one for the other. Expert narratives provide contextual understanding, causal insight, and practical feasibility that aggregate data often lack. Conversely, external data helps test assumptions, reveal boundary conditions, and identify trends that may not yet be visible through experience alone.

In this case, this suggests treating Paterson's interpretation as a working hypothesis rather than a conclusion. Decision-makers should assess the quality, relevance, and timeliness of both experiential and empirical evidence, identify areas of convergence and divergence, and explicitly

acknowledge uncertainty. Real options logic may be appropriate, allowing staged commitments that preserve flexibility while generating new information.

Question 4: What recommendation would you make to Kiami's leadership, given incomplete and imperfect evidence? (LO4)

Exemplar analysis

A defensible recommendation recognizes both the urgency Paterson identifies and the uncertainty revealed by external evidence. One viable approach is a sequenced strategy that prioritizes near-term engagement in the U.S. market to build velocity and reference customers, while maintaining optionality in Canada through targeted pilot pursuits. This balances speed with legitimacy and avoids full commitment based on untested assumptions.

Alternatively, a Canada-first strategy could be justified if a credible, time-bound pathway to a high-profile pilot exists. The critical factor is not geography alone but the ability to generate visible proof points within the narrow decision window. In all cases, the recommendation should explicitly state assumptions, identify risks, and outline metrics that would trigger reassessment.

Instructor guidance and common pitfalls

Students often rush to choose a market without articulating assumptions or contingency plans. Instructors should emphasize that recommendation quality depends on transparency about uncertainty, not confidence of tone. Multiple recommendations can be equally valid if well supported.

Pedagogical Alignment

These discussion questions are designed to support both 80-minute decision-focused sessions and 110-minute framework-application sessions, as outlined in the Suggested Teaching Approaches. Question 1 anchors evidence evaluation, Questions 2 and 3 deepen analytical reasoning using theory, and Question 4 synthesizes insights into an actionable recommendation.

Together, they reinforce the central learning objective of disciplined decision making under uncertainty rather than the identification of a single correct outcome.

Instructor Alignment Note

Instructors are encouraged to emphasize that this case is not designed to challenge or discredit the consultant's expertise. Wes Paterson is presented as a credible and seasoned practitioner whose judgments are shaped by decades of experience, sustained engagement with major industrial and institutional actors, and a history of successful decision-making. In environments characterized by uncertainty and incomplete data, experts such as Paterson necessarily rely on intuition, tacit knowledge, and situational interpretation to guide action. His perspective is therefore both reasonable and influential within the context of the case.

The pedagogical objective is not to ask whether Paterson is "right or wrong," but to examine how expert intuition interacts with limited, lagging, or conflicting evidence. By juxtaposing Paterson's practitioner narrative with external data and policy signals, the case creates space for students to analyze how interpretive frames, cognitive biases, and personal experience shape judgment under uncertainty. This approach allows students to practice evaluating expert claims with respect and analytical discipline, rather than reflexive skepticism or uncritical acceptance.

Instructors may also wish to underscore that the primary learning value of the case lies less in the specific geographic choice between Canada and the United States and more in the quality of reasoning students bring to the decision. The case illustrates how even highly trusted experts can face genuine ambiguity when empirical signals are incomplete or misaligned with prior experience. Analytical frameworks should therefore be framed as sensemaking tools rather than definitive solutions. Different lenses may illuminate different aspects of Paterson's

reasoning, and divergent student recommendations can be equally defensible when grounded in transparent assumptions, appropriate evidence, and coherent logic.

The case invites students to reflect on their own assumptions and biases and to practice grounding strategic recommendations in the best available evidence while acknowledging uncertainty. By reinforcing that disciplined thinking, rather than identifying a single correct answer, is the central objective, instructors can use the case to model how real-world strategic decisions are made in emerging and uncertain contexts.

Exhibits for Case Study 1

Table 7

Comparative Prospect Email Responses: Canadian vs. U.S. Buyers

Source	Key Excerpt	Implied Process & Culture
Canadian Municipality (Director of Operations)	"The technology looks interesting, but we are currently reviewing our budgets... and waiting to see if the provincial productivity grant is renewed. Let's touch base in Q1."	Hesitant, grant dependent. Defers decision, contingent on external funding.
U.S. Oilfield Services Co. (Operations Manager)	"This looks exactly like what we need... I have three senior guys retiring in December. Can we jump on a 15-minute call on Tuesday? I want to see a demo."	Urgent, need-driven. Seeks immediate action to solve a clear, pressing problem.

Table 8

Kiami Solutions Platform Overview

Aspect	Description / Claim
Product Type	AI-powered troubleshooting, maintenance management, and digital factory platform.
Primary Function	Provides AI-driven troubleshooting guidance and a knowledge base to help technicians diagnose and resolve equipment issues.
Digital Factory Features	Interactive digital factory maps, knowledge centers, and guided procedures (e.g., diagrams, manuals, videos).
User Interfaces	Web and mobile support with intuitive UX for tablets and smartphones.

Onboarding & Trial	Promotes 10-minute onboarding and a 30-day free trial.
Downtime Reduction	Claims customers can cut unplanned downtimes by up to 70%.
Support Calls	Self-service troubleshooting can reduce support calls by ~50%.
Repair Time & Parts Costs	Customers report 30–70% reduction in average repair time and savings in parts costs (optimization & reduced waste).
Knowledge Sharing & Onboarding	The platform helps preserve expert knowledge, share best practices across teams, and accelerate learning curves for new technicians.
Analytics & Dashboards	Built-in dashboards provide insights into maintenance, failures, KPIs, and trends.

Table 9

Kiami Strategic Timeline, 2016–2025

Phase	Timeframe	Key Event / Milestone
Origin	2016–2023	Kiami was founded in Israel; validates technology in European & Israeli markets. Achieves key performance metrics (70% downtime reduction).
Expansion	Early 2024	Wes Paterson secures North American rights.
Launch	Spring 2024	Initial "Guerrilla Marketing" push in Western Canada targeting Oil Sands & Municipalities.
Stagnation	Summer 2024	The "Summer Slump": High interest from Canadian prospects but zero closings. Feedback indicates hesitation and grant-dependency.
Decision	Sept 2025	The Case Dilemma: Resources are running low. Seamless.AI data shows massive U.S. potential vs. Canadian stagnation.
Projection	Q4 2025	Critical Window: U.S. companies finalizing 2025 budgets vs. Canadian companies closing books for the year.
Future	Q1 2026	Next major Canadian provincial grant cycle opens (potential "tipping point" opportunity).

Table 10

Alberta Industry Needs and Kiami Feature Fit Assessment

Alberta Industry Needs	Kiami Feature Fit	Wes Paterson's Comment
Data Privacy (Oil Sands)	"Black Box" architecture ensures no data leakage to competitors (e.g., CNRL vs. Suncor).	"They're not sharing their proprietary information... but benefiting from the global knowledge base."
Remote/Rural Sites	Offline/Tablet capability for diagnostics in low-connectivity areas.	"It empowers the operational staff... reducing those support calls by 50%."
Aging Workforce	"Tribal Knowledge" aims to mitigate the 200,000+ expected retirements.	"If we don't capture that knowledge, it's gone... [it's] walking out the door."
AI Anxiety	"Human-in-the-loop" decision trees rather than "Black Box" automation.	"They fear it will phase me out of a job... [Kiami is] not like buying a truck."

Chapter 5: Case 2 -The Billable Hour

Can AI Capture Intangible Value?

Late in the afternoon of November 30, 2025, Llana McCowan, principal of Wild Oat Consulting Inc., an Alberta-based IT and HR systems consultancy, sat at her desk reviewing her calendar and inbox as the fiscal year drew to a close. Month-end invoicing was a familiar ritual: tallying billable hours, cross-checking project notes, and ensuring every entry had documented proof. It was the kind of process consultants pride themselves on, structured, defensible, and precise.

Yet as McCowan stared at the spreadsheet, the numbers felt heavier than they looked. Behind each hour was a judgment call about value, effort, and fairness. For her, invoicing wasn't just arithmetic; it was a moment of reckoning. "It's such an emotional decision," she reflected, staring at a line item for a long-standing client. The manual process forced her to relive the month's frustrations and favors. "I've got some clients... this is my 20th year with them, so I tend to be a little bit more forgiving." Conversely, for difficult interactions, the calculation changed: "If you pissed me off, and I'm doing this again for the seventh time... I'll consider that when I bill." This monthly "reckoning" was becoming untenable. "The last thing I feel like doing is sitting and reflecting... that's a lot of effort," she admitted. "It probably takes me close to 4 hours every month to go back and reflect on what I did."

McCowan viewed time management as a core consulting competency and identified that her back-office processes needed modernization to keep pace with her firm's demands.

"My time has a dollar value assigned to it all the time," she noted. "Burnout happens when you consistently rob yourself. And that frustration, the stress about robbing yourself... You will eventually get to a burnout stage."

Facing this burnout, McCowan was preparing for an internal strategic review of her operations. For 17 years, she had operated successfully on a reputation-based model, but the administrative burden of her "Time and Materials" contracts was unsustainable. With the recent emergence of Gen AI tools like Microsoft Copilot, which she had already begun using to "rewrite some of my emails, just as a... kind of a test", McCowan faced a critical decision. Rather than adopting AI as a productivity shortcut, McCowan used these tools to test where they fit alongside her own professional skills. McCowan believed AI performed best when work could be reduced to clear inputs and outputs. “If AI could have access to my calendar, my emails, my meetings,” she said, “then AI could do the billing for me. It’s very binary.”

Yet billing rarely felt binary in practice. “It’s such an emotional decision,” she explained. Long-standing clients were treated differently from difficult engagements, and context mattered. “If I know a clients already offended,” she noted, “that’s going to affect how I bill.”

While AI could capture timestamps and activity, McCowan questioned whether it could interpret tone, intent, or relationship history. “They’re not going to pick up tone and cadence,” she said. “That’s the part that actually gives you a reflection of the conversation.”

She needed to determine the most effective path to mitigate her operational overhead before the fiscal year closed. She had set a hard deadline to implement a new process by January 1, 2026, ensuring the new year would start with a clean slate.

This decision carried weight beyond mere efficiency. As a software implementation expert, McCowan felt a professional imperative to master the tools reshaping her industry. Adopting AI wasn't just a convenience; it was a necessary evolution to maintain her credibility as a technologist. Yet, the risk weighed on her: "The more we allow technology to replace us in doing things, the more we lose that skill. And that, I think, is the big risk."

Company Background

McCowan founded her consultancy in 2006, transitioning from a role in payroll and HR software implementation to independent contracting. Disillusioned with the "body shop" model of large agencies, she established a sole proprietorship focused on deep partnership and knowledge transfer. "My mantra is to work myself out of a contract," McCowan stated. "I've taught you everything, I've given you all the knowledge for you to be successful, I've celebrated in your success, and... done."

With minimal overhead and no employees, the firm enabled McCowan to maintain a premium billing rate (approximately $175/hour). She supported a portfolio of five active clients, spanning major corporate entities and smaller non-profit organizations. The firm’s reliance on hourly billing necessitated a high level of detail to substantiate charges for client auditors.

Industry & Regulatory Context

McCowan operates within the Canadian management consulting industry, a $26.2 billion market characterized by a sharp divide between large multinational firms (e.g., Deloitte, KPMG) and a long tail of independent consultants and solopreneurs (IBISWorld Inc, 2025). While the industry is growing at approximately 1.4% annually, independent consultants face structural pressures that large firms do not, particularly in pricing power, compliance burden, and access to administrative support. Geographic concentration further compounds these challenges: Ontario captures 48.1% of national consulting revenue, leaving consultants in Western Canada to compete in smaller, more fragmented markets (Mordor Intelligence, 2025).

Unlike large firms, independent consultants must personally absorb the administrative, regulatory, and reputational risks associated with billing accuracy, audit defense, and client relationship management. Large professional services firms diffuse these functions across

internal legal, finance, and compliance teams, whereas solopreneurs are required to perform them alongside revenue-generating work (Bomal & Cruz, 2025; OECD, 2019). This structural asymmetry increases sensitivity to non-billable administrative time and helps explain why productivity-enhancing technologies such as artificial intelligence are often framed as necessities rather than optional efficiencies for independent practitioners (IBISWorld Inc, 2025).

The "Personal Services Business" (PSB) Risk

Beyond client demands, McCowan detailed time-tracking practices were shaped by the Canada Revenue Agency's (CRA) distinction between independent contractors and Personal Services Businesses (PSBs). Under Canadian tax rules, a corporation may be classified as a PSB if the individual providing services is found to be working in a manner similar to an employee rather than as an independent business. Such a classification carries significant financial consequences, including higher effective tax rates and the loss of many business deductions (Canada Revenue Agency, 2022).

As a result, consultants often rely on detailed timesheets and billing records to demonstrate independence by showing distinct deliverables, irregular working hours, and results-based work. Within this regulatory environment, automating away billing detail is not simply an efficiency decision, but a potential compliance risk that could expose small firms to tax and audit challenges (BDC.CA, 2020).

The AI Productivity Gap in SMEs

While large Canadian finance and insurance firms have reached 30.6% AI adoption, small and medium-sized enterprises (SMEs) generally lag behind, with only 12.2% of all Canadian businesses using AI for goods or services delivery (Valerie Bryan et al., 2025). However, trends indicate a shift: 25% of Canadian SMEs plan to adopt Gen AI within the next three years to

combat labor shortages and administrative overhead (Canadian Federation of Independent Business, 2025). McCowan's consideration of AI places her at the forefront of this shift for micro-consultancies.

The Information Systems Challenge

The core operational bottleneck was the "month-end reconstruction." McCowan estimated that she spent approximately four hours per month on non-billable administrative documentation. At her standard billing rate, this translated into roughly $700 per month in lost revenue potential, or approximately $8,400 annually. Beyond this direct financial cost, the manual reconstruction process introduced recall bias and emotional friction, often resulting in conservative billing decisions and under-recovery of the full value of her work.

McCowan's hesitation toward automation was shaped by past experiences with technology replacing human judgment rather than supporting it. "It's no different than when calculators came in," she said. "The more we allow technology to replace us in doing things, the more we lose that skill." She illustrated this concern with an example closer to home. Her husband, a mechanic, had observed a junior technician replacing brakes while following AI-generated instructions. "There were several huge safety steps missing," McCowan recalled. "Now we're going to have AI mechanics and the risk of that is significant." For Llana, the issue was not that AI inevitably makes errors, but that overreliance can normalize incomplete understanding. Once judgment is deferred to the system, gaps in knowledge may go unnoticed. "Once the skill is gone," she said, "you don't even know what you're missing."

The challenge was further complicated by the type of work she performed. Instead of producing tangible deliverables, much of McCowan's value lay in intangible efforts, such as mentoring, offering strategic insight, and helping manage crises. She explained that billing

decisions were often emotional and varied according to the circumstances surrounding each engagement. Clients with decades-long relationships sometimes received additional hours at no charge as a gesture of goodwill.

Potential Strategic Initiatives

McCowan identified three distinct strategic initiatives to address this problem. She needed to evaluate these based on cost, feasibility, and alignment with her firm's ethical and regulatory obligations.

1. AI-Driven Billing Automation

This initiative proposed implementing a custom or off-the-shelf AI tool (e.g., Timely, Otter.ai, or Microsoft Copilot) to parse McCowan's digital footprint, calendar invites, email timestamps, and chat logs and automatically generate invoices. McCowan believed AI performed best when work could be reduced to clear inputs and outputs. “If AI could have access to my calendar, my emails, my meetings,” she said, “then AI could do the billing for me. It’s very binary.”

In practice, however, billing rarely felt binary. “It’s such an emotional decision,” she explained. Long-standing client relationships were treated differently from difficult engagements, and situational context shaped how value was assessed. “If I know a clients already offended,” she noted, “that’s going to affect how I bill.” While AI could reliably capture timestamps and activity, McCowan questioned whether it could interpret tone, intent, or the history of a relationship. “They’re not going to pick up tone and cadence,” she said. “That’s the part that actually gives you a reflection of the conversation.”

From an operational standpoint, the primary business driver behind this initiative was efficiency and billing accuracy, with the goal of reducing administrative time from

approximately four hours per month to less than thirty minutes. However, technical constraints complicated implementation. McCowan's primary client imposed strict limitations on third-party AI integrations within corporate systems due to security and compliance concerns; features such as Microsoft Teams summarization remained disabled because the organization had not yet determined how AI technologies might introduce risk.

The financial implications were also nontrivial. Initial setup was estimated to require approximately twenty hours of non-billable configuration time, representing an opportunity cost of roughly $3,500, in addition to an ongoing subscription expense of approximately $50 per month. More fundamentally, McCowan identified a “trust deficit” as the central risk of this option. She worried that an automated system would be unable to distinguish between casual interaction and billable strategic counsel. As she put it, “It’s certainly not going to capture the emotion of a word.”

2. Business Model Pivot: Flat-Fee Retainers

This initiative involved renegotiating contracts with key clients to transition from hourly billing to a fixed monthly fee structure, such as $3,000 per month for up to twenty hours of work. The primary motivation behind this option was administrative simplification, as a flat-fee arrangement would eliminate the need for detailed line-item justification and month-end reconstruction. However, practical constraints limited its feasibility. Large corporate clients often require hourly billing and detailed audit trails for compliance purposes, reducing flexibility in contract design.

From a regulatory perspective, the model introduced additional risk. A fixed monthly payment resembling a salary could increase the likelihood of being classified as a Personal Services Business (PSB) by the Canada Revenue Agency, as it mirrors the characteristics of an

employment relationship. Implementing this approach would also require a moderate upfront investment of time, with contract renegotiations estimated to take between five and ten hours per client, although it would not introduce any recurring monetary costs.

Beyond regulatory exposure, McCowan identified the risk of scope creep as a significant concern. Without the discipline imposed by hourly tracking, clients might demand work that exceeded the agreed value, gradually eroding the effective hourly rate and undermining the financial sustainability of the arrangement.

3. Status Quo Optimization (The "Human" Approach)

This option maintained the existing manual billing process, accepting its cost as a necessary trade-off to preserve high-trust client relationships and ensure regulatory compliance. The primary rationale for this approach lay in ethical precision, relationship management, and the ability to defend billing practices during audits. However, these benefits came with clear constraints. The process required a continued investment of non-billable time and personal effort, resulting in an ongoing loss of billable hours.

