



Constructing Entrepreneurial Acumen in Institutional Voids: A Theory-Driven Pattern Analysis of the Unfolding Resilience Model

Nura S. Akilu^{1*}

¹Department of Business Administration, Faculty of Management Sciences Usmanu Danfodiyo University, Sokoto

*Corresponding Author

Nura S. Akilu

Department of Business
Administration, Faculty of
Management Sciences Usmanu
Danfodiyo University, Sokoto

Article History

Received: 09.08.2026

Accepted: 01.10.2026

Published: 05.10.2026

Abstract: This paper provides the first empirical test of the unfolding Resilience Sequence, a theoretical framework that explains how entrepreneurial disposition to produce evolves into Entrepreneurial Acumen within institutional voids. While prior research has examined isolated mechanisms such as bricolage and effectuation, limited attention has been given to the full sequential process through which sustained productive capacity unfolds under persistent constraint. Addressing this gap, the paper employs a qualitative single-case design using deductive pattern matching to examine the entrepreneurial journey of Muhammad Abubakar, founder of L&Z Integrated Farms, Nigeria's leading agribusiness venture. Drawing on multiple biographical sources, the analysis operationalises nine constructs: Perceived Feasibility, Enacting Activity, Bilateral Attribution, Relationship Building, Interdependent Exertion, Collective Imagination, Generated Outcomes, Prototype Emergence, and Entrepreneurial Acumen, into observable textual indicators. Findings reveal strong empirical support for all nine propositions, with constructs appearing in the exact predicted sequential order. The results demonstrate that sustained entrepreneurial production is not a singular capacity but a cumulative, dialectical progression of cognitive, relational, and behavioural stages. The study contributes to entrepreneurship theory by validating a process-based model of regenerative production, advancing deductive pattern matching in narrative research, and offering practical insights for entrepreneurs, policymakers, and educators operating in resource-constrained environments.

Keywords: Deductive Pattern Matching, Institutional Voids, Entrepreneurial Resilience, Regenerative Production, Entrepreneurial Acumen, Agribusiness, Nigeria.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

Entrepreneurial activity in environments characterised by institutional voids or the absence of market intermediaries, regulatory enforcement, and supportive infrastructure (Mair & Marti, 2009; Khanna & Palepu, 2010), remains a central concern in entrepreneurship research. While scholars have examined how entrepreneurs navigate such voids through bricolage (Baker & Nelson, 2005) and

effectuation (Sarasvathy, 2001), limited attention has been given to the *sustained* productive capacity that enables entrepreneurs not merely to survive, but to regenerate value over time under persistent constraint. This gap is particularly acute in sub-Saharan African contexts, where fragmented markets, inadequate infrastructure, and weak formal support systems are enduring features rather than temporary disruptions (Zoogah *et al.*, 2015). To

Citation: Akilu, N. S. (2026). Constructing Entrepreneurial Acumen in Institutional Voids: A Theory-Driven Pattern Analysis of the Unfolding Resilience Model; *Glob Acad J Econ Buss*, 8(5), 1571-1583. <https://doi.org/10.36348/gajeb.2026.v08i05.045>

address this gap, a theoretical model of unfolding Resilience Sequence, (Akilu, 2026c), proposes a nine-construct causal chain from Perceived Feasibility (PF) to Entrepreneurial Acumen (EA). The model advances earlier work on venture cognizance (Akilu, 2026a) and executory acumen (Akilu, 2026b) by shifting analytical focus from action initiation and decisional responsibility to regenerative production, the capacity to sustain and adapt productive activity under institutional friction. It posits that entrepreneurial resilience unfolds as an ordered, dialectical progression, with each antecedent-consequence pair increasing the probability of advancing to the next stage. However, this model has not yet been empirically tested.

The present paper conducts such a test using deductive pattern matching (Yin, 2018; Sinkovics, 2018), a qualitative technique that compares empirical patterns from a case narrative with theoretically predicted patterns. We select the revelatory case (Yin, 2018) of Muhammad Abubakar, founder of L&Z Integrated Farms, one of Nigeria's largest agribusiness ventures. Abubakar built a multibillion naira dairy enterprise from modest beginnings, operating in an extreme institutional void characterised by fragmented agricultural markets, inadequate infrastructure, weak formal support for agribusiness, and a dairy supply chain dominated by nomadic pastoralists. His detailed biographical narrative, compiled from multiple published sources, offers a rare window into the cognitive, relational, and behavioural dynamics of sustained productive capacity under extreme constraint.

The question being explored in this paper goes as follows: *To what extent does the narrative of Muhammad Abubakar's entrepreneurial journey match the sequential construct chain from Perceived Feasibility to Entrepreneurial Acumen as predicted by the unfolding Resilience Sequence?*

In our attempt at answering this question, we make three contributions. First, we provide the first empirical test of the unfolding Resilience Sequence, confirming its internal logic while identifying contextual refinements (e.g., the role of family embeddedness). Second, we demonstrate how deductive pattern matching can be operationalised for resilience-focused process models. Third, we extend the literature on institutional voids by showing that sustained entrepreneurial production is not a single capability but a cumulative sequence of

cognitive, relational, and behavioural stages, each of which could be observed in the lives of successful entrepreneurs.

The paper proceeds as follows. Section 2 summarises the Resilience Sequence and its nine propositions. Section 3 describes the deductive pattern-matching methodology, case selection, and analytical procedure. Section 4 presents the findings, including a construct-by-construct matching table. Section 5 discusses the theoretical and practical implications. Section 6 presents the summary of findings, limitations, and future research directions. Section 7 concludes the paper.

2. THEORETICAL FRAMEWORK: THE UNFOLDING RESILIENCE SEQUENCE

This section summarises the Resilience Sequence, a theoretical model of entrepreneurial productive capacity in institutional voids (Akilu, 2026c). The model posits that sustained production under constraint unfolds as a sequential, dialectical progression of eight antecedent-consequence pairs, culminating in Entrepreneurial Acumen. Each construct is defined, its theoretical grounding noted, and its role in the sequence explained. The section concludes with the nine formal propositions.

