



Entrepreneurial Learning From Near-Failure Events

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Abstract

Entrepreneurial learning is frequently examined after complete venture or project failure, yet many consequential learning opportunities occur before irreversible failure takes place. A venture may narrowly avoid insolvency, lose and then recover a major customer, experience an almost-fatal product defect, approach a regulatory breach, encounter a severe cash-flow interruption, or avert operational collapse through emergency intervention. Such events are defined in this study as near-failure events: episodes in which a venture approaches a material failure threshold but survives through timely intervention, adaptation, external support, or chance. Near-failure can provide unusually rich diagnostic information because vulnerabilities become visible while the entrepreneurial organization remains capable of implementing corrective action. However, survival can also produce false reassurance when entrepreneurs interpret an avoided failure as evidence that existing practices were adequate. This study develops a Near-Failure Learning Maturity Framework (NFLMF) integrating event recognition, causal diagnosis, critical reflection, emotional regulation, corrective experimentation, and learning institutionalization.

A simulation-based explanatory design is used because no real founder diaries, venture incident records, financial data, or longitudinal performance observations were provided. Five synthetic maturity conditions ranging from 20% to 100% were evaluated. The simulated Near-Failure-to-Learning Conversion Index increases from 33 to 88 across the scenarios, while repeated exposure to the same vulnerability declines from 39% to 8%, corrective experimentation becomes faster, causal-diagnosis quality improves, and capability adaptation rises substantially. The analysis argues that survival itself should not be interpreted as learning. Near-failure becomes developmentally valuable only when entrepreneurs reconstruct causal mechanisms, regulate emotional reactions sufficiently to examine uncomfortable evidence, and convert insights into observable changes in routines, assumptions, and resource allocation. The paper contributes to entrepreneurial-learning and failure research by distinguishing recoverable warning events from complete business failure and by framing near-failure management as a deliberate capability for low-cost organizational learning.

Keywords: entrepreneurial learning, near-failure events, near-miss learning, venture resilience, business failure, critical reflection, entrepreneurial adaptation, organizational learning



1. Introduction

Entrepreneurship is inherently experiential because founders repeatedly make decisions under uncertainty concerning customers, technology, resources, competition, timing, and organizational capabilities. Entrepreneurial-learning research therefore emphasizes that knowledge develops through experience rather than solely through formal planning. Minniti and Bygrave conceptualize entrepreneurial learning as an iterative process in which experience updates subjective knowledge and influences subsequent choices, while Politis describes entrepreneurial learning through the interaction between prior career experience, experience transformation, and the development of entrepreneurial knowledge. These perspectives imply that the quality of entrepreneurial performance depends not only on how much experience founders accumulate but on how effectively they transform experience into revised judgment.

Failure represents an especially salient form of entrepreneurial experience. Cope's work on discontinuous entrepreneurial events demonstrates that significant disruptions can trigger critical reflection and higher-level learning, while his later phenomenological study of venture failure shows that entrepreneurs can learn about themselves, venture management, relationships, networks, and organizational vulnerabilities through the failure and recovery process. However, complete business failure is only one point on a broader continuum of negative entrepreneurial events. Ventures frequently encounter severe incidents that reveal potentially fatal weaknesses but are resolved before organizational termination occurs.

The present study refers to such incidents as near-failure events. The concept draws partly from near-miss research, where Dillon and Tinsley define events in which failure is narrowly avoided and demonstrate a paradoxical learning problem: decision makers may interpret the absence of final failure as evidence of safety even when chance contributed substantially to survival. Applied to entrepreneurship, a venture may survive a cash crisis because an investor unexpectedly advances funds, retain an important client after an emergency service recovery, or avert technical collapse through a last-minute intervention. The favorable final outcome can obscure the structural weakness that brought the organization close to failure.