From a cost perspective, this approach required no upfront investment, but it imposed a recurring opportunity cost of approximately $700 per month in foregone revenue. Over time, the cumulative effect of this burden heightened the risk of burnout, as the friction associated with month-end billing remained a persistent and emotionally taxing stressor.

The Decision

McCowan reviewed the three strategic initiatives with increasing clarity about the trade-offs involved. AI-driven billing automation offered the promise of efficiency and reduced administrative burden, but it was constrained by client security restrictions and her concern that algorithmic tools could not accurately capture the emotional nuance and contextual judgment

embedded in her work. The flat-fee retainer model simplified invoicing but introduced significant regulatory and financial risk, particularly the possibility of heightened scrutiny under the CRA's Personal Services Business framework. Maintaining the status quo preserved legal defensibility and ethical control, yet continued to impose a recurring cost in lost billable time and personal strain.

McCowan was forced to confront a deeper question about the nature of professional value. She needed to decide whether her billing challenge was fundamentally an information systems problem that technology could streamline, or a structural issue rooted in the limitations of the billable hour when applied to intangible, relationship-driven consulting work. With a self-imposed implementation deadline of January 1, 2026, she could no longer treat this as a conceptual exploration or a future experiment. She had to determine which billing approach would govern her practice from the start of the new fiscal year and how responsibility for documenting and valuing her work would be allocated between herself and any supporting systems. Each option required accepting a different set of trade-offs related to operational sustainability, regulatory compliance, and professional judgment. The decision she made would shape not only how her time was recorded and billed, but also how defensible and sustainable her consulting practice would be going forward.

Conclusion

McCowan dilemma illustrated the growing tension between efficiency-driven digital tools and the human judgment required in professional services. While AI offered compelling productivity gains, its inability to interpret context, emotion, and discretionary value raised concerns about fairness, trust, and compliance in a tightly regulated environment. At the same time, alternative pricing models challenged long-standing norms, but they also introduced new

risks that could undermine financial stability and tax positioning. As Gen AI adoption accelerated across small firms, McCowan's decision underscored a broader question facing independent consultants: whether emerging technologies could meaningfully support, rather than oversimplify, the valuation of intangible work. The choice she faced was not merely about saving time, but about defining how expertise, trust, and professional judgment would be measured in an increasingly automated economy.

Table 11

Comparative Analysis of Billing Initiatives: AI Automation, Retainer, and Status Quo

Metric	AI Automation	Retainer Model	Status Quo
Primary Goal	Maximize Billable Efficiency	Eliminate Admin Process	Maintain Control
Setup Cost	High ($3,500 + software)	Moderate (Negotiation)	None
Recurring Cost	Low ($50/month)	None	High ($700/month lost time)
Technical Risk	High (Client Firewalls)	Low	Low
Regulatory Risk (CRA)	Low (Maintains Detail)	High (Resembles Salary)	Low (Defensible)
Ethical Risk	High (Algorithm Errors)	Low	Low

Table 12

The Intangible Value Gap: AI-Logged vs. McCowan-Billed Activity

Activity Description	Actual Time	AI Logged Value	McCowan Billed Value	Variance Justification
Emergency System Patch (Saturday)	2.0 Hours	2.0 Hours	4.0 Hours	Disruption Premium: Weekend work disruption.
Mentoring Junior Staff	1.5 Hours	1.5 Hours	0.5 Hours	Goodwill Discount: Long-term relationship investment.
Repetitive Data Entry	3.0 Hours	3.0 Hours	3.0 Hours	Standard: Transactional work.
Total	6.5 Hours	6.5 Hours	7.5 Hours	+1.0 Hour Intangible Value

Teaching Note Case 2

Case Summary

This case examines the operational and strategic dilemma faced by Llana, principal of Wild Oat Consulting Inc., an Alberta-based IT and HR systems consultancy, as she confronts the sustainability of the billable-hour model in the context of emerging Gen AI technologies. With nearly two decades of experience as an independent consultant, Llana has built a successful reputation-based practice serving a small portfolio of long-term clients, including large corporations and non-profit organizations. Her business relies almost exclusively on time-and-materials contracts, requiring detailed monthly documentation to satisfy client audits and regulatory scrutiny.

As the fiscal year drew to a close in November 2025, Llana found herself increasingly burdened by the administrative demands of month-end invoicing. Although time tracking was essential for legal defensibility—particularly to mitigate the risk of reclassification as a Personal Services Business (PSB) under Canada Revenue Agency rules—the process consumed approximately four hours of non-billable time each month and introduced emotional strain. Billing decisions required her to reconcile intangible contributions such as mentorship, crisis management, and goodwill discounts with the rigid structure of hourly accounting.

At the same time, the rapid emergence of Gen AI tools, such as Microsoft Copilot, presented a potential solution to automate and streamline billing processes by reconstructing work activity from digital artifacts. However, client security restrictions, regulatory concerns, and Llana's skepticism about AI's ability to interpret context and discretionary value complicated adoption. Alternative options, including shifting to flat-fee retainers or maintaining the status quo, offered simplicity or control but introduced their own financial, ethical, and regulatory risks.

Facing mounting burnout and a self-imposed deadline of January 1, 2026, Llana had to decide whether her challenge was fundamentally a technology problem that automation could resolve, or a deeper structural issue rooted in how professional value is measured. The case places students at this decision point, asking them to evaluate competing strategic responses under constraints of trust, compliance, and intangible labor valuation.

Learning Objectives

By working through this case, students should be able to:

1. Analyze how professional sensemaking shapes AI adoption decisions when lived experience conflicts with efficiency-driven technology narratives.
2. Distinguish between codifiable and tacit forms of knowledge and assess how their misalignment affects the feasibility and design of AI-enabled systems.
3. Evaluate how different approaches to valuing professional labor influence incentives, behavior, burnout risk, and long-term strategic positioning.
4. Formulate and defend a strategic decision that balances efficiency, ethics, regulatory compliance, and client trust under conditions of uncertainty.

Table 13

Case 2 Learning Objectives, Core Concepts, and Case Application

Learning Objective	Core Concepts	Case Application
LO1 Sensemaking and AI adoption	Sensemaking, experiential knowledge, narrative construction, cognitive framing	Llana's belief that AI works best with "binary" inputs conflicts with her lived experience of emotional and relational billing decisions.
LO2 Knowledge boundaries in automation	Codified vs. tacit knowledge, Knowledge-Based View, limits of automation	AI reconstruction of calendars and emails vs. Llana's discretionary judgment about tone, intent, and relationship history

LO3 Strategic valuation of professional work	Value measurement, incentives, professional identity, and burnout	Hourly billing, algorithmic billing, and flat-fee retainers create different behaviors and stress profiles for the same underlying work
LO4 Judgment under institutional constraint	Institutional theory, regulatory compliance, legitimacy, risk trade-offs	CRA PSB rules, client security policies, and audit defensibility constrain which efficiency gains are strategically acceptable

Theoretical Linkages

This case draws on multiple theoretical perspectives to help students evaluate AI adoption decisions in professional services settings where efficiency, judgment, and institutional constraints intersect. Rather than using theory to identify a single "correct" solution, the case encourages students to treat these frameworks as complementary lenses for interpreting Llana's decision context and the trade-offs embedded in each strategic option.

Sensemaking theory is central to the case and explains how Llana constructs meaning around Gen AI based on her prior experience as a systems implementation consultant. Her belief that AI performs best when work can be reduced to "binary" inputs reflects a plausible and internally consistent narrative grounded in her professional identity. However, this sensemaking framework begins to fracture when applied to billing, where emotional labor, discretionary judgment, and long-standing client relationships shape how value is assessed. The case invites students to examine not whether Llana's interpretation of AI is right or wrong, but why it feels credible and how it guides her hesitation under uncertainty.

The Knowledge-Based View (KBV) further clarifies the limits of automation in this context by distinguishing between codifiable knowledge and tacit, relational knowledge embedded in professional practice. While AI tools can reconstruct calendars, emails, and timestamps, they struggle to capture tone, intent, goodwill, and crisis management—elements

that materially influence Llana's billing decisions. From a KBV perspective, the case highlights the strategic risk of misclassifying tacit judgment as data that can be reliably automated, particularly in professional services where value is often created through interaction rather than output.

Transaction Cost Economics provides an additional lens for understanding why efficiency gains from automation may not translate into superior outcomes. Llana's detailed time-tracking and hourly billing practices function as safeguarding mechanisms that reduce audit risk and support regulatory defensibility. Although AI-driven billing promises to lower administrative coordination costs, it may simultaneously increase other transaction costs by weakening monitoring, accountability, or justification in the event of disputes. Students are therefore prompted to assess whether automation reduces total transaction costs or merely shifts them into less visible but potentially more consequential domains.

Institutional and regulatory theory explains why certain options remain strategically infeasible despite their apparent simplicity. Canada Revenue Agency Personal Services Business rules, client security policies, and audit requirements impose legitimacy constraints that limit Llana's freedom to redesign her billing model. These institutional pressures help students understand why decisions in professional services are often shaped less by technical optimality and more by compliance, trust, and risk avoidance. The case thus reinforces the distinction between solutions that are efficient in theory and those that are viable in practice.

Finally, the case engages ethical perspectives on AI and professional responsibility by raising questions about the delegation of value judgments to algorithmic systems. Allowing AI to determine what counts as billable work introduces concerns about fairness, transparency, and the erosion of professional discretion. Errors in automated billing are not merely technical failures

but ethical ones, particularly when they affect client trust or undercut the practitioner's own valuation of their expertise. Through this lens, students are encouraged to debate whether efficiency gains justify shifting moral and professional accountability from humans to machines.

Table 14

Case 2 Learning Objectives, Theoretical Frameworks, and Suggested Readings

Learning Objective	Theoretical Framework	Key Readings
LO1 Analyze sensemaking processes in AI adoption decisions	Sensemaking Theory: Expert Judgment Under Uncertainty	Sensemaking in organizations (Weick, 1995). The AI of the beholder: Intra-professional sensemaking of an epistemic technology. (Scarbrough et al., 2025)
LO2 Distinguish between codifiable and tacit knowledge in automation contexts	Knowledge-Based View of the Firm: Tacit Knowledge	Toward a knowledge-based theory of the firm. (R. M. Grant, 1996). From automats to algorithms: The automation of services using artificial intelligence (Meyer et al., 2020).
LO3 Evaluate how valuation methods shape professional behavior and outcomes	Professional Services Pricing; Incentive Alignment; Strategic Value Measurement	Legal practice on time: The ethical risk and inefficiency of the six-minute unit. (James, 2017). Soul for Sale: An Empirical Study of Associate Satisfaction, Law Firm Culture, and the Effects of Billable Hour Requirements (Fortney, 2000).
LO4 Make defensible decisions under regulatory and institutional constraints	Institutional Theory; Transaction Cost Economics; Legitimacy	Integrating transaction cost and institutional theories: Toward a constrained-efficiency framework (Roberts & Greenwood, 1997). The use of AI in legal systems: Determining independent contractor vs. employee status (Cohen et al., 2023).

Relevant Courses

This case is designed primarily for upper-level undergraduate courses in business and management that examine technology use, professional judgment, and decision-making under

real-world constraints. It is especially well-suited for courses that emphasize applied analysis rather than technical system design.

The case fits well within Management Information Systems and Business Technology courses, where students explore how information systems support—or fail to support—organizational processes and professional work. It allows students to evaluate AI not as a technical artifact, but as a socio-technical system shaped by human judgment, organizational rules, and institutional constraints.

It is also appropriate for Strategy and Policy courses at the undergraduate level, particularly those focused on decision-making under uncertainty, trade-offs between efficiency and control, and the role of regulation in shaping strategic options. The case enables students to analyze how seemingly rational solutions may be constrained by compliance, legitimacy, and risk considerations.

In Entrepreneurship and Small Business Management courses, the case highlights challenges faced by independent professionals and micro-firms, including resource scarcity, administrative burden, and burnout. Students can examine how strategic choices around pricing, automation, and business models affect sustainability in solo and small-scale ventures.

Finally, the case can support Professional Ethics or Business and Society courses by prompting discussion about the ethical implications of delegating judgment and value assessment to AI systems. The billing dilemma provides a concrete context for exploring responsibility, fairness, and trust in human–AI collaboration.

Suggested Teaching Approaches

This case is designed to support discussion-based learning and judgment development in upper-level undergraduate courses. It works best when students are encouraged to reason through

trade-offs rather than search for a single optimal solution. The teaching approaches below can be adapted depending on class size, course emphasis, and time constraints.

Decision-Focused Class Discussion (75–90 minutes)

The case is well-suited for a single class session centered on Llana's decision point. Instructors may begin with a brief recap of the billing dilemma and ask students to individually identify which option they would recommend before class discussion begins. This helps surface intuitive reactions and provides a baseline for later reflection.

Class discussion can then progress through three stages:

(1) diagnosing the problem (technology issue vs. structural or regulatory issue),

(2) evaluating the three strategic options using course concepts, and

(3) defending a recommendation under constraints of compliance, trust, and professional judgment.

This approach supports learning objectives related to sensemaking, knowledge boundaries, and judgment under uncertainty, while keeping the discussion grounded in concrete operational details.

Small-Group Analysis and Reporting

For larger classes, instructors may divide students into small groups and assign each group one of the three strategic initiatives (AI automation, flat-fee retainers, or status quo optimization). Groups analyze their assigned option using one or two theoretical lenses (e.g., KBV or institutional theory) and report back to the class.

This structure encourages comparison across options and helps students see that no solution is universally dominant. It also reinforces the idea that strategic decisions are shaped by context and constraint, not just technical feasibility.

Short Written Assignment (Individual or Group)

The case lends itself well to a short-written assignment, such as a 2–3-page recommendation memo or briefing note. Students are asked to recommend a course of action, justify their choice using course concepts, and explicitly acknowledge the trade-offs and risks they are accepting.

This format reinforces analytical rigor while remaining accessible to undergraduates. Instructors may choose to emphasize clarity of reasoning and defensibility rather than depth of theoretical citation.

Comparative Reflection Exercise

To deepen learning, instructors may ask students to reflect on how their recommendation would change if one constraint were removed (e.g., no CRA PSB risk, no client security restrictions, or a larger firm with administrative staff). This counterfactual exercise helps students distinguish between structural limits and managerial choice, reinforcing systems thinking without requiring advanced theory.

Common Teaching Pitfalls to Anticipate

Students may initially assume that AI automation is the "obvious" solution or underestimate the persistence of regulatory and institutional constraints. Others may propose flat-fee billing without recognizing its compliance implications. Instructors can use these moments to redirect discussion toward why seemingly rational solutions may be strategically infeasible, reinforcing the core learning objectives of the case.

Course Integration

While the case can stand alone, it also works well as a recurring reference point across a course. Instructors may revisit the case when discussing AI adoption, professional ethics,

regulation, or decision-making under uncertainty, allowing students to re-interpret the dilemma as their conceptual toolkit expands.

Research Methods

This case is based on an unstructured interview with the case protagonist, conducted following approval under a University of Lethbridge research ethics protocol before data collection. Primary data were gathered through an in-depth interview focused on the participant's lived experience with billing practices, AI experimentation, and professional judgment in an independent consulting context. Follow-up clarification questions were conducted via email to verify factual details and ensure accuracy of interpretation.

The interview data were supplemented with publicly available industry reports, government statistics, and regulatory guidance documents to provide contextual grounding and external reference points. These sources were used to situate the protagonist's experience within broader trends related to AI adoption among small firms, professional services pricing, and Canadian regulatory constraints, particularly those related to independent contractors and Personal Services Business classification.

Analysis & Discussion Questions

Question 1: Is Llana's billing challenge primarily a technology problem, a structural business model problem, or a regulatory problem? (LO1)

Exemplar analysis

Evidence in the case suggests that Llana's challenge cannot be attributed to a single domain. Technological limitations play a role, particularly the inability of AI systems to capture tone, context, and relational judgment embedded in professional billing decisions. While AI tools

can reconstruct timestamps and activities, they fall short in interpreting discretionary value, supporting the view that technology alone cannot resolve the dilemma.

Structural factors also strongly shape the problem. The billable-hour model requires detailed documentation and retrospective reconstruction, which introduces emotional strain and non-billable administrative effort. However, alternative pricing structures, such as flat-fee retainers, introduce new risks related to scope creep and perceived employment relationships.

Regulatory constraints further complicate the issue. CRA Personal Services Business rules and client audit requirements limit Llana's freedom to simplify billing practices. These institutional pressures suggest that even structurally attractive or technologically efficient solutions may be strategically infeasible. Overall, the evidence supports a multi-causal interpretation, where regulatory and structural constraints dominate, and technology acts as an imperfect but tempting partial remedy.

Instructor guidance and common pitfalls

Students often try to identify a single "root cause." Instructors should encourage recognition of overlapping constraints and emphasize that managerial problems often persist precisely because they span multiple domains. A common mistake is treating regulatory constraints as optional or easily circumvented rather than structurally binding.

Question 2: To what extent can AI systems meaningfully capture the value of Llana's professional work? (LO2)

Exemplar analysis

The case provides compelling evidence that AI systems can reliably capture codifiable aspects of Llana's work, such as meeting durations, email activity, and documented tasks. These elements align well with AI's strength in pattern recognition and data aggregation. From this

perspective, AI offers genuine potential to reduce the administrative effort associated with billing reconstruction.

However, the evidence also indicates clear limits. Much of Llana's value creation occurs through tacit and relational activities, including mentoring, crisis management, and goodwill-based adjustments for long-standing clients. These elements rely on contextual judgment and emotional awareness that AI systems are not designed to interpret. The "Intangible Value Gap" exhibit illustrates how AI-logged activity may diverge significantly from billed value.

Overall, the evidence supports a partial application of AI rather than full delegation. AI may assist with documentation and recall, but it cannot independently determine what should be billed without risking misevaluation.

Instructor guidance and common pitfalls

Students may assume that improved data quality automatically leads to better valuation. Instructors should stress the distinction between measurement and judgment. A frequent error is equating what can be counted with what counts.

Question 3: How do different valuation methods shape Llana's behavior, incentives, and risk of burnout? (LO3)

Exemplar analysis

The case shows that valuation methods do more than determine revenue; they shape professional behavior and emotional outcomes. Under hourly billing, Llana experiences recurring emotional strain as she revisits interactions and makes discretionary judgments about fairness and goodwill. This process contributes to burnout despite maintaining regulatory defensibility.