2.1 Institutional Voids as the Contextual Backdrop

Institutional voids refer to the absence of market intermediaries (e.g., banks, legal enforcement, quality certification) and weak regulatory frameworks that render standard business operations risky or impossible (Khanna & Palepu, 2010; Mair & Marti, 2009). In such environments, entrepreneurs cannot rely on formal institutions to reduce uncertainty or sustain production. The Resilience Sequence theorises how they nevertheless persist in generating value, by building an internal, stepwise scaffold of feasibility belief, enacting activity, relational recognition, trust-based alliances, coordinated exertion, collective imagination, generated outcomes, prototype emergence, and finally embodied entrepreneurial acumen.

2.2 The Nine Constructs of the Resilience Sequence

The sequence moves from Perceived Feasibility (PF) to Entrepreneurial Acumen (EA) through seven intermediate constructs. Table 1 defines each construct and identifies its primary theoretical anchor.

Table 1: Constructs of the Unfolding Resilience Sequence

CONSTRUCT	DEFINITION (AKILU, 2026C)	PRIMARY THEORETICAL ANCHOR
Perceived Feasibility (PF)	Situated belief in the capacity to generate tangible outputs within prevailing constraints, internally constructed and dynamically recalibrated through lived engagement with adversity.	Self-Efficacy Theory (Bandura, 1997); Resilience Theory (Williams & Shepherd, 2016)
Enacting Activity (EA)	Deliberate, outcome-oriented productive behaviours that translate feasibility belief into engagement with the environment through purposeful attempts to generate material outputs.	Enactment Theory (Weick, 1979, 1995); Agency Theory (Emirbayer & Mische, 1998)
Bilateral Attribution (BA)	Mutual recognition of agency and responsibility between the entrepreneur and other actors, reflecting shared causality and interdependence.	Attribution Theory (Heider, 1958; Weiner, 1985); Institutional Work (Lawrence & Suddaby, 2006)
Relationship Building (RB)	Intentional cultivation of trust-based alliances that support and stabilise production under institutional fragility, functioning as substitutes for missing formal infrastructures.	Social Capital Theory (Uzzi, 1997; Larson, 1992); Network Theory (Aldrich & Zimmer, 1986)
Interdependent Exertion (IE)	Coordinated productive effort in which labour, knowledge, and resources are pooled among actors with shared stakes in production outcomes.	Collective Action Theory (Ostrom, 1990); Community Entrepreneurship (Peredo & Chrisman, 2006)
Collective Imagination (CI)	Joint generation of production possibilities through shared narratives, co-created visions, and collaborative sensemaking emerging from sustained interaction.	Sociocultural Theory (Vygotsky, 1978); Sensemaking Theory (Cornelissen & Clarke, 2010)
Generated Outcomes (GO)	Tangible, observable outputs in terms of products, services, or impacts that provide feedback on the viability of the production system.	Learning Theory (Sitkin, 1992; Shepherd <i>et al.</i> , 2015); Lean Startup (Ries, 2011)
Prototype Emergence (PE)	Material consolidation of production learnings into scalable, adaptive models, reflecting a transition from episodic output to systematic production.	Prototyping Theory (Thomke, 2003; Brown & Eisenhardt, 1997); Anti-Fragility (Taleb, 2012)
Entrepreneurial Acumen (EA)	Integrated capability to transform constraint into sustained productive advantage, encompassing the ability to design, adapt, and govern systems of production that improve through adversity.	Dynamic Capabilities (Teece, 2007; Helfat <i>et al.</i> , 2007); Resilience Mastery (Duchek, 2020; Bingham & Eisenhardt, 2011)

2.3 The Sequential Dialectic

The sequence is an ordered causal chain where each antecedent-consequence pair resolves a specific production-related limitation (Akilu, 2026c):

PF → EA transforms feasibility belief into operational engagement with the environment.

EA → BA converts individual production into recognition of relational dependencies and shared causality.

BA → RB turns shared responsibility into deliberate cultivation of trust-based alliances.

RB → IE embeds relationships within coordinated, pooled effort and distributed risk.

IE → CI elevates coordinated effort into collective creativity and shared vision beyond individual cognitive limits.

CI → GO translates shared ideation into observable outputs and micro-validations.

GO → PE consolidates outputs into adaptive, replicable production systems that evolve under pressure.

PE → EA embeds systematic production as enduring, constraint-converting acumen that transforms adversity into advantage.

2.4 Propositions of the Resilience Sequence

Based on the above, Akilu (2026c, pp. 38) proposed nine propositions:

Proposition 1: Higher levels of Perceived Feasibility increase the likelihood of Enacting Activity, as adaptive self-efficacy under constraint motivates entrepreneurs to translate belief in viability into operational adjustment.

Proposition 2: Sustained Enacting Activity increases Bilateral Attribution, as continued engagement with constraints prompts entrepreneurs to recognise the

relational dependencies involved in productive effort.

Proposition 3: Stronger Bilateral Attribution enhances Relationship Building, as shared responsibility and mutual recognition catalyse the deliberate formation of trust-based alliances.

Proposition 4: More robust Relationship Building increases Interdependent Exertion, as relational infrastructures enable coordinated pooling of effort, skill, and risk.

Proposition 5: Higher levels of Interdependent Exertion strengthen Collective Imagination, as collaborative engagement under constraint generates shared ideation beyond individual cognitive limits.

Proposition 6: Greater Collective Imagination increases the likelihood of Generated Outcomes, as co-produced ideas are translated into observable micro-results and provisional achievements.

Proposition 7: More frequent Generated Outcomes increase Prototype Emergence, as iterative validation encourages the materialisation of adaptive, context-specific production forms.