This problem creates an important distinction between survival and learning. Madsen and Desai's organizational research demonstrates that failure can stimulate learning and that knowledge developed in response to negative experience can become embedded in organizational routines, while Cannon and Edmondson argue that organizations must develop practices for learning from failure rather than assuming that negative outcomes automatically produce improvement. Entrepreneurial failure research reaches a similar conclusion. Business failure can generate substantial learning opportunities, but emotional, cognitive, social, and financial consequences can also inhibit effective interpretation. Near-failure events therefore occupy a theoretically valuable position: they may produce sufficient disruption to challenge assumptions without necessarily imposing the irreversible losses associated with complete venture termination.

This paper develops a structured framework for Entrepreneurial Learning From Near-Failure Events. It proposes that near-failure learning depends on six capabilities: recognizing the event as a meaningful warning, identifying credible causal mechanisms, engaging in critical reflection, regulating emotional responses, conducting corrective experiments, and institutionalizing validated learning. The

numerical analysis is explicitly simulated because no empirical venture dataset was supplied. The objective is not to suggest that every venture should intentionally approach failure, but to demonstrate how naturally occurring warning episodes can be converted into lower-cost learning before the same vulnerability produces a more damaging future outcome.

2. Objectives of the Study

2.1 To Conceptualize Near-Failure as a Distinct Entrepreneurial Learning Event

The first objective is to distinguish near-failure from ordinary operational problems and complete entrepreneurial failure. Sitkin's strategy-of-small-losses perspective argues that limited failures can support learning when they are sufficiently meaningful to attract attention but remain small enough to preserve organizational capacity for experimentation. This logic is particularly relevant to entrepreneurial ventures, where scarce resources can make complete failure prohibitively expensive as a learning mechanism.

In this paper, a near-failure event is operationally defined as an episode that places one or more critical venture objectives—such as liquidity, product viability, customer continuity, regulatory compliance, technological functioning, or team stability—within a plausible failure range without producing irreversible venture termination. The concept does not imply that all near-failures are equivalent. The severity, cause, controllability, recurrence, and degree of luck involved can differ substantially.

The conceptual distinction matters because near-failure can be psychologically coded as either a warning or a success. Dillon and Tinsley's research demonstrates that near-misses can reduce perceived risk when decision makers emphasize the favorable outcome rather than the underlying process that almost produced failure. The first objective is therefore to establish near-failure recognition as a prerequisite for entrepreneurial learning.

2.2 To Develop a Near-Failure Learning Maturity Framework

The second objective is to construct a framework describing how entrepreneurs convert near-failure experience into reusable knowledge. Cope argues that discontinuous events can stimulate critical reflection and that failure-related learning involves deeper interpretation rather than simple accumulation of experience. Politis similarly emphasizes that entrepreneurial experience must be transformed before it becomes useful entrepreneurial knowledge.

The proposed framework therefore separates the event itself from the learning process. Surviving a severe incident increases experience but does not necessarily increase capability. Learning requires reconstruction of what happened, identification of assumptions that proved unreliable, determination of which actions prevented final failure, and testing whether a proposed correction actually reduces future vulnerability.

Emotional regulation is also included because negative entrepreneurial events can produce fear, embarrassment, defensiveness, anger, or relief. Shepherd's work demonstrates that emotional reactions to business failure can interfere with the ability to learn, and He and colleagues show that emotion regulation plays an important role in entrepreneurs' capacity to learn from failure experiences. Near-



failure learning therefore requires neither emotional suppression nor dramatization, but sufficient regulation to examine evidence honestly.

2.3 To Examine Simulated Learning, Adaptation, and Recurrence Outcomes

The third objective is to evaluate theoretically plausible outcomes associated with progressively stronger near-failure learning maturity. The simulation examines the conversion of near-failure experience into learning, causal-diagnosis quality, repeated exposure to the same vulnerability, time to corrective experimentation, risk recalibration, and capability adaptation.

These indicators reflect an important principle established in the failure literature: experience alone does not guarantee beneficial outcomes. Boso and colleagues show that entrepreneurs do not uniformly benefit from business-failure experience, while Yamakawa, Peng, and Deeds demonstrate that cognitive responses to previous failure affect subsequent venture outcomes. The analytical model therefore evaluates learning conversion rather than merely the number of adverse experiences survived.