AI-driven billing promises efficiency but introduces new behavioral risks. Delegating billing reconstruction to an algorithm may reduce administrative time, but it could also distance Llana from reflective judgment, potentially eroding her sense of professional control and ethical responsibility.

Flat-fee retainers simplify billing but alter incentives by encouraging clients to extract maximum value from a fixed payment, increasing the risk of scope creep. The evidence suggests that each valuation method reallocates stress and risk rather than eliminating it, reinforcing the idea that pricing is a strategic choice with behavioral consequences.

Instructor guidance and common pitfalls

Students often frame pricing decisions as purely financial. Instructors should redirect attention to how valuation mechanisms influence identity, motivation, and long-term sustainability. A common mistake is assuming that removing time tracking automatically reduces burnout.

Question 4: Which strategic option should Llana pursue, and which risks must she consciously accept? (LO4)

Exemplar analysis

A defensible recommendation requires acknowledging that no option eliminates risk entirely. Maintaining the status quo preserves regulatory compliance and ethical precision but sustains ongoing non-billable labor and burnout risk. AI-assisted billing offers efficiency gains but introduces trust, compliance, and misevaluation risks. Flat-fee retainers simplify processes but heighten regulatory exposure and scope ambiguity.

A well-supported recommendation often involves a hybrid approach, such as selectively using AI for recall and documentation while retaining human judgment over billing decisions.

This approach accepts some efficiency limitations in exchange for preserving trust and compliance. The key analytical task is not identifying a "best" option, but articulating which risks are acceptable and why.

Instructor guidance and common pitfalls

Students may search for a risk-free solution. Instructors should emphasize that strategic judgment involves choosing which risks to manage rather than which to eliminate. A common pitfall is recommending AI adoption without specifying boundaries or governance mechanisms.

Chapter 6: Case 3 - Cratic AI

The Search for Product-Market Fit

Israel Beck, founder and CEO of Cratic AI, stared at the feedback loop data on his screen. It was October 2025, and while the company had cash and customers, Beck felt a familiar, gnawing restlessness. To an outsider, Cratic AI exampled a successful app: early pilots were delivering shocking results, with teams seeing “eNPS” scores jumping 50 points in weeks. But to Beck, the puzzle was not solved.

He was not interested in just keeping the lights on or growing incrementally. He was passionate about finding true Product-Market Fit (PMF), that magical state where the market pulls the product out of your hands because the solution nails the need exactly right.

"That’s why people like me do what we do," Beck thought, reflecting on the friction he still felt in meetings. "We’re obsessed with nailing the solution exactly right for the market needs. And right now, we have the solution, but we haven't nailed the market."

Beck seen that he had developed a transformative technology, yet he felt a structural disconnect in how many organizations interpreted its value. Although the platform was designed to address the underlying drivers of team performance, he found that some leaders struggled to link its “soft” behavioral inputs to the “hard” operational outcomes it influenced. This gap, he felt, reflected a deeper misalignment in mental models between the product’s design and the way organizations traditionally measured success.

To Beck, the question was no longer whether the technology worked, early adopters had demonstrated its impact but how to communicate its value in a way that would enable the market to recognize and adopt it at scale. Achieving genuine product–market fit required committing to a single strategic direction and determining which combination of product design and target

market represented the most credible path forward. At its core, the decision came down to two contrasting approaches: whether to adapt the product to fit the market's existing mental models, or to educate the market so it could understand the product's intended value. In either case, Beck needed to decide which path offered the most sustainable route to aligning the problem, the solution, and the customers who needed it most.

Cratic AI: The Concept

Cratic AI was established as an AI enabled organizational culture platform designed not only to measure team dynamics but also to support their improvement (Cratic AI, 2026a). The system engages teams through weekly, anonymous question and answer cycles and applies natural language processing to identify patterns and generate tailored prompts intended to enhance familiarity, trust, and vulnerability.

In contrast to many employee experience management (EXM) tools that primarily provide dashboards or sentiment metrics, Cratic AI is positioned as an intervention-oriented technology. Its focus is on influencing communication behaviors within teams rather than solely reporting perceptions or attitudes (Cratic AI, 2026b).

Financial Pressure of Scaling

While the platform's recent rebuild had improved the technology and early pilots were delivering "shocking" results, Beck recognized a critical disparity in the marketplace. He observed that Cratic AI often lost ground to inferior competitors simply because "their marketing is beautiful" and backed by budgets large enough to dominate the narrative. Securing external financing could provide the "Tom Brady" level of promotion needed to educate the market on the future of culture, but it presented a distinct trade-off. Currently owning the "whole business," Beck feared that bringing in venture capital might compromise his vision. He worried that

investors, driven by shorter timelines, might pressure him to pivot toward the "shiny toy" features executives bought impulsively, rather than the deep, structural intervention the product was designed to deliver.

The Adoption Paradox

Although Cratic AI had achieved strong results within adopting organizations supported by positive feedback and measurable improvements, Beck also encountered a small subset of prospective buyers who did not proceed with adoption. The following examples reflect only this limited group and are not intended to represent the broader market response. For these non-adopting organizations, Beck perceived a disconnect between the platform's demonstrated effectiveness and the market's ability to interpret its underlying value. He viewed the issue not as a limitation of the software but as a misalignment of mental models. Beck described the experience of presenting a forward-looking solution to organizations grounded in more traditional paradigms as feeling "like a lunatic," and he frequently employed the analogy of "the engineer that's inventing a motherboard and explaining it to a company back in the 1980s" to convey the conceptual gap he observed. In these cases, he felt that some leaders had been "pulling on the same levers for so long" that they lacked the framework to understand a fundamentally different approach.

This friction was further reinforced by a divergence between what the platform required and what many buyers appeared to prefer. Cratic AI depended on sustained behavioral change and increasing levels of vulnerability for the intervention cultural change to function as intended. Beck observed, however, that organizations gravitated toward more superficial or low commitment solutions. He illustrated this challenge through humor, using a joke to capture his sense of mismatch between the depth of intervention needed and the lightweight solutions some

buyers sought. Beck's experience was that he was offering a long term, relationship focused intervention to stakeholders who were instead looking for a short term, low investment remedy.

He further noted that organizational leaders sometimes favored simple visible but limited activities such as "pizza parties" over complex structural interventions, reflecting a gap in understanding about how "a software tool can actually unlock the dynamic between the people."

Even when adoption occurred, the company faced an attribution dilemma. Beck described the benefits of the platform as a "splatter effect" fixing so many diffuse variables that the original root cause became invisible. This led to a phenomenon where client leadership co-opted the results. "Success has many fathers, but failure is an orphan," Beck noted. In one instance, a client whose stock price surged following the intervention dismissed Cratic AI's role entirely, frustrating Beck to say, "We had nothing to do with that?".

Finally, another company struggled to identify who the decision-maker is with both the leverage and the longevity to champion the tool. Beck described Human Resources as a strategic "dead end," noting that HR leaders who refused to listen to their superiors were often "fired, like, 3 or 4 or 5 months later" because they lacked the leverage to fix the business challenges. Conversely, operational executives while possessing the necessary budget and authority often treated the platform like the "shiny toy" syndrome. They would engage enthusiastically at first, but "as soon as we start getting results, they're bored, and they move on to the next thing," leaving Beck "banging on the glass" trying to prove that the problem was being solved.

The Founder's Journey

Beck's path was not typical. A former successful strategist consultant for Fortune 500 companies, he had spent years obsessed with the mechanics of why teams failed. He realized that strategy was not the problem; culture was. "I realized I was effectively unpacking these people's

minds," Beck recalled his successful consulting days. "I was obsessed with the mechanics of team success."

He spent nearly a decade building Cratic AI not to build a company, but to solve that specific problem. Now, in 2025, the machine was built. It worked. But the market had not caught up to the machine. Beck's obsession had now shifted from *building* the solution to *fitting* it into a world that did not yet understand it needed it.

Teaching Note Case towards

Summary

This case examines the strategic dilemma faced by Israel Beck, founder and CEO of Cratic AI, an Alberta-based organizational culture platform that uses Gen AI to measure and improve team dynamics. By October 2025, Beck had successfully built a functioning technology platform with demonstrated impact during early pilots showed employee Net Promoter Scores (eNPS) improving by 50 points within weeks. However, despite these validated results, Beck confronted a fundamental challenge: the market's inability to recognize and categorize Cratic AI's value proposition.

Cratic AI occupied a liminal space between existing product categories. It was neither a traditional employee engagement survey tool nor a conventional learning management system, but rather an intervention-oriented technology designed to influence communication behaviors and team dynamics. This categorical ambiguity created what Beck termed "the motherboard problem"—he was offering a sophisticated, structural solution to organizations that conceptualized culture through simplistic frameworks like "pizza parties" and one-off events.

The case places students at a critical strategic inflection point. Beck had achieved technical validation and early customer success yet faced three interconnected challenges: (1) buyer confusion about what category Cratic AI belonged to, (2) attribution problems where clients co-opted success while dismissing the platform's role, and (3) difficulty identifying economic buyers with sufficient authority and longevity to champion sustained adoption. With ownership of the entire business and concerns about maintaining vision integrity, Beck had to decide whether to educate the market about a new category, reposition into an existing category, or narrow the target segment to buyers already prepared for behavioral interventions.

The decision carried significant implications for Cratic AI's growth trajectory, competitive positioning, and Beck's ability to maintain control while scaling. The case asks whether Beck should commit to category creation and market education, pivot to fit existing mental models, or focus on a narrower segment of sophisticated early adopters, and how each path would affect the company's ability to achieve genuine product-market fit.

Learning Objectives

After completing this case, students should be able to:

1. Diagnose category equivocality and its effects on adoption, scaling decisions, and go-to-market strategy for novel AI-enabled products.
2. Evaluate go-to-market options when a product's value mechanism is "soft" (behavioral, relational) but produces operationally meaningful outcomes.
3. Apply sensemaking theory (identity construction, analogy, extracted cues, social validation) to analyze product-market fit challenges in emerging technology categories.
4. Assess strategic trade-offs between market education, category repositioning, and segment narrowing when facing categorical illegibility.

Table 15

Case 3 Learning Objectives, Core Concepts, and Case Application

Learning Objective	**Core Concepts**	**Case Application**
LO1: Diagnose category equivocality	Category formation, cognitive framing, market sensemaking	Beck's "motherboard" analogy and the gap between platform capabilities and buyer mental models

LO2: Evaluate go-to-market options	Product-market fit, positioning strategy, market entry timing	Decision between educating market, repositioning product, or narrowing target segment
LO3: Apply sensemaking theory	Identity, analogy, extracted cues, social proof	How buyers construct meaning around "AI culture" without stable category templates
LO4: Assess strategic trade-offs	Resource allocation, competitive positioning, founder control	Balancing vision integrity against market readiness and funding pressures

Theoretical Linkages

This case integrates multiple theoretical perspectives to help students analyze strategic decision-making when a product achieves technical validation but faces market categorical ambiguity. Israel Beck is presented as a credible, experienced founder with deep domain expertise in organizational culture and team dynamics. His interpretations of market resistance are grounded in years of consulting experience and direct observation of buyer behavior. The case deliberately juxtaposes his expert narrative with the reality of buyer confusion, attribution problems, and category uncertainty to create analytical tension.

Sensemaking Theory is central to understanding why buyers struggle to interpret Cratic AI's value. Under conditions of categorical equivocality, decision-makers lack stable mental models to make sense of novel offerings. Beck's experience of feeling "like a lunatic" and his "motherboard" analogy reflect his recognition that buyers are engaging in sensemaking without adequate category cues. Unlike Cases 1 and 2 where sensemaking stabilized into avoidance

narratives, Case 3 illustrates ongoing sensemaking without retention as buyers cannot settle on a stable interpretation because no appropriate category exists. Students can examine how identity (Beck as inventor vs. pragmatist), analogy (motherboard, pizza parties), and extracted cues (marketing aesthetics vs. pilot results) shape the construction of product-market fit.

Category Formation Theory provides a framework for understanding the strategic choice between category creation, category entry, and segment focus. The case illustrates what happens when a technology enables new capabilities that existing categories cannot accommodate. Cratic AI's "intervention-oriented" positioning defies conventional employee experience management categories, creating the ambiguity that both differentiates the product and impedes its adoption. Students can analyze the costs and benefits of committing to category education versus repositioning into existing categories that buyers already understand.

Product-Market Fit Theory is complicated in this case by the distinction between technical validation and categorical legitimacy. Early pilots demonstrated that the technology worked, yet Beck explicitly states that he had not achieved "true Product-Market Fit" as defined as the market pulling the product because the solution nails the need exactly right. This reveals that product-market fit is not merely a technical or functional achievement but requires alignment between product capabilities, buyer mental models, and category expectations.

Resource Dependence and Founder Control introduce the tension between scaling and vision integrity. Beck's concern that venture capital might compromise his "obsession with nailing the solution" reflects the resource dependence challenge where external funding may bring pressure to pivot toward "shiny toy" features that attract quick sales but undermine the platform's core value. Students can evaluate how control preferences constrain strategic options and whether maintaining ownership is compatible with achieving market education at scale.

Diffusion of Innovations Theory explains why early pilot success does not automatically translate to broader adoption. The case demonstrates that innovators and early adopters (who are willing to experiment without category clarity) represent a limited segment, and crossing the chasm requires either category stabilization or repositioning to fit mainstream mental models. Beck's frustration with HR as a "dead end" and operational executives treating the platform as a "shiny toy" illustrates the challenge of identifying appropriate adoption champions.

Table 16

Case 3 Learning Objectives, Theoretical Frameworks, and Suggested Readings

Learning Objective	**Theoretical Framework**	**Key Readings**
LO1: Diagnose category equivocality	Category Formation Theory; Cognitive Framing	“Category stretching: Reorienting research on categories in strategy, entrepreneurship, and organization theory” (Durand & Paolella, 2013); “How new market categories emerge: Temporal dynamics of legitimacy, identity, and entrepreneurship” (Navis & Glynn, 2010)
LO2: Evaluate go-to-market options	Product-Market Fit Theory; Positioning Strategy	"The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses" (Ries, 2011); "Crossing the Chasm" (Moore, 2014)
LO3: Apply sensemaking theory	Sensemaking; Technology-	"Sensemaking in Organizations" (Weick, 1995); "Technology-Triggered Sensemaking: A Theoretical Framework" (Griffith, 1999)

	Triggered Sensemaking	
LO4: Assess strategic trade-offs	Resource Dependence Theory; Founder Control; Strategic Decision-Making	"Resource Dependence Theory: A Review" (Hillman et al., 2009); "The Founder's Dilemmas" (Wasserman, 2008)

Intended Courses

This case is appropriate for MBA and MSc courses in Entrepreneurship, Technology Management, Innovation Strategy, and Digital Transformation. It enables instructors to move beyond technical product development and focus instead on the strategic challenges of bringing novel AI-enabled products to market when category clarity is absent. The case is particularly effective for exploring the tension between product innovation and market readiness, the challenges of category creation, and the founder's role in managing product-market fit ambiguity.

The case is also well-suited to executive education programs that emphasize go-to-market strategy, positioning decisions, and the evaluation of growth versus control trade-offs. It provides a structured setting for analyzing when to educate versus when to adapt, a dilemma common in emerging technology markets. In capstone or integrative courses, the case supports synthesis across entrepreneurship, marketing, and strategy, allowing instructors to revisit the same decision context as new analytical lenses are introduced.

Suggested Teaching Approaches

Option 1: 80-Minute Class (Decision-Focused Discussion)

In an 80-minute format, the case functions effectively as a decision-centered discussion emphasizing strategic trade-offs. The session begins with a brief case recap and clarification of Beck's three strategic options: (1) educate the market to create a new category, (2) reposition Cratic AI to fit existing categories, or (3) narrow the target segment to sophisticated early adopters. Students work in small groups to evaluate each option using course concepts, then reconvene for plenary discussion. The session concludes with a decision vote and instructor synthesis highlighting how different assumptions about market readiness and resource constraints lead to divergent recommendations. This format is well-suited for entrepreneurship or innovation courses where time is limited, and the emphasis is on structured debate.

Option 2: 110-Minute Class (Framework Application and Sensemaking Analysis)

In a 110-minute class, the case supports deeper theoretical engagement with sensemaking and category formation. After establishing the decision context, the instructor introduces sensemaking theory as a lens for understanding why buyers struggle to interpret Cratic AI's value. Students work in groups to map specific case evidence to sensemaking properties—Beck's "motherboard" analogy (retrospection), buyer preference for "pizza parties" (extracted cues), the attribution dilemma (ongoing negotiation without retention). The extended time allows for richer discussion of how categorical equivocality differs from institutional and professional equivocality and the implications for strategy. This format is appropriate for graduate-level courses emphasizing analytical rigor and theory application.

Option 3: 170-Minute Class or Major Assignment (Integrative Analysis)

In longer formats or capstone courses, the case serves as the foundation for a major assignment or multi-session project. Students develop a comprehensive go-to-market recommendation for Cratic AI that integrates sensemaking theory, category formation strategy,

and resource dependence considerations. Deliverables may include a positioning strategy memo, a market education plan with resource requirements and timeline, or an investor presentation framed as advice to Beck. This approach is particularly effective in integrative entrepreneurship or consulting courses where the goal is to synthesize theory, evidence, and strategic judgment under conditions of categorical ambiguity.

Across all approaches, the case encourages students to respect founder expertise while analytically examining where market interpretation diverges from technical reality, to recognize that product-market fit requires categorical alignment as well as functional efficacy, and to articulate recommendations that explicitly acknowledge uncertainty, trade-offs, and risk.

Research Methods

This case is based on an unstructured interview with Israel Beck, conducted following approval under a University of Lethbridge research ethics protocol before data collection. Primary data were gathered through an in-depth interview focused on the participant's lived experience with product development, market positioning, and buyer sensemaking in an AI-enabled culture platform context. Follow-up clarification questions were conducted via email to verify factual details and ensure accuracy of interpretation.

The interview data were supplemented with publicly available company materials, industry reports on employee experience management platforms, and diffusion research on technology adoption to provide contextual grounding and external reference points. These sources were used to situate the protagonist's experience within broader trends related to AI adoption in HR tech, category formation challenges for B2B software, and founder decision-making under resource constraints.