Proposition 8: Advancing Prototype Emergence increases Entrepreneurial Acumen, as repeated cycles of adaptive design consolidate tacit mastery over production under constraint.

Proposition 9 (Sequential Mechanism): The Resilience Sequence operates as a cumulative, ordered mechanism in which each antecedent-consequence relationship incrementally strengthens the Disposition to Produce, ultimately culminating in Entrepreneurial Acumen as a resilient form of entrepreneurial mastery in institutional voids.

2.5 Summary

The Unfolding Resilience Sequence provides a fine-grained, testable model of how entrepreneurs sustain production when formal institutions are absent. It advances beyond previous models by centering on *regenerative production* rather than action initiation or strategic execution. The present paper empirically tests Propositions 1–9 using deductive pattern matching on a narrative case study. The next section describes the methodology for that test.

3. METHODOLOGY

3.1 Research Design

This study employs a qualitative, theory-testing single case study design using deductive pattern matching (Yin, 2018; Sinkovics, 2018). Deductive pattern matching compares empirical patterns from qualitative data against theoretically predicted patterns. If the empirical patterns correspond, the theory receives

support; if they diverge, refinement is needed (Campbell, 1966; Trochim, 1989).

The design is appropriate because the Unfolding Resilience Sequence (Akilu, 2026c) makes explicit, ordered predictions (Propositions 1–9) that can be operationalised into observable textual indicators. A single revelatory case is sufficient for initial theory testing (Yin, 2018).

3.2 Case Selection and Data Source

Case:

The case is Muhammad Abubakar, founder and chairman of L&Z Integrated Farms, one of Nigeria's largest agribusiness ventures. Selection followed purposive, theory-driven sampling (Patton, 2015) based on three criteria. First, the entrepreneurial journey occurred within a well-documented institutional void: fragmented agricultural markets, inadequate infrastructure (electricity, water, security), and weak formal support systems for agribusiness. Second, the narrative contains rich, chronologically ordered information about internal states (thoughts, emotions, beliefs) and external actions. Third, the outcome, a spectacular success (a multibillion naira agribusiness with 24,000-litre processing capacity, 160+ staff, and national distribution), ensures that the full sequence from disposition to entrepreneurial acumen could be observed (Flyvbjerg, 2006).

Data Source:

The primary data are drawn from multiple published biographical sources about Muhammad Abubakar. These include a book chapter in *Successful Nigerian entrepreneurs: How they started* (YouWiN! Connect, 2018), as well as journalistic profiles and interviews from reputable outlets such as *Daily Trust* (Shehu Abubakar, 2015; Ahmadu-Suka, 2016), *The Cable* (2015), *Reuters* (2016), and the official L&Z website. A complete list of these sources is provided in the References. For the present analysis, the relevant passages from these sources were compiled into a single coherent narrative (approximately 4,000 words). Direct quotations are attributed to their original sources in the Findings section. No alterations were made to the original wording.

3.3 Operationalizing Constructs: Pattern Indicators for Deductive Matching

Each of the nine constructs was operationalised into textual pattern indicators, specific words, phrases, or statement types that signal the presence of that construct in narrative data. Table 2 presents the operationalisation, developed prior to data analysis (confirmatory approach).

Table 2: Construct Operationalisation and Pattern Indicators for the Resilience Sequence

CONSTRUCT	DEFINITION (AKILU, 2026C)	TEXTUAL PATTERN INDICATORS (WHAT TO LOOK FOR)
Perceived Feasibility (PF)	Situated belief in the capacity to generate tangible outputs within prevailing constraints, internally constructed and dynamically recalibrated through lived engagement with adversity.	Statements affirming productive possibility despite obstacles; "I knew I could make something happen"; references to believing in one's ability to produce under difficult conditions; internally validated confidence not dependent on external approval.
Enacting Activity (EA)	Deliberate, outcome-oriented productive behaviours that translate feasibility belief into engagement with the environment through purposeful attempts to generate material outputs.	Descriptions of tangible production activities; assembling, fabricating, cultivating, or delivering; purposeful action aimed at generating outputs; "I started producing"; evidence of material creation rather than planning or testing.
Bilateral Attribution (BA)	Mutual recognition of agency and responsibility between the entrepreneur and other actors, reflecting shared causality and interdependence.	References to shared responsibility; acknowledging others' contributions to outcomes; "We made this happen together"; recognition that success depends on mutual dependencies; moving from "I" to "we" in attributing results.
Relationship Building (RB)	Intentional cultivation of trust-based alliances that support and stabilise production under institutional fragility, functioning as substitutes for missing formal infrastructures.	Deliberate cultivation of alliances; references to trust, collaboration, partnerships; forming relationships with community actors, informal regulators, or resource holders; relationships functioning as infrastructure.
Interdependent Exertion (IE)	Coordinated productive effort in which labour, knowledge, and resources are pooled among actors with shared stakes in production outcomes.	Descriptions of pooling resources, labour, or knowledge; coordinated production efforts; role differentiation; reliance on others for productive capacity; scaling through collaboration rather than capital.
Collective Imagination (CI)	Joint generation of production possibilities through shared narratives, co-created visions, and collaborative sensemaking emerging from sustained interaction.	Co-creation of visions; shared narratives about the future; collaborative sensemaking; "We imagined what could be"; innovative ideas emerging from group interaction; creative recomposition of resources.
Generated Outcomes (GO)	Tangible, observable outputs in terms of products, services, or impacts that provide feedback on the viability of the production system.	Observable products, services, or impacts; micro-successes or small wins; tangible evidence of production; feedback from outputs; "We could see results"; provisional achievements.
Prototype Emergence (PE)	Material consolidation of production learnings into scalable, adaptive models, reflecting a transition from episodic output to systematic production.	Tangible prototypes or models; adaptive systems emerging; replicable processes; "We developed a system"; anti-fragile production forms; evolution from improvisation to patterned capability.
Entrepreneurial Acumen (EA)	Integrated capability to transform constraint into sustained productive advantage, encompassing the ability to design, adapt, and govern systems of production that improve through adversity.	Reflective mastery of production under constraint; tacit understanding of mobilising effort, trust, imagination, and iteration; capacity to fold constraint into advantage; statements of enduring capability; "I learned to turn obstacles into opportunities."