The analysis also treats reduction in recurrence as a critical outcome. An entrepreneur who repeatedly survives the same avoidable vulnerability has accumulated experience but may not have learned effectively. Mature learning should become visible in modified decisions, redesigned processes, revised thresholds, improved monitoring, or better resource allocation.

3. Review of Literature

3.1 Experiential Entrepreneurial Learning and Critical Events

Entrepreneurial-learning theory generally treats experience as a fundamental source of entrepreneurial knowledge. Minniti and Bygrave conceptualize learning as an iterative choice process in which previous outcomes update the entrepreneur's stock of subjective knowledge. Politis extends this perspective by distinguishing experience itself from the process through which experience is transformed into knowledge relevant to opportunity recognition and new-venture management. These theories establish that repeated activity is not synonymous with learning; interpretation determines whether experience changes subsequent entrepreneurial behavior.

Cope's work gives particular importance to critical or discontinuous events. His 2003 study argues that significant entrepreneurial disruptions can stimulate higher-level learning because they interrupt habitual assumptions and require deeper reflection. This insight is valuable for understanding near-failure events. Routine positive performance may reinforce existing cognitive frames, whereas a sudden liquidity crisis, customer defection threat, technical breakdown, or unexpected regulatory challenge can expose weaknesses previously hidden by acceptable outcomes.

Sitkin's strategy-of-small-losses provides a complementary organizational perspective. Small failures can be useful when they create enough discrepancy to stimulate attention while limiting the organizational damage associated with catastrophic failure. Near-failure occupies a related but distinct position because the negative terminal outcome is avoided, yet the venture comes sufficiently close to a material threshold that a diagnostic opportunity is created.

The learning value of such events consequently depends on whether the entrepreneur treats the incident as evidence about the system rather than as an unfortunate exception. The present framework

builds directly on this distinction by making event recognition and causal diagnosis explicit learning dimensions.

3.2 Failure, Near-Miss Interpretation, and Risk Recalibration

Entrepreneurial research shows that failure can generate important learning but also substantial psychological and social costs. Shepherd conceptualizes business failure as an emotionally significant loss that can interfere with learning while the entrepreneur experiences grief and recovery. Cope's empirical analysis similarly shows that entrepreneurial failure produces learning through processes of sense-making and recovery rather than through automatic exposure to negative outcomes. Ucbasaran and colleagues' review of life after business failure further identifies financial, social, and psychological consequences alongside learning and re-emergence processes.

Near-failure differs because entrepreneurs may experience relief rather than final loss. This can reduce the motivational force that usually accompanies explicit failure. Dillon and Tinsley demonstrate that near-miss outcomes can produce a missed opportunity for learning when individuals interpret survival as success and consequently underestimate risk. In an entrepreneurial setting, the founder may conclude that an emergency financing strategy was effective even when the venture survived only because an unusually favorable event occurred.

The problem is therefore partly one of counterfactual reasoning. Entrepreneurs should ask not only what happened but what would probably have happened in the absence of the intervention or chance event that prevented failure. Near-failure analysis becomes more informative when it reconstructs both the actual survival pathway and the plausible failure pathway.

Ucbasaran and colleagues' empirical work on entrepreneurial experience and comparative optimism also suggests that failure experience can influence how entrepreneurs perceive future risk. Their study of British entrepreneurs found differences in comparative optimism associated with previous failure experience. Near-failure learning should similarly recalibrate perceived risk, but this effect cannot be assumed to occur automatically when survival itself produces confidence.

3.3 From Emotional Response to Corrective Entrepreneurial Action

Failure and near-failure have emotional consequences because entrepreneurs frequently have personal, financial, relational, and identity investments in their ventures. Shepherd, Covin, and Kuratko examine emotional recovery from failed corporate-entrepreneurship projects, showing why negative events can affect the cognitive resources required for learning and future action. He and colleagues later develop the argument further by showing that emotion regulation influences entrepreneurs' learning from failure and that the speed at which failure events occur can affect learning processes.

Emotional regulation should not be interpreted as removing emotion from entrepreneurial learning. Anxiety after a near insolvency event may accurately signal severity. Anger after a supplier failure may indicate a legitimate relationship problem. Relief after recovering a key customer may support continued entrepreneurial effort. The relevant question is whether emotional responses allow or prevent rigorous diagnosis.