Analysis & Discussion Questions

Question 1: What evidence in the case suggests that Cratic AI has achieved technical viability but not yet product-market fit? (LO1)

Exemplar Analysis

Evidence of technical validation is strong and well-documented in the case. Early pilots delivered "shocking results" with eNPS scores jumping 50 points in weeks. The platform functioned as designed, producing measurable improvements in team dynamics and engagement. Beck had successfully built and deployed a working technology that solved the problem he set out to address.

However, evidence of product-market fit, as Beck defines it, "where the market pulls the product out of your hands because the solution nails the need exactly right", is notably absent. Several indicators support this conclusion: (1) buyer confusion about what category Cratic AI belongs to, (2) the need for Beck to actively explain and educate rather than respond to inbound demand, (3) attribution problems where clients dismissed the platform's role in their success, (4) difficulty identifying economic buyers with both authority and longevity to champion adoption, and (5) Beck's own statement that "we have the solution, but we haven't nailed the market."

This distinction is crucial: technical validation confirms the product works, while product-market fit confirms the market recognizes and demands that value. The case demonstrates that these are separate achievements, and the gap between them creates the central strategic dilemma.

Instructor Guidance and Common Pitfalls

Students often conflate technical success with market success. Instructors should push students to distinguish between "it works" and "they want it," using Beck's own definition of product-market fit as the standard. A common mistake is assuming that positive pilot results

automatically translate to scalable demand without examining the cognitive work required from buyers to understand the value proposition.

Question 2: How does categorical equivocality differ from institutional and professional equivocality? (LO3)

Exemplar Analysis

The three varieties of equivocality, institutional, professional, and categorical. These illustrate how diverse sources of ambiguity trigger distinct sensemaking patterns and strategic responses.

Institutional equivocality centers on legitimacy, whether the institutional environment supports adoption through stable policy, funding mechanisms, and social proof. When grant programs are suspended or policy signals are volatile, AI adoption becomes institutionally illegitimate regardless of technical merit. Decision-makers encounter "polite silence" from prospects who wait for external validation before acting. This form of equivocality leads to strategic paralysis, where the firm knows the solution works but cannot generate traction because the surrounding institutional infrastructure fails to legitimate adoption. The sensemaking outcome is typically avoidance or pivot consideration as the firm either waits indefinitely for institutional clarity or abandons the market for jurisdictions with more supportive environments.

Professional equivocality centers on identity and jurisdiction, whether adopting a technology threatens core professional values and boundaries. When algorithmic tools encroach on domains where practitioners define their expertise through discretionary judgment, emotional intelligence, or craft skill, adoption becomes identity-threatening rather than merely technically challenging. Professionals may acknowledge that the technology functions while resisting implementation because it undermines their sense of "who we are" and what makes their work

valuable. This form of equivocality leads to defensive retention of manual processes, where the status quo is preserved not because it is efficient but because it enacts professional identity and maintains jurisdictional control over valued work.

Categorical equivocality centers on recognition, whether buyers have mental models to interpret what the product is and does. Unlike institutional or professional equivocality, the barrier is not resistance based on external constraints or identity threat, but the absence of stable interpretive frameworks. When a product does not fit existing categories, buyers cannot settle on an interpretation because no appropriate category exists. The founder faces ongoing sensemaking without retention, buyers cycle through possible interpretations ("Is this a survey tool? An LMS? A coaching platform?") without stabilizing into a coherent understanding. This differs fundamentally from institutional and professional equivocality, where sensemaking *does* stabilize or just into avoidance narratives.

This difference has critical strategic implications. Institutional equivocality can be addressed through legitimacy-building activities: securing reference customers, navigating policy frameworks, or generating social proof. Professional equivocality can be addressed through identity-safe framing that positions technology as amplifying rather than replacing professional judgment. Categorical equivocality, however, cannot be resolved through these mechanisms because the problem is not legitimacy or identity but *recognition*. It requires either category creation (expensive, time-consuming, requiring significant capital and marketing resources), category entry (repositioning into existing categories with the risk of commoditization and loss of differentiation), or segment focus (targeting only those buyers who already possess sophisticated mental models, limiting market size). The "motherboard" analogy captures this

fundamental asymmetry: a sophisticated solution offered to buyers with primitive conceptual frameworks cannot achieve product-market fit regardless of technical efficacy.

Instructor Guidance and Common Pitfalls

Students may treat all three forms of equivocality as examples of "market resistance" or "buyer skepticism." Instructors should guide comparison across the three types, emphasizing that while the mechanism ESR is constant, the content of ambiguity differs and therefore requires distinct strategic responses.

A common error is suggesting that categorical equivocality can be resolved through "better marketing" without recognizing that marketing effectiveness depends on category clarity. Marketing communicates value within existing mental models; it cannot substitute for missing category frameworks. Students should be pressed to articulate specifically *how* marketing would overcome the recognition problem, and when they cannot, to acknowledge that category creation requires different resources and timelines than promotional campaigns.

Another pitfall is conflating technical validation with categorical legitimacy. Students may argue that strong pilot results prove product-market fit, ignoring that fit requires not just functional efficacy but buyer comprehension. Instructors should push students to distinguish between "it works" and "they understand what it is and why they need it."

Question 3: Evaluate the three strategic options available to Beck. Which risks must he consciously accept with each? (LO2, LO4)

Exemplar Analysis

Option 1: Educate the Market (Category Creation)

This option involves committing resources to establishing "AI-enabled culture intervention" as a recognized category. The strategy requires significant investment in thought

leadership, case study development, and buyer education. The primary risk is time and capital—category creation is expensive and slow, and Beck's concern about venture capital compromising his vision reflects the funding pressure this path entails. There is also the risk of educating the market for competitors who enter the category later with better-resourced marketing. However, successful category creation offers substantial rewards: first-mover advantage, pricing power, and the ability to define category standards.

Option 2: Reposition into Existing Category (Category Entry)

This option involves reframing Cratic AI to fit existing buyer mental models, positioning as an "employee engagement platform" or "team analytics tool" rather than an intervention-oriented culture platform. The risk is commoditization and loss of differentiation: Cratic AI's structural, behavioral focus would be compressed into familiar but less powerful categories, potentially making it indistinguishable from survey tools. This path also risks attracting the wrong buyers as those seeking "pizza party" solutions rather than genuine transformation, which could lead to implementation failure and negative word-of-mouth. The benefit is faster sales cycles and reduced education burden.

Option 3: Narrow the Target Segment (Focus Strategy)

This option involves focusing exclusively on sophisticated early adopters who already understand the need for behavioral intervention and are prepared to engage with novel approaches. The risk is market size limitation as this segment may be too small to support scalable growth or attract external investment. However, the benefit is categorical clarity within the segment: these buyers have the mental models to recognize Cratic AI's value without extensive education. Success in this segment could create the reference base and social proof needed for broader expansion later.

A defensible recommendation often involves a hybrid or sequenced approach: beginning with the narrow segment to generate proof points and revenue, then using those resources to fund gradual market education toward broader category creation.

Instructor Guidance and Common Pitfalls

Students often gravitate toward category creation as the "pure" strategy without acknowledging resource constraints, or toward repositioning as the "pragmatic" choice without acknowledging differentiation loss. Instructors should push students to explicitly articulate which risks they are accepting with each recommendation. A common error is recommending market education without specifying the funding mechanism and timeline or recommending repositioning without analyzing how it affects competitive positioning.

Question 4: How should Beck balance his desire to maintain ownership and vision integrity against the need for resources to achieve market education? (LO4)

Exemplar Analysis

Beck's concern that venture capital might pressure him toward "shiny toy" features represents a genuine tension between founder control and scaling requirements. Evidence in the case supports both sides of this dilemma: on one hand, Beck's "obsession with nailing the solution" has produced technically validated results, suggesting that maintaining control preserves product integrity. On the other hand, the case notes that Cratic AI "lost ground to inferior competitors simply because their marketing is beautiful," suggesting that under-resourced marketing is a binding constraint.

A well-supported analysis recognizes that this is not simply a financial decision but a strategic one about category timing. If Beck believes the market is ready for category creation, then securing resources (even with dilution) may be necessary to establish leadership before

competitors do. If he believes the market is not yet ready, then maintaining control while building the narrow segment may be preferable to premature scaling.

The analysis should also consider alternatives to traditional venture capital: strategic partnerships with HR consultancies who could serve as channel partners and category co-educators; grant funding for innovation; or revenue-funded growth from the narrow segment. Each alternative carries different control implications and timeline expectations.

Ultimately, the recommendation should articulate the conditions under which Beck should consider external capital (e.g., achieved milestones in the narrow segment, identified repeatable sales motion) versus the conditions under which he should maintain control (e.g., market education timeline exceeds competitive window, category clarity remains distant).

Instructor Guidance and Common Pitfalls

Students often frame this as a binary choice between "selling out" and "staying pure." Instructors should guide students toward contingent recommendations that specify milestones, conditions, and alternative funding mechanisms. A common pitfall is assuming that venture capital is the only scaling option or that control preservation is always preferable to accelerated market development.

Instructor Alignment Note

Instructors are encouraged to emphasize that this case is not designed to challenge or discredit the founder's expertise. Israel Beck is presented as a credible and seasoned practitioner whose judgments are shaped by years of consulting experience, successful technology development, and deep domain knowledge in organizational culture. His perspective is therefore both reasonable and influential within the context of the case.

The pedagogical objective is not to ask whether Beck is "right or wrong" in his assessment of market readiness, but to examine how categorical ambiguity interacts with technical validation to create strategic dilemmas. By juxtaposing Beck's conviction about his solution with evidence of buyer confusion and attribution problems, the case creates space for students to analyze how category formation challenges constrain growth even when product efficacy is demonstrated.

Instructors may wish to underscore that the primary learning value of the case lies less in the specific strategic choice (educate, reposition, or focus) and more in the quality of reasoning students bring to evaluating that choice. The case illustrates how even technically validated products can face genuine market barriers when categorical clarity is absent. Analytical frameworks should therefore be framed as sensemaking tools rather than definitive solutions. Different lenses may illuminate various aspects of Beck's dilemma, and divergent student recommendations can be equally defensible when grounded in transparent assumptions, appropriate evidence, and coherent logic.

The case invites students to reflect on their own assumptions about product-market fit as whether it is primarily a technical achievement, a marketing challenge, or a category formation problem and to practice grounding strategic recommendations in the best available evidence while acknowledging uncertainty. By reinforcing that disciplined thinking, rather than identifying a single correct answer, is the central objective, instructors can use the case to model how real-world strategic decisions are made in emerging and uncertain contexts.

Exhibits

Table 17

The Categorical Ambiguity Matrix: Cratic AI vs. Adjacent Categories

Dimension	**Traditional Employee Engagement**	**Learning Management Systems**	**Cratic AI Position**
Primary Function	Measure sentiment/attitudes	Deliver training content	Influence communication behaviors
Time Orientation	Point-in-time surveys	Scheduled courses	Continuous intervention
Outcome Focus	Reporting metrics	Completion/certification	Behavioral change
Buyer's Mental Model	"Check the pulse"	"Train the skills"	"Transform the dynamics"
Implementation Depth	Shallow (survey deployment)	Medium (content integration)	Deep (norm and behavior change)

Table 18

Cratic AI Pilot Results vs. Market Recognition Gap

Evidence of Efficacy	**Evidence of Categorical Illegibility**
50-point eNPS improvements	Buyers asking, "Is this a survey tool?"
Reduced team conflict	HR treating platform as "nice to have"
Faster decision-making	Operational executives viewing as "shiny toy"

Improved retention indicators	Attribution: "Success has many fathers"
Strong user engagement	Difficulty identifying economic buyer with longevity

Table 19

Strategic Option Comparison: Educate, Reposition, or Narrow

Dimension	**Educate the Market**	**Reposition to Existing Category**	**Narrow the Segment**
Investment Required	High (time, capital, marketing)	Medium (repositioning, messaging)	Low (focused sales)
Timeline to Scale	Long (category creation)	Short (existing demand)	Medium (reference building)
Differentiation Risk	Low (category leadership)	High (commoditization)	Medium (segment focus)
Control Preservation	Low (likely requires VC)	Medium	High (organic growth possible)
Vision Integrity	High (original concept intact)	Low (compressed to fit category)	Medium (narrow but pure)
Primary Risk	Running out of resources before category forms	Attracting wrong buyers, implementation failure	Market size too limited

Table 20

Cratic AI Timeline of Key Events

Phase	Timeframe	Key Event
Concept Development	2015–2016	Beck's top 500 consulting work reveals culture as strategic problem
Platform Development	2016–2024	Nearly decade-long development of Cratic AI technology
Rebuild & Pilot Launch	Early 2025	Platform rebuild; early pilots demonstrate efficacy
Market Engagement	Mid-2025	Buyer confusion, attribution problems, buyer identification challenges emerge
Decision Point	October 2025	Case dilemma: path to product-market fit unclear despite technical validation

Chapter 7: Discussion

7.1 What the Findings Explain

The analysis of three Alberta-based consultants confirms the central paradox observed in national adoption statistics. Gen AI technologies demonstrate clear value potential among early adopters yet remain widely constructed as irrelevant or unmanageable by non-adopters. However, the cross-case comparison reveals that the imagination gap identified in Canadian AI adoption work is not a uniform cognitive deficit but rather the outcome of three distinct sensemaking trajectories triggered by different varieties of equivocality (McKay, 2025).

The barrier to adoption is fundamentally interpretive rather than structural. When Wes Paterson confronts a frozen grant landscape, when Llana McCowan evaluates algorithmic billing, or when Israel Beck pitches culture transformation, each face's what Weick terms equivocality, not a lack of information, but an excess of possible meanings. Their divergent strategic outcomes, market pivot consideration, status quo retention, and product-market fit struggle cannot be explained by resource disparities, as all three operate with similar constraints as micro-firm owner-operators in Alberta's knowledge-intensive professional services sector. Rather, they reflect how the ESR cycle stabilises interpretations of AI that construct the strategic environment each leader consequently navigates (Tsoukas et al., 2020).

This chapter proceeds as follows. Section 7.2 identifies three shared interpretive mechanisms, identity, analogy, and extracted cues, that operate across all cases to filter which aspects of AI become salient. Section 7.3 traces how the ESR cycle functions as a lock-in mechanism that stabilises non-adoption as a durable strategic outcome. Section 7.4 differentiates three varieties of equivocality institutional, professional, and categorical that activate different sensemaking properties and produce distinct strategic trajectories. Section 7.5 connects these

sensemaking patterns to concrete strategic consequences and knowledge-based implications. Section 7.6 extends the analysis from individual firm-level interpretation to systemic, sector-level competitive dynamics. Sections 7.7 and 7.8 present the theoretical contributions and practical implications, and Section 7.9 summarises the central finding.

7.2 Cross-Case Sensemaking Patterns: How "AI Relevance" Is Built

Across the three cases, leaders resolve equivocality through a consistent set of interpretive resources that filter which aspects of AI become salient and which are ignored. These resources, professional identity, retrospective analogy, and selectively extracted cues are not neutral information-processing tools but active meaning-making mechanisms that shape what AI *is* within each leader's constructed reality. Together, they address the first secondary research question: What interpretive resources do SME leaders use to resolve the equivocality of Gen AI?

7.2.1 Identity as the Primary Filter.

Consistent with work on identity-centred sensemaking (Brown et al., 2015), each leader's self-concept determines the plausibility of AI adoption. This finding aligns with research showing that SME leaders assess technology not merely on functionality but on whether adoption aligns with "who we are" as a firm (Carayannis et al., 2024). In all three cases, identity functions as a pre-interpretive filter that determines which aspects of AI are noticed, which are ignored, and what adoption framings are deemed plausible.

Wes Paterson enacts his identity as an "administrator" and "connector" operating on the "people side of industrial implementation" (Case 1), leading him to interpret AI through institutional legitimacy cues rather than technical capabilities. His identity commitment to being the intermediary who understands the Alberta market amplifies cues of Canadian institutional

voids the Canada-Alberta Job Grant freeze, "polite silence" from municipal directors, comparative anecdotes about U.S. velocity while filtering signals of U.S. market viability until they become overwhelming. When a peer reports generating approximately $2 million in U.S. revenue compared with $60,000 in Canada for equivalent work, Paterson acknowledges the contrast but continues to pursue the Canadian "tipping point" strategy, because abandoning Canada would threaten his identity as an Alberta market insider who understands the institutional landscape. His framing of Kiami as a tool to "amplify, not replace" human expertise directly mirrors his identity as someone who values people over technology: "we are the true operator."

Similarly, Llana McCowan's professional identity as an expert consultant delivering "deep partnership" (Case 2) renders algorithmic billing implausible not because it is technically infeasible, but because it threatens her identity as a craftsperson exercising emotional judgment. Her mantra "to work myself out of a contract" defines her as a relationship-driven expert, and billing represents the most identity-laden dimension of that relationship. She describes billing as "an emotional decision" where twenty-year client relationships receive discretionary adjustments: "If you pissed me off, and I'm doing this again for the seventh time… I'll consider that when I bill." AI adoption becomes acceptable only when framed as consistent with her identity as a knowledge-transferring partner. She acknowledges that "If AI could have access to my calendar, my emails, my meetings… then AI could do the billing for me. It's very binary." Yet she simultaneously recognises that "they're not going to pick up tone and cadence," the affective dimensions that define her professional self-concept.

Israel Beck's identity as an obsessive inventor and self-described "lunatic" (Case 3) frames his relationship with the market differently. Having spent nearly a decade building Cratic AI not to build a company but to solve a specific problem, his identity is invested in solving the

problem correctly, not in market legibility. His “motherboard” analogy “the engineer that’s inventing a motherboard and explaining it to a company back in the 1980s” positions him as a visionary ahead of his time rather than a founder with a product-market fit challenge. When prospects gravitate toward “pizza parties” rather than structural interventions, Beck interprets this as a buyer limitation rather than a signal to reframe his value proposition. The inventor identity is preserved at the cost of market adaptation.

Across all three cases, the analysis reveals that AI adoption decisions are not rational cost-benefit calculations but identity-performance acts: leaders adopt, avoid, or modify AI engagement based on whether it sustains or threatens the professional self-narrative they have constructed. This is consistent with Gupta and Yang’s (2024) finding that identity-threatening interpretations can rationalise avoidance even in the presence of credible performance evidence.