3.4 Analytical Procedure

The analysis followed a step-by-step procedure (Lincoln & Guba, 1985): (1) familiarisation: reading the narrative three times; (2) construct coding: scanning sequentially for pattern indicators, extracting verbatim quotes;

(3) sequence verification: checking order PF → EA → BA → RB → IE → CI → GO → PE → EA; (4) proposition testing: examining whether each antecedent temporally precedes the consequent; (5) negative case analysis: noting any missing or out-of-order constructs.

3.5 Trustworthiness

Four criteria were addressed (Lincoln & Guba, 1985; Shenton, 2004). Credibility: Direct quotations are used throughout, attributed to original sources. Dependability: An audit trail (narrative, coding table, sequence log) is maintained. Confirmability: Theoretical stance declared a priori; implicit constructs noted. Transferability: Thick description of the institutional void (fragmented agricultural markets, inadequate infrastructure, weak formal support) is provided.

4. FINDINGS

This section presents the results of the deductive pattern matching analysis. Table 3 provides a construct-by-construct summary of evidence, including verbatim quotes. A narrative walkthrough follows, then evaluation of Propositions 1–9.

4.1 Pattern Matching Summary

Table 3: Empirical Evidence for Each Construct of the Resilience Sequence in the Muhammad Abubakar Narrative

CONSTRUCT	VERBATIM QUOTE FROM NARRATIVE (WITH SOURCE ATTRIBUTION)	STATUS	SEQUENCE POSITION
Perceived Feasibility (PF)	<i>"My mother, though she never attended any school, told me this: if you want to make money, be in business. If you just want to sustain your life, work for the government."</i> (YouWiN! Connect, 2018) <i>"I was a primary school pupil when she told me this. I don't even know where she got the idea from, but these words have inspired me through life."</i> (YouWiN! Connect, 2018)	✓ Explicit	1st
Enacting Activity (EA)	<i>"First, we established the market by trading in products we bought from other places. Next, we backward integrated into producing the same thing."</i> (YouWiN! Connect, 2018) <i>"We processed the small milk we got into fresh milk and started selling right there."</i> (YouWiN! Connect, 2018)	✓ Explicit	2nd
Bilateral Attribution (BA)	<i>"One of my wives is a lawyer; she oversees marketing. The other is a biologist; she takes charge of production. I man the farm. That was how we started."</i> (YouWiN! Connect, 2018) <i>"The three of us are directors and I am the chairman. This is how we operate, and for the past fifteen years we have not had any major issue."</i> (YouWiN! Connect, 2018)	✓ Explicit	3rd
Relationship Building (RB)	<i>"We taught them how to increase their yield even from few cows. We encouraged them to buy land and give their herd good nutrition."</i> (YouWiN! Connect, 2018) <i>"We did this with the help of international development partners, who helped us to train them on how to improve their cattle and how to crossbreed."</i> (YouWiN! Connect, 2018)	✓ Explicit	4th
Interdependent Exertion (IE)	<i>"We continued to go round and buy milk from the pastoralists who have decided to produce, and we also produce our own. Therefore, we have enough milk to process."</i> (YouWiN! Connect, 2018) <i>"We have a special scholarship fund for the children of the pastoralists who sell milk to us. We used the fund to sponsor their children in private schools."</i> (YouWiN! Connect, 2018)	✓ Explicit	5th
Collective Imagination (CI)	<i>"We realised that the best thing was to crossbreed and produce cows that could resist tropical diseases and at the same time give high yields of milk."</i> (YouWiN! Connect, 2018) <i>"We crossbred, and in ten years, we have been able to get cows</i>	✓ Explicit	6th

CONSTRUCT	VERBATIM QUOTE FROM NARRATIVE (WITH SOURCE ATTRIBUTION)	STATUS	SEQUENCE POSITION
	<i>on the farm that give us an average of sixteen litres per day." (YouWiN! Connect, 2018)</i>		
Generated Outcomes (GO)	<i>"Because we advertised, people knew where to get fresh milk, and in time, demand exceeded supply." (YouWiN! Connect, 2018)</i> <i>"L&Z's dairy products enjoy brisk sales across Nigeria's vast and expanding consumer market." (YouWiN! Connect, 2018)</i>	✓ Explicit	7th
Prototype Emergence (PE)	<i>"We have a replication of the business in Abuja. It is just coming up and my first wife is the MD/CEO." (YouWiN! Connect, 2018)</i> <i>"The company's dairy products enjoy brisk sales across Nigeria's vast and expanding consumer market. Its farm... has a 24,000-litre capacity plant." (YouWiN! Connect, 2018)</i>	✓ Explicit	8th
Entrepreneurial Acumen (EA)	<i>"Innovation provides solutions. That is what the likes of Bill Gates, Bezos, Zuckerberg [do] – providing a solution. Look at where there is a problem and provide solutions. Be a solution provider." (YouWiN! Connect, 2018)</i> <i>"The job is made easier when you share the responsibility with your family... Share your dream with your spouse. Most women will share in your dream." (YouWiN! Connect, 2018)</i> <i>"Young people need to realise the potential that we have in the country. There is no country that has opportunities like Nigeria." (YouWiN! Connect, 2018)</i>	✓ Explicit	9th

4.2 Narrative Walkthrough: Sequential Emergence of Constructs Perceived Feasibility (PF)

The narrative begins with Abubakar's mother's advice, received in primary school: *"If you want to make money, be in business."* This statement anchored his belief that productive endeavour was possible despite his circumstances. He carried this conviction through primary and secondary school, university, and his banking career. This is PF: a situated belief in the capacity to generate tangible outputs within prevailing constraints, internally constructed and dynamically recalibrated.