Cannon and Edmondson's concept of intelligent failure is particularly useful in this context. They argue that organizations need deliberate mechanisms for identifying, discussing, and learning from

failure rather than allowing defensive routines to suppress uncomfortable information. Madsen and Desai similarly find that negative experience can produce organizational learning and that failure-related knowledge may become embedded into organizational routines.

Entrepreneurial learning ultimately becomes valuable when interpretation leads to changed action. Yin and colleagues' large-scale study of failure dynamics, including startup-related repeated attempts, demonstrates that improvement across successive attempts distinguishes progressive from stagnating failure trajectories. This finding supports the present study's emphasis on capability adaptation: learning should be visible in subsequent entrepreneurial behavior rather than inferred solely from retrospective claims that an entrepreneur "learned a lesson."

4. Research Methodology

4.1 Research Design and Simulation Logic

The study adopts a simulation-based explanatory design because no actual founder interviews, venture financial statements, crisis logs, failed experiments, post-event reviews, or longitudinal performance data were supplied. All numerical outcomes are explicitly synthetic and are used to operationalize the theoretical framework rather than to represent empirical observations.

Five Near-Failure Learning Maturity conditions were constructed at 20%, 40%, 60%, 80%, and 100%. The 20% condition represents a reactive entrepreneurial system in which survival is celebrated, causal reconstruction is limited, and corrective actions are largely intuitive. Intermediate conditions progressively introduce event documentation, causal analysis, reflective review, emotional regulation, controlled experiments, and systematic incorporation of learning into venture routines.

The highest maturity condition is intentionally modeled below perfect performance. Some near-failure events remain difficult to diagnose because causes interact, incomplete information persists, and entrepreneurial environments contain genuine uncertainty. The model therefore does not assume that mature learning eliminates future near-failure. Instead, maturity increases the probability that each event produces reusable knowledge.

No inferential significance testing is reported. Synthetic data cannot legitimately support population-level p-values or confidence intervals. Future empirical validation should use longitudinal entrepreneurial incident data and compare near-failure events that generate observable capability changes with those followed by recurrence.

4.2 Near-Failure Learning Maturity Index

The proposed Near-Failure Learning Maturity Index (NFLMI) contains six dimensions:

$$[\text{NFLMI} = 0.15\text{ER} + 0.20\text{CD} + 0.15\text{CR} + 0.15\text{EM} + 0.20\text{CE} + 0.15\text{LI}]$$

where (ER) represents event recognition, (CD) causal diagnosis, (CR) critical reflection, (EM) emotional regulation, (CE) corrective experimentation, and (LI) learning institutionalization.

Causal diagnosis and corrective experimentation receive the largest weights because retrospective reflection becomes operationally meaningful only when the entrepreneur identifies a plausible causal mechanism and subsequently tests a corrective response. The weighting structure is conceptual and has not been empirically estimated.

Table 1: Operationalization of the Near-Failure Learning Framework

Dimension	Weight	Operational Meaning	Illustrative Entrepreneurial Practice
Event Recognition	0.15	Recognition that survival does not eliminate the significance of the underlying vulnerability	Formal classification of liquidity, product, customer, regulatory, or team near-failure
Causal Diagnosis	0.20	Reconstruction of why the venture approached failure and what prevented the final outcome	Causal map, assumption review, counterfactual analysis
Critical Reflection	0.15	Reconsideration of existing beliefs, decisions, and entrepreneurial routines	Founder debrief, team challenge session, decision-log review
Emotional Regulation	0.15	Ability to process anxiety, defensiveness, relief, or blame without suppressing diagnostic learning	Delayed review where necessary, structured discussion, separation of blame from analysis
Corrective Experimentation	0.20	Rapid testing of changes intended to remove or reduce the exposed vulnerability	Revised pricing test, backup supplier trial, cash-buffer experiment, product redesign
Learning Institutionalization	0.15	Translation of validated lessons into durable venture practices	New thresholds, monitoring routines, decision rules, documentation, role changes

The framework deliberately separates causal diagnosis from reflection. Reflection asks whether assumptions and behaviors should be reconsidered; causal diagnosis asks what mechanisms actually produced the dangerous condition. Entrepreneurs can engage in extensive reflection while still drawing incorrect causal conclusions.