7.2.2 Analogical Compression.

All three leaders rely on retrospective analogy to reduce equivocality, though with different referents that shape their perceived opportunity space (Farina & Lavazza, 2023; Maitlis & Christianson, 2014). These analogies function as cognitive shortcuts that, while reducing uncertainty, compress the perceived use-case space and suppress experimentation with Gen AI’s full capabilities (Fjader, 2021; Sandberg & Tsoukas, 2015). Each analogy maps the novel Gen AI onto the familiar, making the technology interpretable but simultaneously limiting what leaders believe it can do.

Paterson’s analogy emerges not from his own framing but from a prospect’s response. A municipal director told him: “Wes, I’m getting backlash for putting in a traffic circle. Could you imagine we implement a system like this?” This analogy maps AI adoption onto infrastructure

projects perceived as risky and politically dangerous, selecting an interpretation of institutional risk aversion. Once adopted into Paterson's own narrative, the traffic circle analogy compresses Kiami's potential: rather than evaluating the platform's specific maintenance capabilities, the prospect and subsequently Paterson treats AI adoption as equivalent to any controversial public infrastructure change.

McCowan deploys the calculator analogy with explicit anxiety about de-skilling: "It is no different than when calculators came in. The more we allow technology to replace us in doing things, the more we lose that skill." This maps Gen AI onto a historical technology universally understood as replacing manual calculation of a specific, low-judgment skill thereby framing AI as similarly limited. The analogy is reinforced by her husband's observation of a junior mechanic following AI-generated brake repair instructions that missed "several huge safety steps." Her conclusion "Once the skill is gone, you don't even know what you're missing" forecloses exploration of AI for complex judgment tasks by pre-categorising all AI as a de-skilling tool.

Beck employs the "motherboard" analogy to frame his current challenge as a historical pattern of visionary technology that eventually achieves recognition. This analogy selects an interpretation that implies patience rather than adaptation is the correct response. When buyers offer "pizza parties" when his product requires sustained behavioural change, the motherboard analogy frames resistance as a temporary education gap rather than a signal that his product-market positioning needs adjustment.

Critically, these analogies are not neutral, they are selected retrospectively because they confirm prior identity commitments (Maitlis & Christianson, 2014). Traffic circles confirm institutional risk; calculators confirm de-skilling threat; motherboards confirm visionary timing.

Each analogy simultaneously solves the immediate anxiety of ambiguity and creates longer-term strategic rigidity by compressing what Whittle et al. (2023) describe as the space of "what becomes thinkable" in organisational sensemaking.

7.2.3 Extracted Cues Over Objective Data.

Contrary to evidence-based decision-making models, leaders prioritise extracted cues that confirm plausibility over accuracy (H. Kaur et al., 2022). Under high equivocality, data does not speak for itself, it is selectively noticed and arranged into narratives that preserve identity and prior commitments.

Paterson extracts the cue "polite silence" from prospects rather than engaging with productivity statistics or Kiami's demonstrated performance data from Israeli implementations. When a prospect tells him they are "looking at about 500 different AI tools right now," Paterson does not extract this as a competitive differentiation challenge requiring sharper positioning. Instead, he extracts it as confirmation that the market is overwhelmed and defaulting to "status quo." The absence of an explicit "no" is interpreted as institutional blockage rather than a pricing, timing, or positioning issue.

McCowan extracts "tone and cadence" from client interactions as the critical input for billing decisions rather than efficiency metrics or time-tracking data. She selectively attends to the emotional texture of relationships whether "a clients already offended," whether she is doing something "for the seventh time" while filtering out the quantifiable elements that AI could process. Her own estimate of approximately $8,400 in annual lost revenue from the manual billing process receives less interpretive weight than the affective dimensions of client relationships.

Beck extracts “pizza party” preferences from HR buyers rather than engaging with his own pilot outcome data showing employee Net Promoter Scores jumping fifty points within weeks. Even when a client’s stock price surged following Cratic AI’s intervention, client leadership dismissed the platform’s role entirely “Success has many fathers, but failure is an orphan.” Beck extracts this attribution problem as proof of market immaturity rather than exploring whether his value communication strategy needs revision.

This pattern demonstrates that under high equivocality, the real constraint is interpretation rather than the amount of available information (H. Kaur et al., 2022). All stakeholders have access to data that could plausibly support alternative conclusions, yet the cues they select consistently reinforce existing identity-based narratives. As Ubellacker (2025) observes, in the absence of trusted social cues, ambiguity tends to resolve conservatively, making “wait-and-see” interpretations easier to maintain.

7.3 Why Non-Adoption Persists: ESR as Lock-In Mechanism

The endurance of non-adoption interpretations reflects the ESR cycle’s capacity to reinforce self-confirming realities, whereby uncertainty is resolved by repeatedly interpreting Gen AI as misaligned with the firm’s needs and identity. This section traces the full cycle across all three cases, addressing the second secondary research question: How do early enactments with Gen AI (or its avoidance) become selected and retained as stable organizational narratives that resist disconfirmation?

7.3.1 Enactment: Early Encounters Constrain Perception.

In all three cases, initial enactments with AI (or its institutional context) delimit the range of subsequent possibilities. These early encounters illustrate Damayanti and Atmoko’s (2023)

finding that initial experimentation shapes subsequent understanding, particularly when leaders engage in low-risk trials that inadvertently narrow the perceived use-case space.

Paterson's early enactments involved grant applications and bureaucratic encounters, literally enacting an environment where Canadian adoption appears institutionally blocked (Case 1). His sales approach centred on the "tipping point" strategy, securing a government-co-funded pilot through mechanisms like the Emissions Reduction Alberta (ERA) tailings challenge. This enactment made his entire pipeline dependent on the very institutional mechanisms that were frozen. When the Canada-Alberta Job Grant was suspended, removing approximately $10 million in training support from the Alberta market, his prospects treated this as "a valid excuse to halt all decision-making on new training platforms." The institutional void did not merely remove money it removed the mental cue that made AI adoption institutionally legible, and Paterson's enactment strategy ensured he experienced this void directly and repeatedly.

McCowan's enactment involved testing Microsoft Copilot for email rewriting a deliberately low-risk trial that enacted AI as a "binary," low-judgment tool (Case 2). By selecting one of the simplest and most structured tasks in her workflow, she generated an experience that confirmed her pre-existing belief that AI is suited only for basic, rule-bound work. Because she did not experiment with billing, client judgment, or other higher-ambiguity tasks, the trial reinforced a narrow interpretation of AI's capabilities. In effect, the enactment produced the very evidence that later served as justification for constraining AI to "binary" applications

Beck's early pilots enacted a more complex dual reality (Case 3). On one hand, they produced "shocking results," eNPS scores jumping fifty points within weeks, demonstrating that the technology worked as designed. On the other hand, they simultaneously enacted buyer

confusion, as prospects cycled through possible interpretations ("Is this a survey tool? An LMS? A coaching platform?") without stabilising on a coherent understanding. The enactment produced technical validation without market comprehension, creating what Beck experienced as the equivocality of proven efficacy alongside categorical illegibility.

7.3.2 Selection: Plausibility Over Accuracy.

Selection processes rapidly narrow multiple possible interpretations to a single "official" narrative. These selections follow the sensemaking principle of plausibility over accuracy (Weick, 1995) as they need only be reasonable enough to support action, not empirically comprehensive. As Kaur et al. (2022) demonstrate, in equivocal settings, interpretation not information volume is the constraint; what matters is which meanings are selected as prominent and which are ignored.

Paterson selects "Canada is slow/grant-dependent" as the plausible story, rejecting alternative interpretations such as "our pricing model misaligns with Canadian procurement cycles" or "our positioning does not differentiate against 500 competitors", because these alternatives would threaten his identity as a competent market lead who understands the Alberta landscape. The selected narrative preserves his professional self-concept while explaining the lack of traction in terms of external institutional failure rather than internal strategic limitation. It is plausible, locally coherent, and identity-consistent, precisely what Weick's framework predicts leaders will select under equivocality.

McCowan selects "billing is emotional art, not data science," a narrative that preserves her professional jurisdiction over the most identity-laden part of her work. This selection acknowledges AI's potential for binary tasks "If AI could have access to my calendar, my emails,

my meetings… it's very binary" while drawing a firm boundary at emotional and relational judgment "they're not going to pick up tone and cadence." The selection partitions her work into an automatable domain, where AI is acceptable and a protected domain, where AI encroachment would threaten her identity, rather than evaluating whether AI could serve as a preliminary tool that she then refines with professional judgment.

Beck's case is analytically distinctive because selection does not stabilise. The market cycles through possible interpretations without settling on a coherent understanding of what Cratic AI is, and Beck himself oscillates between "the market needs educating" and "the product needs repositioning." His "motherboard" analogy functions as a provisional selection, a temporary narrative that explains market resistance as a timing problem, but it lacks the self-reinforcing quality of Paterson's and McCowan's selections because the market does not validate it.

7.3.3 Retention: Embodiment and Path Dependence.

Once selected, interpretations become embedded in routines and material structures that resist disconfirmation. This retention creates path dependence: the longer the interpretation persists, the more costly it becomes to reframe, as accumulated evidence is retroactively fitted to the initial narrative (Sandberg & Tsoukas, 2015). This explains why Ahmad et al. (2024) find that AI integration creates learning curves that become increasingly difficult to overcome, early retention forecloses future exploration.

Paterson retains the "Canada is slow" narrative through repeated conversations with grant-dependent prospects; the narrative becomes embedded in his strategy documents, investor pitches, and how he describes the competitive landscape to Kiami's Israeli headquarters. Each

retelling reinforces the interpretation. His conclusion that "innovation sees they don't have a market in Canada, and they go down to the U.S., and they build the company" becomes a generalised narrative that extends beyond Kiami to all Canadian innovation, a retention so thorough that it shapes not just his strategy but his worldview about the two countries' innovation cultures.

McCowan retains manual billing through monthly "reckoning" rituals that, while burdensome, consuming approximately four hours per month and representing roughly $8,400 annually in lost revenue, enact the identity of the careful professional who exercises judgment. The retention mechanism is particularly self-reinforcing: the manual process itself forces emotional engagement with each client relationship, producing the very affective data that McCowan then cites as evidence that billing requires emotional judgment. The longer she maintains the process, the more evidence she accumulates that billing is emotional art, because the manual process is designed to produce emotional engagement. The ritual creates the evidence that justifies the ritual.

Beck's case is distinctive because retention fails. Unlike Paterson and McCowan, who achieve relatively stable (if strategically constraining) interpretations, Beck remains in perpetual enactment, unable to select and retain a category narrative that the market accepts. This produces strategic oscillation, alternating between educating the market (retaining the "motherboard" inventor interpretation) and pivoting the product (abandoning it). The failure of retention is itself analytically significant: it demonstrates that ESR lock-in is not inevitable but depends on whether the selected narrative receives sufficient external validation to become self-sustaining.

7.4 Case Comparisons: Three Varieties of Equivocality

While the ESR mechanism is constant across cases, the content of equivocality differs, activating distinct sensemaking properties and producing divergent strategic outcomes (Merhi & Harfouche, 2024). This section addresses the fourth secondary research question: How does the decision context shape the specific cues and plausibility structures that dominate sensemaking? The analysis identifies three varieties of equivocality, institutional, professional, and categorical, each triggering different sensemaking properties. This extends Griffith's (1999) work on technology-triggered sensemaking by specifying how the type of category disruption shapes the intensity and direction of sensemaking efforts.

Case 1: Institutional Equivocality (Kiami).

When equivocality centres on institutional legitimacy, grants, policy volatility, provincial versus federal signals, sensemaking is dominated by social cues and enactment (Weick, 1995). Paterson's interpretation hinges on extracted institutional signals: the Canada-Alberta Job Grant freeze, "polite silence" from municipal directors, and comparative anecdotes about U.S. velocity. His strategic paralysis in the Canada versus U.S. pivot dilemma, reflects legitimacy-seeking behaviour under conditions of institutional voids (Suchman, 1995).

The ESR cycle here produces a strategic hold pattern: waiting for external validation that never arrives, constructing an environment where Canada appears "naturally" slower while U.S. opportunities are enacted as "playing to win." The grant suspension did not merely remove approximately $10 million in training support. It removed a mental cue that made AI adoption institutionally legible for Paterson's prospects, validating his "Canada is slow" narrative. Resolution requires legitimacy mechanisms, reference customers, policy certainty, peer proof, rather than technical demonstrations. Paterson needed a "proof point" in Alberta more than he needed technical specifications.

Case 2: Professional Equivocality (Billable Hour).

When equivocality centres on professional jurisdiction and identity, can algorithms exercise professional judgment? As sensemaking is dominated by retrospective processing and identity protection. McCowan's reliance on the calculator analogy and her distinction between "binary" and "emotional" work reflects retrospective sensemaking that protects tacit knowledge domains from automation encroachment.

The ESR cycle here produces defensive retention: the status quo is retained not because it is efficient, but because it enacts professional identity and ensures CRA defensibility. The result is strategic inertia, the maintenance of a four-hour monthly billing ritual that induces burnout but preserves her professional "self." McCowan frames this trade-off explicitly: "Burnout happens when you consistently rob yourself… but the more we allow technology to replace us in doing things, the more we lose that skill." She accepts burnout as the cost of identity preservation. Resolution requires identity-safe framing, AI positioned as "judgment amplification" rather than "automation." McCowan might adopt AI billing if framed as enhancing her judgment rather than replacing it.

Case 3: Market-Category Equivocality (Cratic AI).

When equivocality centres on market category definition are "AI culture" a recognisable product category? sensemaking is dominated by ongoing processes and plausibility struggles (Weick, 1995). Beck faces category-spanning ambiguity (Griffith, 1999) as his platform is neither a pulse survey nor an LMS nor a coaching tool, creating definitional chaos for buyers. His "motherboard" analogy and "lunatic" self-identification reflect sensemaking as continuous negotiation without stable retention.

Unlike Paterson and McCowan, who achieve relatively stable interpretations, Beck remains in perpetual enactment, unable to select and retain a category narrative that the market accepts. This produces strategic oscillation between educating the market, retaining the interpretation, and pivoting the product, abandoning it. The platform's results further compound the problem through what Beck describes as a "splatter effect," fixing so many diffuse variables that the original root cause becomes invisible. Success becomes unattributable: a client whose stock price surged following the intervention dismissed Cratic AI's role entirely. Resolution requires either category creation (expensive and slow), repositioning into existing categories (risking commoditisation), or narrowing to sophisticated early adopters (limiting market size).

Cross-Case Synthesis.

Despite different decision contexts, the same sensemaking mechanism explains divergent outcomes. Institutional equivocality (Case 1) triggers cue-extraction from policy environments; professional equivocality (Case 2) triggers identity-protective retention; categorical equivocality (Case 3) triggers ongoing enactment without stable selection. Across all three cases, defensive sensemaking, whether interpreting AI as institutionally blocked, professionally threatening, or categorically illegible, leads to strategic delay or inertia. The critical implication is that "AI ambiguity" is not a single, uniform construct but a set of distinct equivocality types, each requiring targeted forms of intervention.

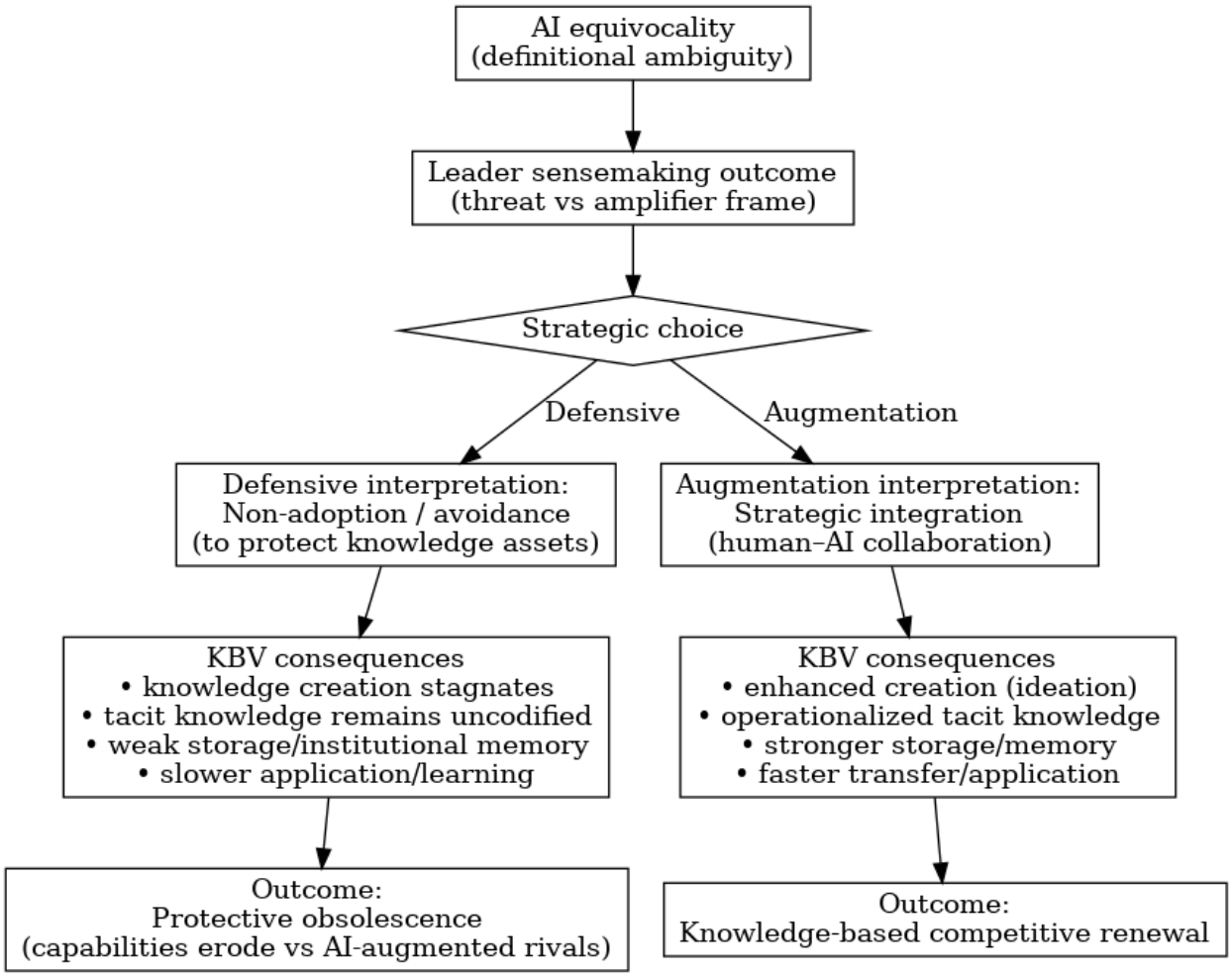
7.5 Strategic Consequences: Defensive Sensemaking and Strategic Inertia

Building on the cross-case analysis, this section synthesises how divergent sensemaking trajectories under conditions of AI equivocality translate into distinct knowledge-based consequences, addressing the third secondary research question: What strategic actions emerge from these stabilised interpretations, and how do they construct the path forward? Figure 5

illustrates a conceptual pathway linking leader sensemaking frames to strategic choices and their longer-term implications for knowledge creation, retention, and competitive renewal. The figure is not intended as a predictive model but as an integrative representation of patterns observed across the cases.