Enacting Activity (EA)

After leaving banking, Abubakar did not merely plan; he began producing. First, he established a market by trading in dairy products bought from others. Then, he backward integrated into producing the same thing. He started with fifty local cows and processed the small milk yield into fresh milk for sale. This is EA: deliberate, outcome-oriented productive behaviours that translate feasibility belief into engagement with the environment.

Bilateral Attribution (BA)

Abubakar explicitly recognises that production depends on mutual contributions. He

describes his two wives' roles – one oversees marketing, the other production – and states: *"The three of us are directors and I am the chairman. This is how we operate."* He also acknowledges the contribution of his employees and partners. This is BA: mutual recognition of agency and responsibility between the entrepreneur and other actors.

Relationship Building (RB)

When supply became a challenge, Abubakar did not simply seek transactional arrangements. He intentionally cultivated trust-based alliances with nomadic pastoralists. He taught them how to increase yield, encouraged them to buy land, and, with the help of international development partners, trained them to improve their cattle. This is RB: intentional cultivation of trust-based alliances that support and stabilise production under institutional fragility.

Interdependent Exertion (IE)

The relationship with pastoralists evolved into coordinated, pooled effort. Abubakar describes: *"We continued to go round and buy milk from the pastoralists who have decided to produce, and we also produce our own."* He also established a scholarship fund for the children of pastoralists, embedding production within a system of shared stakes. This is IE: coordinated productive effort in

which labour, knowledge, and resources are pooled among actors with shared stakes.

Collective Imagination (CI)

Abubakar and his team did not merely replicate existing practices; they co-created new production possibilities. They realised that local cows could not meet demand, so they imagined crossbreeding to produce cows resistant to tropical diseases with higher yields. They travelled to Kenya and other countries to observe best practices, and then implemented crossbreeding. This is CI: joint generation of production possibilities through shared narratives, co-created visions, and collaborative sensemaking.

Generated Outcomes (GO)

The narrative provides evidence of tangible outputs: demand exceeded supply, brisk sales across Nigeria, and the farm's 24,000-litre capacity plant. These are not final achievements but micro-validations that provided feedback on the viability of the production system. This is GO: tangible, observable outputs that provide feedback on the viability of the production system.

Prototype Emergence (PE)

Abubakar did not stop at one location. He replicated the business in Abuja, with his first wife as MD/CEO. The Kano operation evolved into a systematic, scalable model with a 24,000-litre plant and national distribution. This is PE: material consolidation of production learnings into scalable, adaptive models, reflecting a transition from episodic output to systematic production.

Entrepreneurial Acumen (EA)

In his reflective statements, Abubakar articulates an integrated capability to transform constraint into sustained advantage. He advises: *"Innovation provides solutions... Look at where there is a problem and provide solutions."* He speaks of sharing dreams with spouses, maintaining high ethical standards, and having a board. These are not textbook rules but lived, tacit knowledge. This is EA: the integrated capability to transform constraint into sustained productive advantage.

4.3 Support for Propositions

Proposition 1 (PF → EA): Supported. Abubakar's feasibility belief (mother's advice) preceded his enacting activity (trading, backward integration, milk processing).

Proposition 2 (EA → BA): Supported. Sustained enacting activity (producing and selling milk) led to recognition of relational dependencies (wives' roles, employee contributions).

Proposition 3 (BA → RB): Supported. Shared responsibility (acknowledging wives and employees)

catalysed deliberate relationship building (training pastoralists, engaging development partners).

Proposition 4 (RB → IE): Supported. Trust-based alliances (with pastoralists) enabled interdependent exertion (coordinated milk collection, scholarship fund).

Proposition 5 (IE → CI): Supported. Interdependent exertion (pooled effort with pastoralists) generated collective imagination (crossbreeding, yield improvement).

Proposition 6 (CI → GO): Supported. Collective imagination (crossbreeding vision) produced generated outcomes (increased milk yield, brisk sales, demand exceeding supply).

Proposition 7 (GO → PE): Supported. Generated outcomes (brisk sales, demand) encouraged prototype emergence (replication in Abuja, 24,000-litre plant).

Proposition 8 (PE → EA): Supported. Advancing prototype emergence (systematic production, replication) consolidated entrepreneurial acumen (reflective mastery, solution-oriented philosophy).

Proposition 9 (Sequential mechanism): The narrative fully supports the cumulative, ordered mechanism. All nine constructs appear in the predicted sequence (PF → EA → BA → RB → IE → CI → GO → PE → EA). No construct is missing. No later construct appears before an earlier one.

4.4 Summary of Findings

The deductive pattern matching analysis confirms that the Muhammad Abubakar narrative corresponds closely to the theoretical Resilience Sequence. All nine constructs are explicitly present in the text. The sequential order matches the theoretical predictions exactly. Propositions 1 through 9 are therefore supported. The narrative provides a real-world instantiation of how an entrepreneur moves from feasibility belief, through enacting activity, relational recognition, trust-based alliances, coordinated exertion, collective imagination, generated outcomes, prototype emergence, and finally to embodied entrepreneurial acumen – all within a severe institutional void of fragmented agricultural markets and inadequate infrastructure.

5. DISCUSSION

This study set out to empirically test the Resilience Sequence (Akilu, 2026c) using deductive pattern matching on the narrative case of Muhammad Abubakar, founder of L&Z Integrated Farms in Nigeria. The findings provide strong support for the theoretical model: all nine constructs were identified in the narrative, and they appeared in the predicted sequential order (PF → EA → BA → RB → IE → CI → GO → PE → EA). Propositions 1 through 9 were confirmed. Below, we interpret these results, compare them with alternative theoretical

perspectives, discuss contextual refinements, and draw implications for research and practice.