Learning institutionalization is equally important because individual founder insight can disappear under future operational pressure. Mature ventures translate validated lessons into routines, thresholds, dashboards, contractual arrangements, resource buffers, or role responsibilities that make future behavior less dependent on memory alone.

4.3 Simulated Outcomes and Evaluation Procedure

Six outcome variables were selected. The Near-Failure-to-Learning Conversion Index represents the extent to which a severe event produces validated changes in entrepreneurial knowledge and practice. Repeated Vulnerability Exposure represents the proportion of synthetic cases in which substantially the same root vulnerability reappears after the original event.

Causal-Diagnosis Quality represents the adequacy of the venture's explanation for the event after considering multiple possible causes and counterfactuals. Corrective Experiment Speed represents the median number of days between diagnosis and the initiation of a targeted corrective test.

Risk Recalibration represents the degree to which perceived entrepreneurial risk becomes better aligned with the vulnerability revealed by the event. Capability Adaptation represents observable changes in venture routines, resource configuration, monitoring, or decision procedures. The scenarios use monotonic but non-perfect relationships. Increasing maturity improves learning conversion and adaptation while reducing recurrence and corrective delay. The analysis does not imply that maturity removes uncertainty; rather, it represents increasingly disciplined treatment of uncertainty.

5. Analysis

5.1 Near-Failure Recognition and Learning Conversion

The simulated Near-Failure-to-Learning Conversion Index rises from 33 at 20% maturity to 47 at 40%, 61 at 60%, 75 at 80%, and 88 under the mature condition. The pattern illustrates the fundamental distinction between surviving a dangerous episode and extracting durable learning from it.

At low maturity, founders primarily interpret the event through its final favorable outcome. Emergency action is remembered as evidence of entrepreneurial resourcefulness, while the underlying conditions that made emergency intervention necessary remain insufficiently examined. This resembles the near-miss learning problem identified by Dillon and Tinsley, where an avoided failure can reduce rather than increase perceived risk.

At higher maturity, survival triggers a structured learning process. The venture identifies what almost failed, what protected it, whether protection was deliberate or accidental, and which decisions or assumptions must change. This approach is consistent with Cope's argument that significant entrepreneurial events can produce higher-level learning when they stimulate critical reflection.

Table 2: Simulated Outcomes Across Near-Failure Learning Maturity Levels

Near-Failure Learning Maturity	Learning Conversion Index	Causal-Diagnosis Quality	Repeated Vulnerability Exposure	Median Time to Corrective Experiment	Risk Recalibration	Capability Adaptation
20%	33	36%	39%	20 days	42%	29%
40%	47	49%	31%	16 days	53%	42%
60%	61	63%	23%	12 days	65%	57%
80%	75	78%	15%	9 days	77%	72%
100%	88	91%	8%	6 days	89%	86%

Note: All numerical values are simulated analytical scenarios and do not represent actual entrepreneurs, firms, crises, or failure events.



5.2 Causal Diagnosis, Risk Recalibration, and Recurrence

Causal-diagnosis quality increases from 36% to 91% across the five scenarios. This improvement is important because near-failure events can produce misleading causal stories. A founder may attribute survival to superior judgment when external timing or chance played a decisive role, or blame a single employee when the event emerged from broader structural conditions.

Counterfactual analysis can improve diagnosis by asking what would have occurred if the favorable intervention had not happened. This is particularly relevant to near-miss research because avoided failure can otherwise make objectively risky processes feel safer. Mature ventures therefore evaluate the dangerous pathway independently of the final favorable outcome.

Risk recalibration rises from 42% to 89%, while repeated exposure to the same root vulnerability falls from 39% to 8%. The reduction in recurrence is the strongest behavioral evidence that learning has occurred. Experience that produces reflection but no change in future exposure remains incomplete.