Figure 5

Conceptual Pathway Linking AI Equivocality, Leader Sensemaking, and Strategic Choice to Long-Term Knowledge-Based Competitive Outcomes



Note. *This model illustrates how definitional ambiguity around AI triggers differing leader sensemaking frames (threat vs. amplifier), which then guide defensive versus augmentation*

oriented strategic choices and produce distinct knowledgebase outcomes-oriented strategic choices and produce distinct knowledge-based outcomes

Rather than viewing non-adoption as a failure to recognise competitive advantage, the analysis suggests it emerges from performative enactment, leaders literally construct environments that confirm their initial interpretations (Tsoukas et al., 2020). This pattern aligns with the integrative mechanism whereby equivocality shapes sensemaking outcomes, which drive defensive or augmentation-oriented strategic choices with downstream knowledge-based consequences.

7.5.1 Enactment Lock-In.

Paterson enacts a Canadian market composed of grant-dependent, risk-averse buyers through his selection of "tipping point" grant strategies, thereby enacting the very slowness he observes. By making his sales strategy dependent on ERA grants and government co-funding, he structures his entire pipeline around institutional mechanisms. When those mechanisms freeze, his pipeline freezes, confirming his interpretation that "Canada is slow." A direct-sales approach, the model that appears to generate $2 million in U.S. revenue for peers, might have produced different results, but the grant-dependent enactment forecloses this possibility.

McCowan enacts a client relationship requiring emotional billing judgment through her retention of manual processes, foreclosing opportunities to discover whether clients would accept algorithmic billing. By never testing AI on actual billing tasks, only on email rewriting, she never generates evidence that could challenge her "billing is emotional art" narrative. The manual four-hour ritual continues to produce the emotional data that justifies the manual four-hour ritual, a self-reinforcing loop. These patterns illustrate how strategic inertia is not the absence of action but the product of active sensemaking that stabilises realities. As Waters-Lynch et al. (2025)

demonstrate, delayed technology engagement creates “knowledge blind spots” that undermine collective learning, precisely because individual sensemaking constructs environments where delay appears rational.

7.5.2 The Opportunity Cost of Plausibility.

The pursuit of plausibility over accuracy carries strategic costs. By selecting identity-consistent narratives, Paterson as institutional insider, McCowan as craft professional, leaders filter out disconfirming evidence that might enable adaptive responses. Paterson filters out U.S. peer data that challenges his Canadian-market-insider identity. McCowan filters out Copilot’s actual capabilities beyond email rewriting that might challenge her “binary only” frame. Beck filters out evidence that his category might need repositioning rather than market education. This confirms that sensemaking shortcuts under uncertainty privilege defensible stories over strategic flexibility (Fjader, 2021; H. Kaur et al., 2022).

7.6 Competitive Dynamics and Scaling Effects

When defensive sensemaking aggregates across individual firms, it produces systemic coordination failures (Schelling, 1978). Paterson’s interpretation that “Canada is slow” is plausible individually but, when retained across multiple consultants and sectors, constructs a collective reality of institutional sclerosis that drives innovation capital to the United States. Similarly, McCowan’s retention of manual billing practices, replicated across professional services, maintains sectoral productivity gaps that Statistics Canada documents. Canada’s business sector productivity grew at only 1% annually compared to 3% in the United States over the past two decades, and only 6% of Canadian businesses had implemented AI technologies compared to 14% among comparable U.S.

The scaling of interpretive failure across cases suggests that AI adoption policy can fail not merely for lack of funding but because of gaps in the interpretive infrastructure that enables leaders to see and test plausible AI use cases, complementing Kergroach and Héritier's (2025) report on skills and implementation constraints. When 40% of firms construct AI as irrelevant through stabilised ESR processes, individual "rationality" becomes collective vulnerability. As Schelling (1978) identified, individually rational choices aggregate into collectively suboptimal outcomes when interpretive patterns replicate through social proof.

From a Knowledge-Based View perspective, defensive interpretations constrain experimentation and learning-by-doing, slowing the development of AI-related complementary capabilities (R. Grant & Phene, 2022). When replicated across many SMEs, these micro-level stances scale into macro-level effects: weaker diffusion of productivity-enhancing practices, slower capability accumulation, and reduced competitiveness in knowledge-intensive sectors. The claim is not that SMEs uniformly "think the same way," but that shared institutional and professional environments can stabilise convergent narratives that make delay appear rational, even when the cumulative effect is competitive erosion.

7.7 Theoretical Contributions

This study makes three contributions to sensemaking theory, each directly grounded in the cross-case evidence presented above.

First, the study extends ESR to anticipatory contexts. Weick's (1995) model has typically been applied to explain how organisations retrospectively interpret disruptions or sustain ongoing operations. The cases demonstrate how enactment, selection, and retention operate before adoption decisions, stabilising non-adoption as a durable outcome. While Sandberg and

Tsoukas (2015) warn that retrospective sensemaking can be problematic for novel technologies, this study shows how prospective sensemaking creates path dependencies to non-adoption even before technologies are implemented.

Second, the study specifies varieties of equivocality. It advances sensemaking theory by observing institutional, professional, and categorical equivocality as distinct triggers that activate different sensemaking properties, social cues versus identity protection versus ongoing negotiation. This extends Griffith's (1999) work on technology-triggered sensemaking by specifying how the type of category disruption shapes the intensity and direction of sensemaking efforts. The taxonomy is inductively derived from the cases and is offered as a contribution of this study, not as an established classification from prior literature.

Third, the study demonstrates sensemaking and strategic path dependence. It shows how micro-level interpretive processes construct macro-level strategic constraints. The "imagination gap" is shown to be an enacted outcome of ESR processes rather than a cognitive deficit, with interpretive failures cascading into competitive vulnerabilities through coordination effects (Schelling, 1978).

7.8 Implications

Analysis of three Alberta consultants reveals that gaps in AI adoption necessitate context-specific cognitive interventions rather than technological solutions. For practitioners, stalled adoption may arise from institutional voids, threats to professional identity, or categorical illegibility, each requiring distinct responses. For policymakers, Canada's AI investments risk yielding limited returns if interpretive barriers persist. For intermediaries, the findings suggest a shift from implementation to interpretive support.

7.8.1 For Practice.

Interventions must target meaning construction rather than technical demonstration. For institutional equivocality (Case 1), legitimacy mechanisms, reference customers, policy certainty, matter more than feature lists; Paterson needed a "proof point" in Alberta more than technical specifications. For professional equivocality (Case 2), identity-safe framing AI as "amplify not replace", is essential; McCowan might adopt AI billing if framed as enhancing her judgment rather than automating it. For categorical equivocality (Case 3), category education or strategic pivoting requires acknowledging when retention is impossible; Beck must decide whether to continue enacting the "motherboard" inventor identity or select a more market-legible category. Leaders should also conduct deliberate "analogy audits," examining whether retrospective analogies are compressing their perceived opportunity space, and engage in "plausibility testing" actively seeking disconfirming evidence against stable narratives to prevent ESR lock-in.

7.8.2 For Policy.

Adoption programs should include interpretive supports sector-specific peer exemplars that function as "strong cues" to disrupt defensive ESR cycles, rather than relying solely on funding mechanisms. The suspension of the Canada-Alberta Job Grant (Case 1) did not merely remove funds; it removed a mental cue that made AI adoption institutionally legible, validating Paterson's "Canada is slow" narrative. Policymakers must address imagination gaps alongside funding gaps, providing sector-specific stories that make AI plausible within existing identity frameworks. Policy stability is itself an interpretive resource: grant volatility inadvertently validates conservative sensemaking by removing the institutional signals that make adoption appear legitimate.

7.9 Summary

The three cases triangulate a central finding: AI adoption is constrained not by resource scarcity but by stabilised sensemaking cycles that construct AI as institutionally illegitimate, professionally threatening, or categorically unrecognisable. Whether the outcome is market pivot consideration, status quo retention, or product-market fit struggle, the mechanism remains consistent with the ESR processes enact environments that confirm initial interpretations, creating strategic inertia that resists both technological potential and competitive pressure. The imagination gap is not a cognitive deficit to be corrected through information provision but an enacted outcome of sensemaking under equivocality, produced and sustained through identity commitments, analogical compression, and the selective extraction of cues that privilege plausibility over accuracy. Addressing it requires interventions targeted at meaning construction itself before defensive narratives become retained.

Chapter 8: Conclusion

8.1 Summary of the Study

This thesis examines why Gen AI adoption remains low among Canadian SMEs despite reported benefits among early adopters. In Canada, SMEs make up 98% of businesses and employ 64% of the private-sector workforce, yet adoption rose only slightly from 6% in Q1 2024. Among adopters, 82% report current or anticipated value, while the majority of non-adopters continue to perceive Gen AI as irrelevant to their operations This disconnect between demonstrated value among adopters and constructed irrelevance among non-adopters motivated the study's central inquiry.

Drawing on Weick's (1995) sensemaking theory and the Knowledge-Based View of the firm, the study analyzed three Alberta-based cases involving independent consultants and a micro-firm technology founder, each confronting a distinct form of equivocality when interpreting Gen AI. The empirical core was developed through three applied teaching cases, The Kiami Dilemma (market selection under institutional uncertainty), The Billable Hour (operational workflow under professional identity threat), and Cratic AI (product innovation under market-category ambiguity) each accompanied by an instructor manual designed to surface sensemaking dynamics and their strategic implications.

The cross-case analysis demonstrates that adoption outcomes are shaped upstream by how leaders reduce equivocality through the ESR cycle. Across cases, leaders framed Gen AI as institutionally illegitimate (Case 1), professionally threatening (Case 2), or categorically illegible (Case 3). These sensemaking outcomes shaped whether leaders pursued defensive avoidance or augmentation-oriented integration, creating diverging knowledge trajectories and competitive outcomes over time.

The primary research question of How do independent consultants and micro-firm leaders understand AI's role in their businesses, and what are the implications for their knowledge-based competitive advantage? was addressed through four secondary questions examining interpretive cues (SRQ1), ESR dynamics (SRQ2), strategic consequences (SRQ3), and contextual variation across decision domains (SRQ4). The findings reveal that the barrier to adoption is fundamentally interpretive rather than structural.

8.2 Key Findings

8.2.1 Finding 1: Varieties of Equivocality Trigger Distinct Sensemaking Patterns

Equivocality is not uniform. The type of ambiguity confronting leaders—institutional legitimacy, professional jurisdiction, or market category definition—activates fundamentally different sensemaking properties and produces distinct strategic responses.

Institutional equivocality (Case 1) prioritized social cues and enactment when grant freezes removed legitimacy signals. The Canada-Alberta Job Grant freeze removed approximately $10 million in training support, and prospects responded with what the leader described as "polite silence." This institutional void validated a "Canada is slow" narrative despite contradictory U.S. market signals. Professional equivocality (Case 2) prioritized identity protection and retrospective processing when billing automation threatened professional jurisdiction. The leader framed billing as "an emotional decision" involving twenty-year client relationships and discretionary judgment, constraining AI to "binary" tasks while protecting tacit knowledge domains. Categorical equivocality (Case 3) created perpetual enactment without stable retention when buyers could not recognize an AI-enabled culture platform that occupied liminal space, neither pulse survey, nor LMS, nor coaching tool. The leader remained unable to select and retain a category narrative the market would accept.

These differences explain why identical Gen AI capabilities can be constructed as irrelevant, risky, or illegible depending on context, and why interventions must be equivocality-type-specific rather than treating "AI ambiguity" as a single undifferentiated construct.

8.2.2 Finding 2: ESR Functions as a Lock-In Mechanism for Constructed Irrelevance

Non-adoption is not a passive default, but an active, path-dependent outcome produced through the ESR cycle. The analysis traces how early encounters with AI delimit subsequent possibilities, how selection privileges locally defensible narratives over comprehensive evaluation, and how retention embeds these narratives into routines that resist disconfirmation.

Enactment constrains perception through limited trials and grant-dependent strategies that literally enact the barriers leaders then observe. Selection privileges plausibility over accuracy, leaders choose narratives reasonable enough to support action rather than empirically comprehensive, such as "Canada is slow/grant-dependent" or "billing is emotional art, not data science" to preserve professional jurisdiction. Retention creates path dependence through repeated conversations and monthly rituals (consuming approximately four hours per month, or $8,400 annually in lost revenue for one case) that reinforce interpretations and increase the cost of reconsideration.

The result across cases is stabilized non-adoption framing where the imagination gap persists, not because leaders lack information, but because organizational practice has locked in narrow understandings of what Gen AI is and is not for. In one distinctive case, retention failed entirely, producing strategic oscillation between market education and product repositioning without stable narrative acceptance.

8.2.3 Finding 3: Individual Interpretive Failures Aggregate to Systemic Knowledge-Based Vulnerability

Firm-level sensemaking aggregates through professional networks, client relationships, and institutional cues, becoming self-reinforcing through social proof. When 40% of Canadian firms construct Gen AI as irrelevant through stabilized ESR processes, individually rational choices produce collectively suboptimal outcomes, coordination failures where interpretive patterns replicate (Schelling, 1978). From a KBV perspective, defensive interpretations constrain experimentation and learning-by-doing, slowing complementary capability development (R. Grant & Phene, 2022). Canada's 1% annual productivity growth versus 3% in the U.S. reflects aggregated defensive sensemaking, not merely resource disparities.

8.3 Theoretical Contributions

Extending Sensemaking to Anticipatory Technology Evaluation: The ESR model typically explains retrospective disruption interpretation. This thesis extends it to anticipatory evaluation, demonstrating that ESR processes stabilize non-adoption as an enacted strategic outcome before implementation. Prospective sensemaking creates path dependencies to non-adoption, making it an active, sensemaking-produced outcome rather than a diffusion gap.

Specifying Varieties of Equivocality**:** The study differentiates institutional, professional, and categorical equivocality as distinct triggers activating different sensemaking properties. This extends Griffith's (1999) work by specifying how disruption type shapes sensemaking intensity and direction, providing a diagnostic framework suggesting interventions should be equivocality-type-specific.

Combining Sensemaking with the Knowledge-Based View: The study bridges micro-level interpretive processes with macro-level knowledge capabilities, demonstrating that knowledge

assets are accessed through interpretation. How leaders view AI, as amplifier or threat, determines whether firms develop or stagnate in knowledge-based capabilities. This integration reveals how interpretive misalignments constrain adaptive capacity (R. Grant & Phene, 2022), particularly significant for knowledge-intensive SMEs where competitive advantage rests on tacit expertise vulnerable to defensive sensemaking.

8.4 Practical and Policy Implications

For SME Leaders and Consultants: Successful AI engagement requires reflexive style sensemaking, deliberate interrogation of the analogies, identity commitments, and early enactments that filter AI's perceived relevance. Leaders should treat initial AI encounters not as neutral trials but as consequential enactments that constrain future perception.

Use identity-safe framing that preserves professional jurisdiction by positioning AI as "judgment amplification" rather than automation. For knowledge workers, this means framing AI as drafting preliminary outputs for expert review and adjustment that is preserving valued judgment while reducing time burdens. Conduct analogy audits to examine whether retrospective comparisons (traffic circles, calculators, motherboards) compress opportunity space and suppress experimentation. Actively test stable narratives against disconfirming evidence to prevent ESR lock-in, pilot AI for one low-stakes client, test non-grant-dependent sales strategies, or explore repositioned value propositions.

For Innovation Intermediaries: Consultants and technology vendors must shift from implementation support to interpretive support. Feature demonstrations are insufficient when the barrier is interpretive rather than informational.

Provide legitimacy bridges through sector-specific reference customers and transparent policy-navigation frameworks for institutional equivocality, prospects need proven local

implementations they can visit and verify, not just technical specifications. Design for professional jurisdiction by positioning AI as enhancing craft judgment rather than replacing it, tools positioned as "assisting reckoning" rather than "automating billing" align with rather than threaten professional identity. Invest in category education for categorical equivocality through market-building activities, acknowledging when retention of original category vision becomes impossible and strategic repositioning is required.

For Policymakers: Canada's $2 billion AI investment through the Pan-Canadian AI Strategy and Canada Digital Adoption Program risks limited returns if interpretive barriers remain unaddressed. These investments address supply-side constraints (infrastructure, funding, skills) while leaving demand-side interpretive barriers intact.

Build interpretive infrastructure by funding sector-specific peer exemplars and "strong cue" networks that disrupt defensive ESR cycles, when SME leaders see comparable firms successfully enacting AI, adoption plausibility increases. Address imagination gaps directly through programs helping leaders envision context-specific use cases, bridging the gap between abstract capability and local value creation. Maintain policy stability because grant volatility removes institutional cues making adoption legible, the CAJG suspension removed not just $10 million in support but mental cues validating adoption, inadvertently producing the institutional equivocality triggering defensive sensemaking.

8.5 Limitations and Future Research

The three-case qualitative design enables analytical generalization to comparable knowledge-intensive settings but limits transferability to sectors with different governance structures, skill distributions, and operational logics. Retrospective interview data introduces possible post-hoc rationalization, though mitigated through iterative verification, triangulation

across data sources, and member checking. Single interview designs per case could not trace how sensemaking evolves over time or capture shifts in ESR dynamics as leaders encounter new evidence. The 2024–2025 temporal window captures rapid Gen AI evolution; sensemaking patterns may shift as institutional cues stabilize and experiential familiarity increases. Alberta-based professional services context provides depth but bounds transferability.