5.1 Theoretical Implications

5.1.1 The Resilience Sequence as a Valid Process Model

The confirmation of the full sequential chain suggests that sustained productive capacity in institutional voids is not a single, undifferentiated capability but a cumulative, ordered progression. This finding challenges the implicit assumption that resilience is simply "bouncing back" or psychological coping. Abubakar's journey shows that regenerative production emerges through a sequence: feasibility belief must be enacted (PF → EA), enactment must recognise relational dependencies (EA → BA), relational recognition must build trust-based alliances (BA → RB), alliances must enable coordinated exertion (RB → IE), coordinated exertion must generate collective imagination (IE → CI), imagination must produce tangible outcomes (CI → GO), outcomes must consolidate into prototypes (GO → PE), and prototypes must embed entrepreneurial acumen (PE → EA). The model thus offers a granular account of how resilience becomes a structural property of production systems.

5.1.2 The Distinct Role of Bilateral Attribution

Among the nine constructs, Bilateral Attribution (BA) marks a critical departure from individualistic models of entrepreneurship. Abubakar did not attribute success solely to his own effort; he explicitly recognised his wives, employees, and pastoralist partners as co-producers. This shift from "I" to "we" in attributing outcomes is particularly significant in institutional voids, where lone agency is often insufficient. Future research could distinguish between unilateral attribution (common in Western entrepreneurship discourse) and bilateral attribution (more prevalent in collectivist or resource-constrained contexts).

5.1.3 Entrepreneurial Acumen as Regenerative Mastery

The presence of Entrepreneurial Acumen (EA) only after Prototype Emergence (PE) supports the theoretical claim that full productive mastery is practice-dependent (Polanyi, 1966; Duchek, 2020). Abubakar's reflective statements – "Innovation provides solutions," "Share your dream with your spouse," "There is no country that has opportunities like Nigeria" – exemplify a kind of knowing that cannot be acquired through formal education alone. This resonates with the concept of *anti-fragility* (Taleb, 2012), where systems improve through adversity.

5.2 Comparison with Alternative Theories

5.2.1 Effectuation (Sarvasvathy, 2001)

Effectuation emphasises means-driven action, affordable loss, and partnerships. Abubakar did engage in effectual logic (using personal savings, starting small, building partnerships). However, the Resilience Sequence reveals that effectuation appeared at specific stages – Enacting Activity (EA) and Relationship Building (RB) – after Perceived Feasibility (PF). Effectuation did not come first; it followed feasibility belief and relational recognition. This suggests that effectuation is not a starting logic but an *enacting and relational* logic that follows initial sense-making and attributional shifts.

5.2.2 Bricolage (Baker & Nelson, 2005)

Bricolage – making do with what is at hand – is evident in Abubakar's resource recombination (trading as a side business, training pastoralists, using solar panels to serve both business and home). However, bricolage appears at multiple stages – Enacting Activity (EA), Relationship Building (RB), and Interdependent Exertion (IE) – rather than as a single entry point. This suggests that bricolage is not a one-time tactic but a *recurrent developmental mechanism* that evolves as relationships and coordination deepen.

5.2.3 Self-Efficacy Theory (Bandura, 1997)

Perceived Feasibility (PF) shares features with self-efficacy – the belief in one's capacity to execute actions. However, PF is specifically *production-oriented* and *situationally calibrated* rather than generalised. Abubakar's feasibility belief was not abstract confidence; it was grounded in his mother's advice and reinforced through banking experience. This suggests that PF is a *context-specific, narratively anchored* belief rather than a stable personality trait.

5.3 Contextual Refinements: The Role of Family and Community

The narrative repeatedly emphasises the centrality of Abubakar's family – his two wives, his mother's advice – and the pastoralist community in sustaining production. The Resilience Sequence, as originally formulated (Akilu, 2026c), acknowledges relational constructs (BA, RB, IE) but does not explicitly theorise *family embeddedness* as a distinct dimension. This case suggests a refinement: Family-Embedded Production (FEP) may be a distinct sub-process within Relationship Building (RB) and Interdependent Exertion (IE), where familial relationships function as productive infrastructure. Propositions for future research could include the following:

- i. **Proposition:** In family-embedded ventures, Relationship Building is accelerated by

pre-existing trust and shared identity, strengthening the transition from BA to RB.

- ii. **Proposition:** Family-embedded production moderates the relationship between IE and CI, as shared familial narratives amplify collective imagination.

This refinement does not invalidate the Resilience Sequence but integrates family business theory (Aldrich & Cliff, 2003) into the resilience framework.

5.4 Methodological and Practical Implications

The study demonstrates that deductive pattern matching can be systematically applied to narrative biographical data for theory testing in resilience research. A critical methodological lesson is that operationalisation is essential; the pattern indicator table allowed the researchers to search the text with pre-specified criteria, reducing the risk of ex post rationalisation. Explicit constructs are preferable because they increase coding confidence, and preserving temporal order is vital for process theories, with the chronological walkthrough providing a useful template for future qualitative researchers testing resilience process models using archival or interview narratives.

For entrepreneurs operating in institutional voids, the Resilience Sequence serves as a diagnostic self-assessment ladder. An entrepreneur can identify which stage they are stuck at: if they have feasibility belief but no enacting activity, they need to start producing rather than planning; if they are enacting but not recognising relational dependencies, they need to acknowledge others' contributions; if they have relationships but no interdependent exertion, they need to coordinate pooled effort; if they are coordinating but not imagining collectively, they need to co-create visions; if they have outcomes but no prototype, they need to consolidate learnings into systematic models.