This interpretation is consistent with organizational-learning research demonstrating that failure can stimulate changes to organizational knowledge and routines, and with entrepreneurial research showing that the benefits of failure experience depend on the learning mechanisms through which that experience is processed.

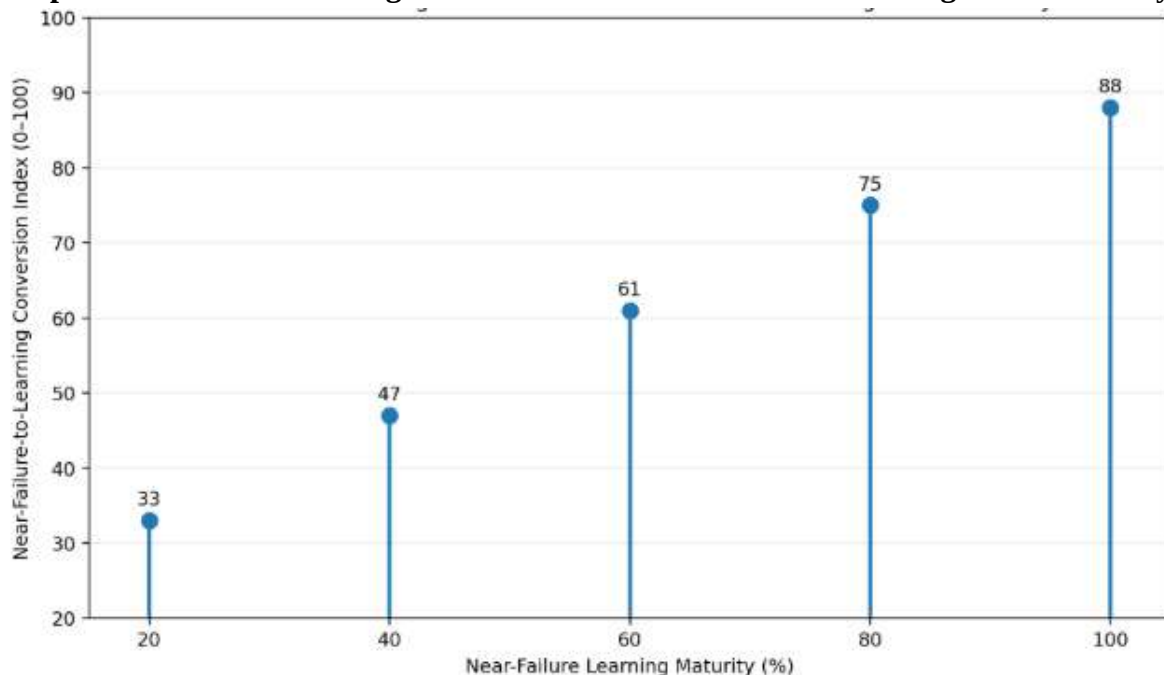
5.3 Corrective Experimentation and Capability Adaptation

Median time to a corrective experiment falls from 20 days to 6 days as learning maturity increases. Speed matters because entrepreneurial near-failures often expose vulnerabilities that remain active after the immediate crisis has passed. A recovered customer can leave again, a temporary financing solution can expire, and a manually repaired technical problem can recur.

Corrective experimentation differs from immediate permanent restructuring. Mature entrepreneurs can formulate a specific explanation and design a limited test before committing substantial resources. This approach is compatible with Sitkin's small-loss logic and Cannon and Edmondson's emphasis on intelligent experimentation around failure.

Capability adaptation increases from 29% to 86%. Such adaptation can involve changing cash-reserve policies, revising customer-concentration limits, establishing backup suppliers, altering product-testing requirements, redesigning founder responsibilities, introducing escalation thresholds, or changing market assumptions. The particular correction should follow the underlying cause rather than a generic resilience checklist.

Graph 1: Simulated Learning Conversion Across Near-Failure Management Maturity



Supporting data: 20% maturity = Learning Conversion Index 33; 40% = 47; 60% = 61; 80% = 75; and 100% = 88.