As an interpretivist study, the researcher's sensemaking inevitably shapes which patterns are noticed and framed. The study identifies correlations between sensemaking patterns and strategic outcomes but cannot establish causation, outcomes may be driven by factors not captured, such as market timing, financial constraints, or competitive dynamics. The claim that individual sensemaking aggregates into systemic vulnerability is theoretically derived from three cases and national statistics but does not empirically trace how specific interpretations propagate through professional networks, this remains an analytical inference consistent with coordination failure frameworks (Schelling, 1978) rather than an observed mechanism.

Future research could employ longitudinal or diary-based methods to trace ESR dynamics in real time, capturing how interpretive frames evolve with new evidence, peer success stories, or shifting institutional signals. Network analysis could trace how interpretive ambiguities propagate through professional networks and supply chains. Cross-sector and cross-national comparisons could examine whether these mechanisms persist across different technological maturation stages, organizational sizes, sectors, and national innovation ecosystems. Intervention studies could evaluate identity-safe framing, analogy audits, and plausibility testing through action research or quasi-experimental designs. The three equivocality varieties identified may not be exhaustive and future research could explore ethical, relational, and regulatory varieties and examine interactions when leaders face compound ambiguity from multiple sources.

8.6 Closing Statement

Gen AI adoption among Canadian SMEs is constrained by meaning construction more than resources. When leaders cannot find institutional permission, cannot envision AI exercising professional judgment, or cannot make markets recognize product categories, the barrier is interpretation, not capability or access.

The ESR cycle reveals how interpretations are active constructions shaping strategic environments. Early enactments constrain subsequent perception; selected narratives become retained through routines until they resist disconfirmation. Non-adoption becomes a stable strategic posture with cumulative knowledge-based consequences.

When individual patterns aggregate across Canada's SME sector, they contribute to the productivity gap, innovation deficit, and competitive vulnerability that statistics document, but structural explanations alone cannot account for. The imagination gap is an enacted outcome of sensemaking under uncertainty, and it can be addressed.

Addressing adoption gaps requires strengthening interpretive capability: credible peer exemplars providing institutional cues, disciplined experimentation generating evidence against premature narrative closure, and identity-safe framing positioning AI as amplifying professional expertise. The goal is ensuring plausible use cases can be enacted and tested before defensive narratives become retained thus keeping Gen AI's strategic possibilities open to leaders whose knowledge-based firms depend on continued learning, adaptation, and competitive renewal.

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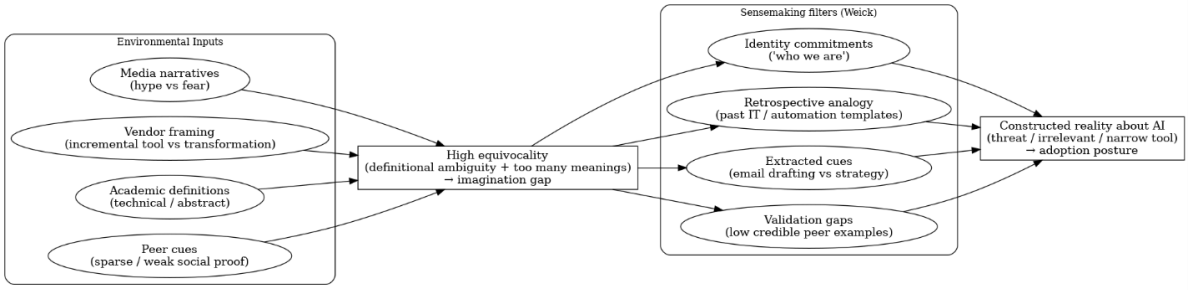
Appendix

Tables and Figures

Figure 1

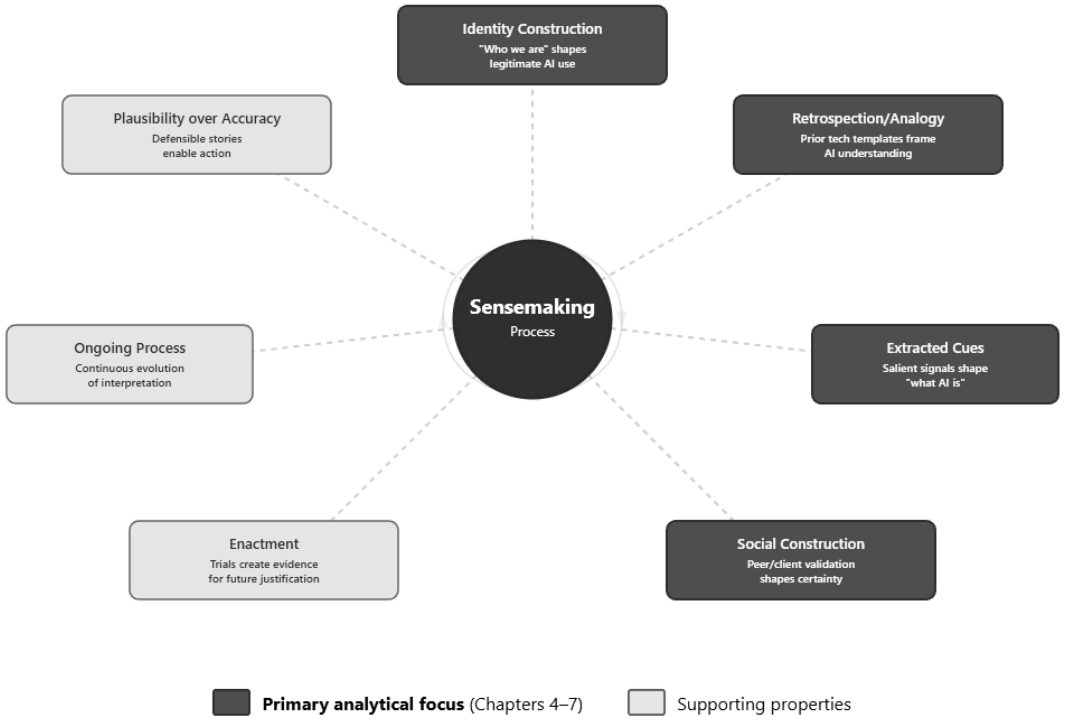
Environmental Inputs, Equivocality, and Sensemaking Filters Shaping Constructed AI Relevance



Note. This figure summarizes how environmental inputs (media narratives, vendor framing, academic definitions, and peer cues) create Gen AI equivocality and how leaders' sensemaking filters shape a constructed reality of AI relevance that drives adoption posture.

Figure 2

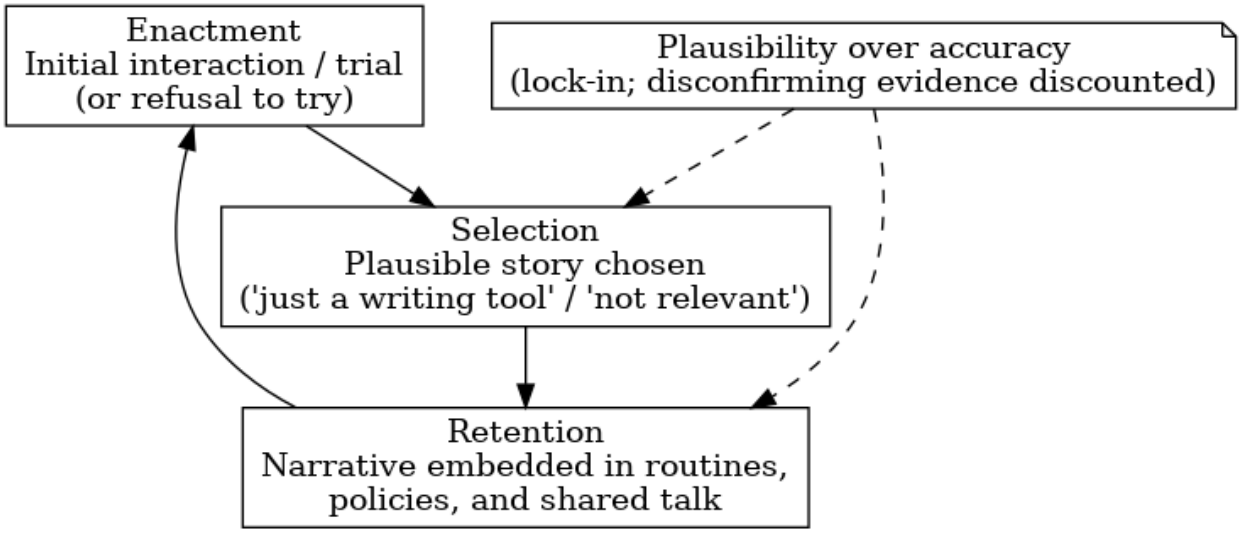
Weick's Seven Properties of Sensemaking Used as Sensitizing Concepts for This Thesis



Note. This figure summarizes Weick's seven properties of sensemaking as they are used in this thesis to identify where AI interpretations are likely to diverge and stabilize, with emphasis on identity construction, retrospection/analogy, extracted cues, and social validation.

Figure 3

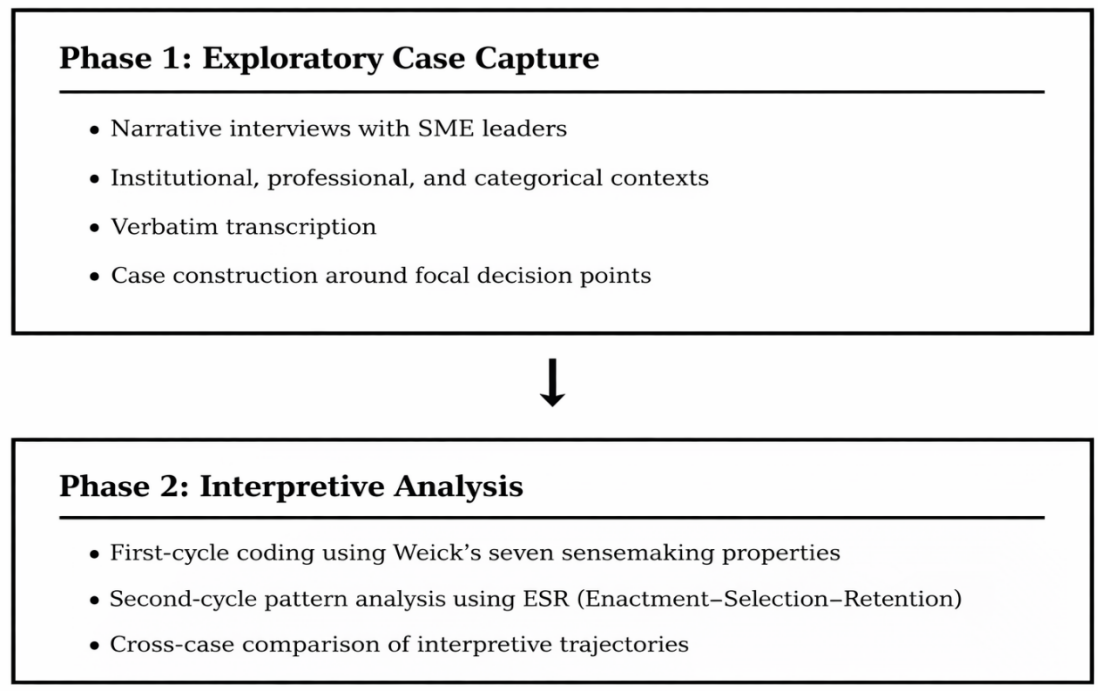
Enactment–Selection–Retention (ESR) Cycle and Plausibility Based Lock-In-Based Lock-In



Note. This figure depicts the ESR cycle as used in this thesis, illustrating how initial enactments shape the selection of a plausible narrative and how that narrative becomes retained through routines, policies, and shared talk, even when disconfirming evidence is available

Figure 4

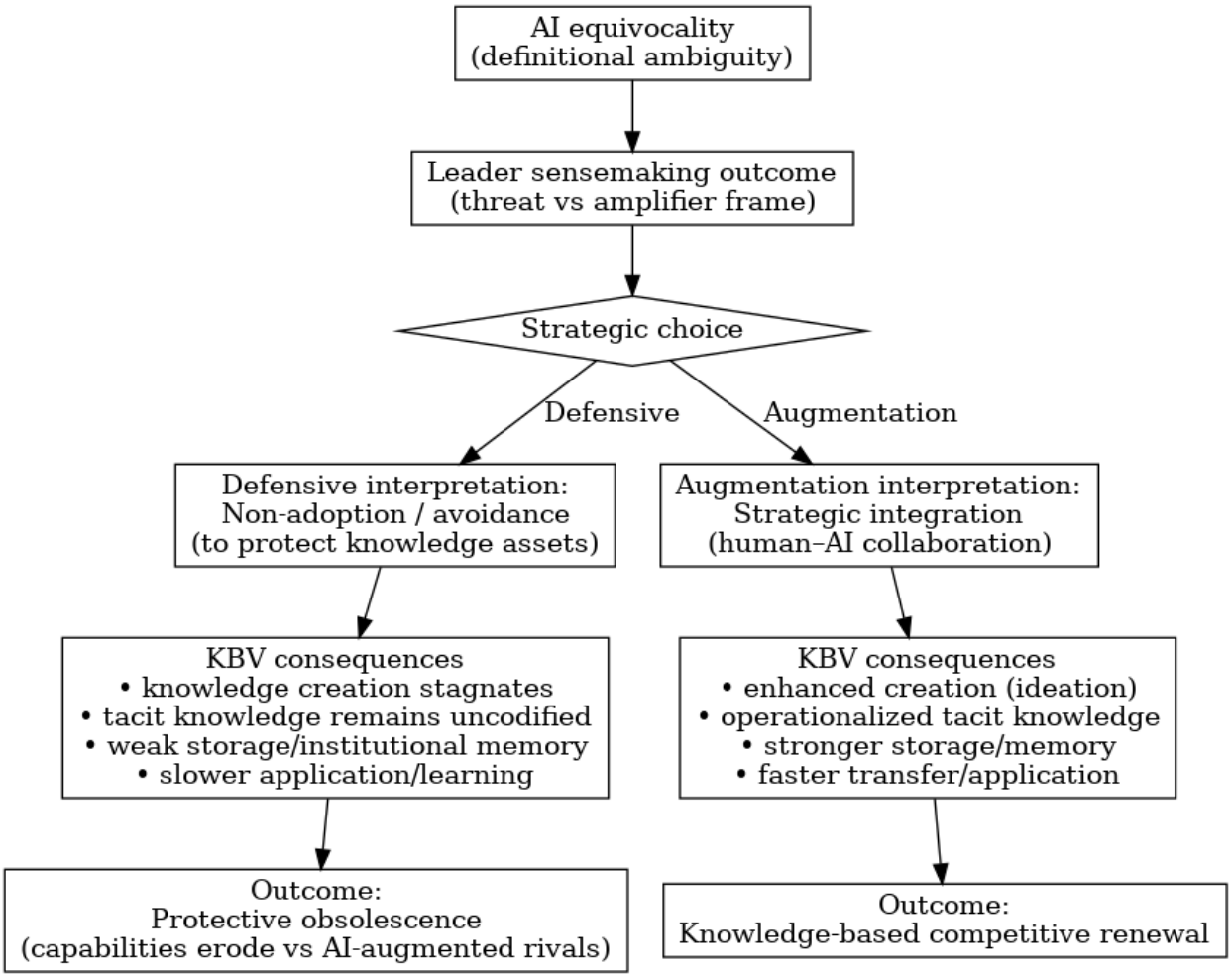
Exploratory Research Model Showing Phase 1 and Phase 2 of the Analytical Process



Note. This figure illustrates the two-phase exploratory research model used in this thesis. Phase 1 involves inductive case capture across institutional, professional, and categorical contexts. Phase 2 involves cross case interpretive analysis using Weick's sensemaking properties and the Enactment–Selection–Retention (ESR) framework. -phase exploratory research model used in this thesis. Phase 1 involves inductive case capture across institutional, professional, and categorical contexts. Phase 2 involves cross-case interpretive analysis using Weick's sensemaking properties and the Enactment–Selection–Retention (ESR) framework.