Policymakers and development agencies often focus on funding or infrastructure, but the sequence suggests that earlier stages – particularly Perceived Feasibility (PF) and Enacting Activity (EA) – are neglected. Programmes that help entrepreneurs articulate feasibility narratives (e.g., storytelling workshops, mentorship from successful peers) and support early-stage production (e.g., micro-grants for raw materials, access to shared production facilities) could improve progression to later stages. Relational interventions – such as facilitating partnerships between entrepreneurs and pastoralists or community groups – could also support Bilateral Attribution (BA) and Relationship Building (RB).

For educators, the findings indicate that entrepreneurship curricula in developing economies should go beyond business plan writing and financial management to include modules on feasibility narratives, relational recognition, and collective imagination. Importantly, the sequence matters: formal education became valuable only after Abubakar had traversed earlier stages, so curricula should be sequenced starting with experiential production, then relational and collaborative skills, and finally formal strategic tools.

5.5 Limitations of the Present Discussion

Two points must be acknowledged. First, the comparison with effectuation and bricolage is based on a single case; findings remain contextual. Second, the refinement regarding family-embedded production is speculative – it arose from the data but was not systematically tested. Future research should examine how family dynamics interact with the Resilience Sequence using multiple cases or longitudinal designs.

6. SUMMARY OF FINDINGS

This paper conducted the first empirical test of the Unfolding Resilience Sequence (Akilu, 2026c), a theoretical model of entrepreneurial disposition to produce and the sequential emergence of entrepreneurial acumen in institutional voids. Using deductive pattern matching on the narrative case of Muhammad Abubakar, founder of L&Z Integrated Farms, we found full support for the model: all nine constructs were identified in the narrative and appeared in the exact predicted order, confirming Propositions 1 through 9. The case is particularly instructive because it represents an extreme institutional void, fragmented agricultural markets, inadequate infrastructure, weak formal support for agribusiness, and a dairy supply chain dominated by nomadic pastoralists. That the sequence held under such adverse conditions suggests it captures a robust, progressive logic of regenerative production.

6.1 Limitations

Several limitations warrant consideration. First, while a revelatory single case is appropriate for initial theory testing (Yin, 2018), the findings cannot be generalised statistically; the sequence may unfold differently across other institutional voids or cultural contexts, necessitating replication across multiple cases. Second, the reliance on published biographical accounts and interviews rather than real-time observations introduces retrospective narrative bias, though consistency across multiple independent sources mitigates this concern; future research should employ longitudinal, real-time data such as diaries or weekly interviews. Third, triangulation with original interviews with Abubakar, his family, employees, or pastoralist partners would strengthen

validity, and independent coding by multiple researchers would improve reliability. Fourth, the model does not explicitly account for family dynamics as productive infrastructure, yet Abubakar's success is deeply embedded in his family structure, his wives are key executives, suggesting a need to examine how family relationships influence the sequence. Finally, as Abubakar operates in a patriarchal context, the sequence may operate differently for female entrepreneurs facing additional institutional voids such as unequal access to credit, networks.

6.2 Future Research Directions

Researchers could replicate this deductive pattern matching procedure with other entrepreneurs operating in institutional voids, such as women agri-entrepreneurs in off-grid communities or renewable energy founders in unbanked regions to determine which constructs are necessary versus sufficient for regenerative production. The nine constructs could also be developed into a survey instrument for cross-sectional testing of causal ordering using structural equation modelling, while weekly structured interviews with nascent entrepreneurs would eliminate retrospective bias and allow observation of recursions.

Cross-cultural studies are also needed, as the model was derived from Western theories but applied to an African context; such research might reveal that certain constructs, like Bilateral Attribution, are more critical in collectivist cultures where interdependence is the norm. Finally, future research should examine whether the sequence differs for female entrepreneurs facing additional institutional voids or for ventures without family involvement, as Abubakar's success as a family-embedded entrepreneur warrants deeper investigation into how family dynamics enable or constrain regenerative production.

7. CONCLUSION

The Unfolding Resilience Sequence conceptualises sustainable production under institutional friction as a structured dialectic progressing through nine stages. Following the story of Muhammad Abubakar, this paper has demonstrated empirical support for the sequence in a real-world case. From a primary school pupil inspired by his mother's wisdom to the founder of a multibillion naira agribusiness, Abubakar's journey exemplifies each stage: perceived feasibility awakened enacting activity, which transformed into bilateral attribution, catalysed relationship building, enabled interdependent exertion, generated collective imagination, produced tangible outcomes, consolidated into prototype emergence, and crystallised into entrepreneurial acumen.

In institutional voids, the absence of formal infrastructure, reliable supply chains, and predictable markets forces entrepreneurs to build their own productive scaffolding. The Resilience Sequence describes the cognitive, relational, and behavioural stages that, when traversed in order, enable entrepreneurial production to become regenerative even when institutions fail. This study has provided the first empirical test of that unfolding. Future research could test the sequence in other contexts, with other entrepreneurs, and using other methods.

REFERENCES

- Ahmadu-Suka, M. (2016, April 5). SON seals multi-million naira yogurt firm in Kaduna. *Daily Trust*.
- Akilu, N. S. (2026a). Unfolding endeavor: A theoretical model of entrepreneurial disposition to act and the sequential emergence of venture cognizance in institutional voids. *Global Journal of Research in Business Management*, 6(2), 52–60. <https://doi.org/10.5281/zenodo.19113562>
- Akilu, N. S. Executing Endeavor: A Theoretical Model of Entrepreneurial Disposition to Choose and the Sequential Emergence of Executory Acumen in Institutional Voids. In *Global Journal of Research in Business Management* (Vol. 6, Number 2, pp. 42–51). <https://doi.org/10.5281/zenodo.19113376>
- Akilu, N. S. (2026c). Unfolding Resilience: A Theoretical Model of Disposition to Produce and the Sequential Emergence of Entrepreneurial Acumen in Institutional Voids. *Middle East Res J Econ Management*, 6(2): 32-4 DOI: <https://doi.org/10.36348/merjem.2026.v06i02.001>
- Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573–596. [https://doi.org/10.1016/S0883-9026\(03\)00011-9](https://doi.org/10.1016/S0883-9026(03)00011-9)
- Aldrich, H. E., & Zimmer, C. (1986). Entrepreneurship through social networks. In D. L. Sexton & R. W. Smilor (Eds.), *The art and science of entrepreneurship* (pp. 3–23). Ballinger.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366. <https://doi.org/10.2189/asqu.2005.50.3.329>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Bingham, C. B., & Eisenhardt, K. M. (2011). Rational heuristics: The 'simple rules' that

- strategists learn from process experience. *Strategic Management Journal*, *32*(13), 1437–1464. <https://doi.org/10.1002/smj.965>
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, *42*(1), 1–34. <https://doi.org/10.2307/2393807>
 - Campbell, D. T. (1966). Pattern matching as an essential in distal knowing. In K. R. Hammond (Ed.), *The psychology of Egon Brunswik* (pp. 81–106). Holt, Rinehart and Winston.
 - The Cable. (2015, January 7). FAFIN, L & Z Farms team up to boost local milk production. *The Cable*. <https://www.thecable.ng/fafin-l-z-farms-team-boost-local-milk-production>
 - Cornelissen, J. P., & Clarke, J. S. (2010). Imagining and rationalizing opportunities: Inductive reasoning and the creation and justification of new ventures. *Academy of Management Review*, *35*(4), 539–557. <https://doi.org/10.5465/amr.2010.53502700>
 - Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research*, *13*(1), 215–246. <https://doi.org/10.1007/s40685-019-0085-7>
 - Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, *103*(4), 962–1023. <https://doi.org/10.1086/231294>
 - Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245. <https://doi.org/10.1177/1077800405284363>
 - Heider, F. (1958). *The psychology of interpersonal relations*. Wiley. <https://doi.org/10.1037/10628-000>
 - Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. J., & Winter, S. G. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. Blackwell.
 - Khanna, T., & Palepu, K. G. (2010). *Winning in emerging markets: A road map for strategy and execution*. Harvard Business Review Press.
 - Larson, A. (1992). Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly*, *37*(1), 76–104. <https://doi.org/10.2307/2393534>
 - Lawrence, T. B., & Suddaby, R. (2006). Institutions and institutional work. In S. R. Clegg, C. Hardy, T. B. Lawrence, & W. R. Nord (Eds.), *The SAGE handbook of organization studies* (2nd ed., pp. 215–254). SAGE Publications.
 - Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
 - Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, *24*(5), 419–435. <https://doi.org/10.1016/j.jbusvent.2008.04.006>
 - Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511807763>
 - Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE Publications.
 - Peredo, A. M., & Chrisman, J. J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review*, *31*(2), 309–328. <https://doi.org/10.5465/amr.2006.20208683>
 - Polanyi, M. (1966). *The tacit dimension*. University of Chicago Press.
 - Reuters. (2016, February 18). Nigeria's plans to milk dairy industry. *Reuters*. <https://www.reuters.com/video/2016/02/18/nigerias-plans-to-milk-dairy-industry?videoId=367440980>
 - Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown Business.
 - Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243–263. <https://doi.org/10.5465/amr.2001.4378020>
 - Shehu Abubakar. (2015, January 8). Inside L & Z milk factory where quality, hygiene matter. *Daily Trust*. <https://www.dailytrust.com.ng/daily/agriculture/43803-inside-l-z-milk-factory-where-quality-hygiene-matter>
 - Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63–75. <https://doi.org/10.3233/EFI-2004-22201>
 - Shepherd, D. A., Williams, T. A., & Patzelt, H. (2015). Thinking about entrepreneurial decision making: Review and research agenda. *Journal of Management*, *41*(1), 11–46. <https://doi.org/10.1177/0149206314541153>
 - Sinkovics, N. (2018). Pattern matching in qualitative analysis. In C. Cassell, A. L. Cunliffe, & G. Grandy (Eds.), *The SAGE handbook of qualitative business and management research*

- methods (pp. 468–485). SAGE Publications. <https://doi.org/10.4135/9781526430236.n28>
- Sitkin, S. B. (1992). Learning through failure: The strategy of small losses. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 14, pp. 231–266). JAI Press.
 - Taleb, N. N. (2012). *Antifragile: Things that gain from disorder*. Random House.
 - Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350. <https://doi.org/10.1002/smj.640>
 - Thomke, S. (2003). *Experimentation matters: Unlocking the potential of new technologies for innovation*. Harvard Business School Press.
 - Trochim, W. M. K. (1989). Outcome pattern matching and program theory. *Evaluation and Program Planning*, *12*(4), 355–366. [https://doi.org/10.1016/0149-7189\(89\)90052-9](https://doi.org/10.1016/0149-7189(89)90052-9)
 - Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, *42*(1), 35–67. <https://doi.org/10.2307/2393808>
 - Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
 - Weick, K. E. (1979). *The social psychology of organizing* (2nd ed.). Addison-Wesley.
 - Weick, K. E. (1995). *Sensemaking in organizations*. SAGE Publications.
 - Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*(4), 548–573. <https://doi.org/10.1037/0033-295X.92.4.548>
 - Williams, T. A., & Shepherd, D. A. (2016). Building resilience or providing sustenance: Different paths of emergent ventures in the aftermath of the Haiti earthquake. *Academy of Management Journal*, *59*(6), 2069–2102. <https://doi.org/10.5465/amj.2015.0682>
 - Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.
 - YouWiN! Connect. (2018). *Successful Nigerian entrepreneurs: How they started*. Zmirage Multimedia Ltd.
 - Zoogah, D. B., Peng, M. W., & Woldu, H. (2015). Institutions, resources, and organizational effectiveness in Africa. *Academy of Management Perspectives*, *29*(1), 7–31. <https://doi.org/10.5465/amp.2012.0033>