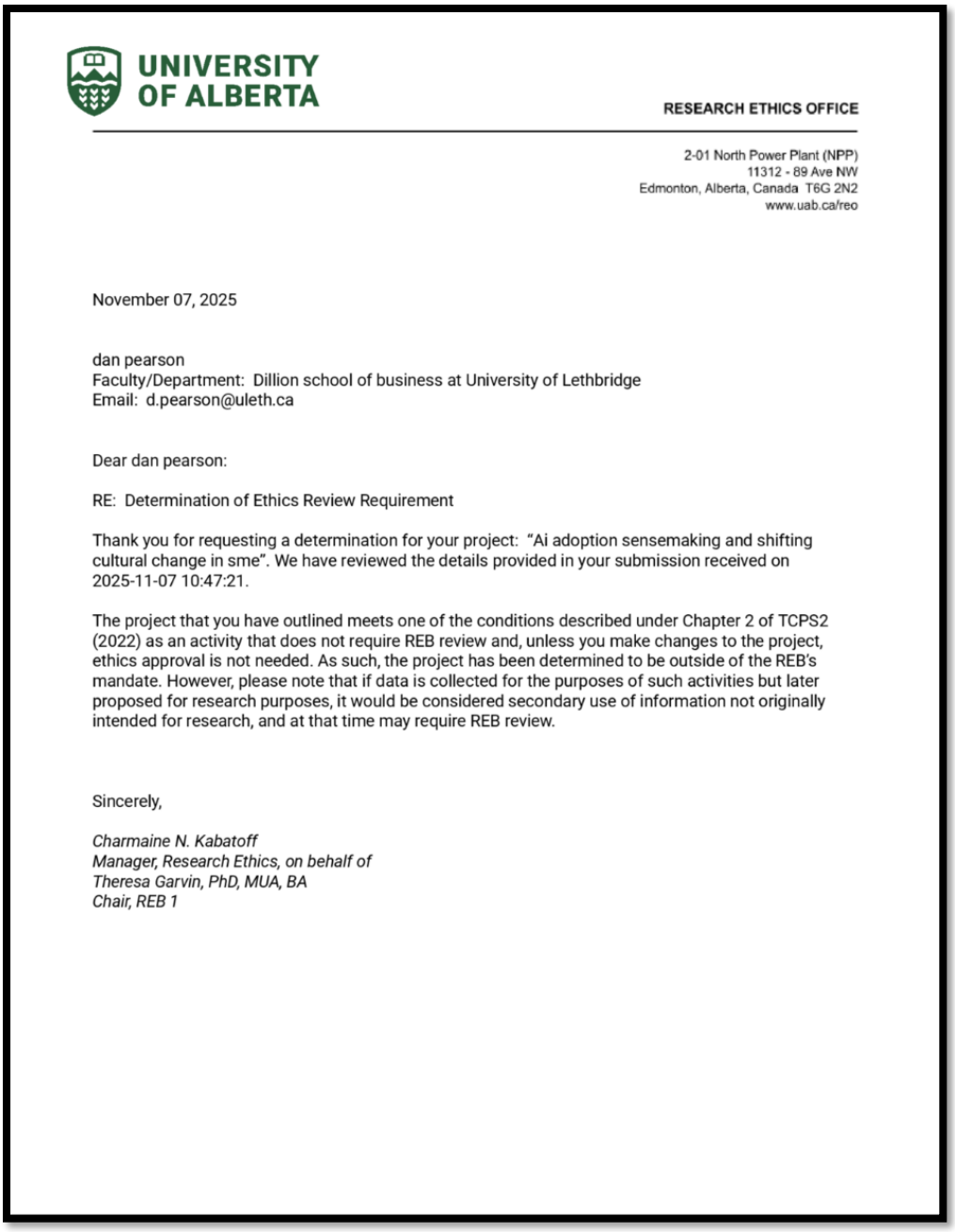
Figure 5

Conceptual Pathway Linking AI Equivocality, Leader Sensemaking, and Strategic Choice to Long-Term Knowledge-Based Competitive Outcomes



Note. *This model illustrates how definitional ambiguity around AI triggers differing leader sensemaking frames (threat vs. amplifier), which then guide defensive versus augmentation oriented strategic choices and produce distinct knowledgebase outcomes-oriented strategic choices and produce distinct knowledge-based outcomes*

Ethics Documents



UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

2-01 North Power Plant (NPP)
11312 - 89 Ave NW
Edmonton, Alberta, Canada T6G 2N2
www.uab.ca/reo

November 07, 2025

dan pearson
Faculty/Department: Dillion school of business at University of Lethbridge
Email: d.pearson@uleth.ca

Dear dan pearson:

RE: Determination of Ethics Review Requirement

Thank you for requesting a determination for your project: "Ai adoption sensemaking and shifting cultural change in sme". We have reviewed the details provided in your submission received on 2025-11-07 10:47:21.

The project that you have outlined meets one of the conditions described under Chapter 2 of TCPS2 (2022) as an activity that does not require REB review and, unless you make changes to the project, ethics approval is not needed. As such, the project has been determined to be outside of the REB's mandate. However, please note that if data is collected for the purposes of such activities but later proposed for research purposes, it would be considered secondary use of information not originally intended for research, and at that time may require REB review.

Sincerely,

Charmaine N. Kabatoff
Manager, Research Ethics, on behalf of
Theresa Garvin, PhD, MUA, BA
Chair, REB 1

UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

2-01 North Power Plant (NPP)
11312 - 89 Ave NW
Edmonton, Alberta, Canada T6G 2N2
www.uab.ca/reo

September 08, 2025

Daniel Pearson
Faculty/Department: Dillion school of business at University of Lethbridge
Email: d.pearson@uleth.ca

Dear Daniel Pearson:

RE: Determination of Ethics Review Requirement

Thank you for requesting a determination for your project: "Overcoming Resistance: Sensemaking AI Adoption". We have reviewed the details provided in your submission received on 2025-09-08 16:24:01.

The project that you have outlined meets one of the conditions described under Chapter 2 of TCPS2 (2022) as an activity that does not require REB review and, unless you make changes to the project, ethics approval is not needed. As such, the project has been determined to be outside of the REB's mandate. However, please note that if data is collected for the purposes of such activities but later proposed for research purposes, it would be considered secondary use of information not originally intended for research, and at that time may require REB review.

Sincerely,

Charmaine N. Kabatoff
Senior Officer, REB for
Theresa Garvin, PhD, MUA, BA
Chair, REB 1

UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

2-01 North Power Plant (NPP)
11312 - 89 Ave NW
Edmonton, Alberta, Canada T6G 2N2
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October 03, 2025

daniel pearson
Faculty/Department: Dillion school of business at University of Lethbridge
Email: d.pearson@uleth.ca

Dear daniel pearson:

RE: Determination of Ethics Review Requirement

Thank you for requesting a determination for your project: “sensemaking in Wildoats consulting”. We have reviewed the details provided in your submission received on 2025-10-03 10:55:32.

The project that you have outlined meets one of the conditions described under Chapter 2 of TCPS2 (2022) as an activity that does not require REB review and, unless you make changes to the project, ethics approval is not needed. As such, the project has been determined to be outside of the REB’s mandate. However, please note that if data is collected for the purposes of such activities but later proposed for research purposes, it would be considered secondary use of information not originally intended for research, and at that time may require REB review.

Sincerely,

Charmaine N. Kabatoff
Senior Officer, REB for
Theresa Garvin, PhD, MUA, BA
Chair, REB 1

UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

2-01 North Power Plant (NPP)
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Edmonton, Alberta, Canada T6G 2N2
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November 07, 2025

dan pearson
Faculty/Department: Dillion school of business at University of Lethbridge
Email: d.pearson@uleth.ca

Dear dan pearson:

RE: Determination of Ethics Review Requirement

Thank you for requesting a determination for your project: "Ai adoption sensemaking and shifting cultural change in sme". We have reviewed the details provided in your submission received on 2025-11-07 10:47:21.

The project that you have outlined meets one of the conditions described under Chapter 2 of TCPS2 (2022) as an activity that does not require REB review and, unless you make changes to the project, ethics approval is not needed. As such, the project has been determined to be outside of the REB's mandate. However, please note that if data is collected for the purposes of such activities but later proposed for research purposes, it would be considered secondary use of information not originally intended for research, and at that time may require REB review.

Sincerely,

Charmaine N. Kabatoff
Manager, Research Ethics, on behalf of
Theresa Garvin, PhD, MUA, BA
Chair, REB 1

DHILLON
SCHOOL OF BUSINESS
UNIVERSITY OF LETHBRIDGE

Consent Form – Secondary Use of Case Study Data
Project Title: *Making Sense of Innovation: Understanding AI Adoption Processes in Alberta's SMEs*
REB Study ID: Pro00155487
Principal Investigator: Daniel Pearson, University of Lethbridge
Supervisor: Dr. Sidney Shapiro, University of Lethbridge

Invitation to Participate
You are invited to provide consent for the secondary use of interview data that you previously provided as part of one of the business teaching case studies. Your original interview is complete, and this project does not involve any new data collection or additional time commitment from you.

Purpose of the Secondary Study
The original case studies were developed for publication in business teaching case journals. These journals require the use of real participant and organizational names unless a disguise is specifically requested. Your data were collected and prepared with this understanding, and you were aware that your identity would be included as part of the published case.

The purpose of this secondary analysis is different. As part of a graduate thesis, the three case studies will be examined together to explore broader themes related to how small and medium-sized business leaders in Alberta understand and make decisions about artificial intelligence and innovation. This analysis will appear in the thesis discussion section, where insights from the three cases will be compared and interpreted at a conceptual level. Because this use represents an additional analysis beyond the original case study publication, we are requesting your consent for this secondary purpose.

What Participation Involves
If you agree, your previously collected interview data will be included in this secondary analysis. The study team already holds the original identifiable material, and no new information about you will be collected. Your name, role, and organization will continue to be used in the manner originally agreed to for the case study unless you now prefer that your identity be disguised for the thesis. You may indicate this below.

Use of Identifying Information
Identifying information includes your name, role, organization, and contextual details that were part of the original case. The original case study materials were not anonymized because journal publication standards require the use of real individuals and organizations. The secondary analysis may reference your contributions in a conceptual, comparative manner. If you prefer that your name or organization be removed or disguised for the thesis, you may request this at the time of consent.

DHILLON
SCHOOL OF BUSINESS
UNIVERSITY OF LETHBRIDGE

Risks and Benefits
There are no new risks associated with this project. The information has already been collected, and you previously agreed to its use in published teaching cases. Secondary analysis may contribute to academic research on innovation and AI adoption in Alberta SMEs but does not provide direct personal benefit.

Voluntary Participation and Withdrawal
Your participation in this secondary use is voluntary. You may decline without any consequence. If you withdraw after consenting, withdrawal will apply to the thesis analysis; however, it cannot apply retroactively to any material already prepared or published as part of the original teaching case study.

Confidentiality and Data Storage
Your data will continue to be stored securely on encrypted university servers accessible only to the research team. Identifying information will be retained as required for the original case publications and for this secondary analysis unless you request a disguise for the thesis.

Questions
If you have questions about the project, please contact:
Daniel Pearson – daniel.pearson@uleth.ca
Supervisor: Dr. Sidney Shapiro – sidney.shapiro@uleth.ca

For questions about your rights as a research participant, contact the University of Alberta Research Ethics Office at reoffice@ualberta.ca.

Consent Options
Please select one:

☐ I consent to the secondary use of my interview data, including identifying information, as described.
☐ I consent to the secondary use of my interview data, but I request that my name and/or organization be disguised for the thesis.
☐ I do not consent to the secondary use of my data.

Participant Name: _____
Signature: _____
Date: _____

Researcher Signature: _____
Date: _____

Lethbridge campus | 4401 University Drive W
Lethbridge, AB, Canada | T1K 3M4
Phone: 403-329-2153 | Fax: 403-329-2038
uleth.ca/Dhillon

Calgary campus | Suite 6032, 345-6th Ave. SE
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Phone: 403-571-3360 | Fax: 403-261-2944
uleth.ca/Dhillon/Calgary

AACSB ACCREDITED

Interview Guide

Interviewer Checklist: Story-focused Sensemaking

Instructions: Use this checklist to ensure you have covered the necessary "analytical landmarks" for a business case study. Do not treat this as a script; instead, check off the boxes as the interviewee naturally reveals these parts of their story. Use the suggested "Flow Prompts" only if the conversation stalls.

☐ 1. Identity & Context (The "Who")

Goal: Understand how they see their own authority and role.

Look for: Do they describe themselves as a "disruptor," a "safe pair of hands," or a "problem solver"?

Flow Prompts: "How would you describe your 'vibe' as a leader?"

"What does success look like in your world?"

☐ 2. The Mess (The "What")

Goal: Find the ambiguity or conflict they are facing.

Look for: Moments of frustration, confusion, or "no-win" scenarios.

Flow Prompts: "Where is the friction in this situation?"

"What part of this keeps you up at night?"

☐ 3. First Moves (The "How")

Goal: Understand how they started testing the environment (Enactment).

Look for: Early phone calls, small pilots, or "trying things out" to see what happened.

Flow Prompts: "Walk me through that first week..."

"What was the very first signal you got back from the market/team?"

☐ 4. The "Why" (The Selection)

Goal: Why this path made sense and others did not.

Look for: Their logic for picking a specific solution and why they rejected alternatives.

Flow Prompts: "Why did that path feel like the 'right' one at the time?"

"What ideas did you leave on the cutting room floor?"

☐ 5. Mental Shortcuts (The Analogies)

Goal: How they simplified the complexity.

Look for: Comparisons to past jobs, sports metaphors, or "this is just like when..."

Flow Prompts: "Does this remind you of anything you've dealt with before?"

"If this situation were a movie or a book, what would it be?"

☐ 6. The Proof (The Evidence)

Goal: What data actually mattered to them.

Look for: Do they trust their gut, their team, or hard spreadsheets?

Flow Prompts: "What was the 'aha' moment where the data finally made sense?"

"Whose opinion carried the most weight here?"

☐ 7. The New Normal (The Retention)

Goal: What changes stuck and became "the way we do things."

Look for: New meetings, new software, or new habits that are not going away.

Flow Prompts: "How is today different from six months ago?"

"What would be impossible to change back now?"

☐ 8. The "What Ifs" (Elasticity)

Goal: How open are they to being wrong?

Look for: Regrets or thresholds for changing their mind.

Flow Prompts: "What would have to change for you to pivot again?"

"If you had a magic wand and could redo one decision..."

The Tech Check AI

Only use these if they have not mentioned technology/AI naturally yet.

☐ The Burden: "What part of this process is doing the 'heavy lifting' right now?" (Listen for: automation, software, algorithms).

☐ The Hype: "There's so much noise in the industry lately—how much of that is actually reaching your desk?" (Listen for: AI mention).

☐ The Tooling: "How much do you rely on 'the system' vs. your own judgment for this?"

☐ 10. The Final Narrative

Goal: The "Moral of the Story."

Look for: How they wrap up the story in their head.

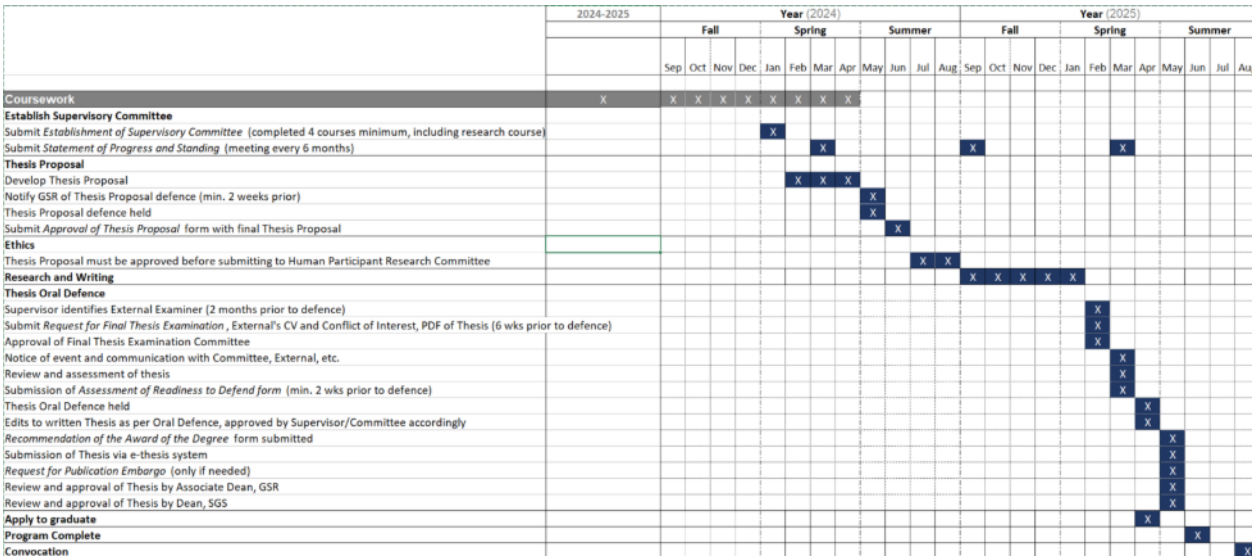
Flow Prompts: "How do you describe this 'chapter' of your career?"

"What's the one thing you want people to learn from this case?"

Project Gantt Chart

Table 21

Estimated Research Timeline



	2024-2025	Year (2024)												Year (2025)											
		Fall				Spring				Summer				Fall				Spring				Summer			
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Au
Coursework	X	X	X	X	X	X	X	X	X																
Establish Supervisory Committee																									
Submit *Establishment of Supervisory Committee* (completed 4 courses minimum, including research course)						X																			
Submit *Statement of Progress and Standing* (meeting every 6 months)								X						X						X					
Thesis Proposal																									
Develop Thesis Proposal							X	X	X																
Notify GSR of Thesis Proposal defence (min. 2 weeks prior)										X															
Thesis Proposal defence held										X															
Submit *Approval of Thesis Proposal* form with final Thesis Proposal											X														
Ethics																									
Thesis Proposal must be approved before submitting to Human Participant Research Committee												X	X												
Research and Writing														X	X	X	X	X							
Thesis Oral Defence																									
Supervisor identifies External Examiner (2 months prior to defence)																			X						
Submit *Request for Final Thesis Examination* , External's CV and Conflict of Interest, PDF of Thesis (6 wks prior to defence)																			X						
Approval of Final Thesis Examination Committee																			X						
Notice of event and communication with Committee, External, etc.																				X					
Review and assessment of thesis																				X					
Submission of *Assessment of Readiness to Defend form* (min. 2 wks prior to defence)																				X					
Thesis Oral Defence held																					X				
Edits to written Thesis as per Oral Defence, approved by Supervisor/Committee accordingly																					X				
Recommendation of the Award of the Degree form submitted																						X			
Submission of Thesis via e-thesis system																						X			
Request for Publication Embargo (only if needed)																						X			
Review and approval of Thesis by Associate Dean, GSR																						X			
Review and approval of Thesis by Dean, SGS																						X			
Apply to graduate																					X				
Program Complete																							X		
Convocation																									X

Proposed Budget

This appendix summarizes the resource assumptions used during the study planning stage and documents the budget logic applied to data collection and transcription. The project is based on semi-structured interviews, and interpretive analysis, with a strong focus on methodological rigor and practical constraints common in SME research contexts.

No formal incentives are currently planned, but the design allows for flexibility if needed; up to $100 per participant could be considered depending on response rates or case recruitment challenges. Transcription will primarily be performed manually to reduce costs and allow for close familiarity with the data. However, if time becomes constrained, up to three interviews may be outsourced for transcriptions.

Travel to participant sites is not expected in the core design, as most interviews are expected to be conducted virtually. However, if a specific opportunity arises that offers strong contextual value to the case (e.g., on-site observation, SME operations walkthrough), up to three local trips at approximately $100 each (fuel and mileage) are budgeted.

Table 22

Estimated Research Budget Summary

Category	Estimated Cost (CAD)	Notes
Transcription Services	$225 (optional)	Manual by default; outsourcing for up to 3 interviews if needed
Travel (on-site visits)	$300 (optional)	3 local trips @ $100 each, if needed for case depth
Printing & Materials	$50	Consent forms, notebooks, field prep supplies
Contingency Reserve	$100	To cover unexpected expenses
Total (Estimated Max)	$675	Reflects upper limit of predicted discretionary research costs

This proposed budget is modest and reflects a resource-conscious approach that is proper for focused qualitative research. All resources are aligned with ethical guidelines, and the breakdown supports the flexibility needed to respond to emerging research conditions while keeping data quality and confidentiality.