Interpretation: The lollipop graph demonstrates the modeled increase in the proportion and quality of learning extracted from near-failure events as entrepreneurial learning practices become more systematic.

Key finding: Survival provides information, but it becomes entrepreneurial learning only when the founder converts the event into revised causal understanding and observable capability change.

Source: Author-generated simulation. No real entrepreneur or venture data were used.

6. Discussion

6.1 Near-Failure Is Valuable Only When Survival Is Questioned

The first major implication is that entrepreneurs should resist interpreting survival as validation of existing practices. The psychological attraction of this interpretation is understandable: overcoming a severe crisis can strengthen confidence, reinforce founder identity, and generate a compelling narrative of entrepreneurial resilience. Yet the same narrative can conceal the fact that the venture should never have reached the crisis threshold.

Near-miss research provides a direct warning. Dillon and Tinsley show that people can become less sensitive to risk after near-miss outcomes because they code the event as success rather than as evidence of danger. An entrepreneur whose venture narrowly survives through luck can therefore emerge more confident while remaining objectively vulnerable.

Mature learning requires changing the diagnostic question from “How did we survive?” to “Why were we close enough to failure that survival became uncertain?” Both questions matter, but the second

exposes structural fragility. The rescue mechanism may itself become useful knowledge, yet it should not replace analysis of the vulnerability requiring rescue.

This distinction is especially important in early ventures, where informal operating practices can appear adequate until growth exposes hidden dependencies. A near-failure can provide an unusually valuable stress test if the organization analyzes what broke, what almost broke, and what remained unexpectedly robust.

6.2 Entrepreneurial Learning Requires Emotional and Cognitive Discipline

The second implication concerns emotion. Failure research demonstrates that negative entrepreneurial events can generate substantial emotional responses and that these responses influence subsequent learning. Shepherd's grief-recovery perspective explains why negative emotions can interfere with information processing after business failure, while He and colleagues show that emotion regulation is important in entrepreneurs' learning from failure.

Near-failure may generate a particularly complicated emotional pattern because fear during the event can be followed quickly by relief after survival. Relief can reduce motivation for continued analysis once immediate danger disappears. Founders and teams may prefer to return rapidly to growth-oriented work rather than revisit an uncomfortable episode.

A structured post-event review creates distance between emotional recovery and analytical closure. The purpose is not to remove accountability or depersonalize serious mistakes. Instead, it allows the venture to ask whether causes involved capability gaps, unrealistic assumptions, resource scarcity, process design, governance, environmental shocks, or combinations of these factors.

Attribution also matters. Yamakawa, Peng, and Deeds demonstrate that entrepreneurs' cognitive interpretations of previous failure are related to subsequent venture development. Effective near-failure learning should therefore avoid both extreme self-blame and extreme externalization. If founders attribute every event to themselves, they may overcorrect for uncontrollable shocks; if they attribute every event to the environment, genuine internal vulnerabilities remain unchanged.

6.3 Learning Must Be Demonstrated Through Changed Venture Behavior

The third implication is methodological as well as managerial: entrepreneurs should not be considered to have learned merely because they can articulate a persuasive lesson after a crisis. Learning should be assessed through changed behavior, improved decision structures, and reduced recurrence.

Cope's research shows that entrepreneurial failure can produce profound higher-level learning, but Boso and colleagues caution that entrepreneurs do not benefit uniformly from business-failure experience. This suggests that researchers and practitioners should distinguish learning narratives from learning outcomes.

The present framework therefore places corrective experimentation and institutionalization at the end of the learning sequence. An entrepreneur who concludes that excessive dependence on one customer created a near-failure should subsequently change customer-concentration strategy, monitoring thresholds, contractual practices, or cash planning. Without such changes, the lesson remains cognitively available but operationally inactive.



Yin and colleagues' analysis of repeated failure dynamics provides a broader empirical foundation for this argument: eventual progression depends on the efficiency with which information from unsuccessful attempts is incorporated into subsequent attempts. The relevant entrepreneurial capability is therefore not simply persistence. Persistence without adaptation can reproduce the same weakness repeatedly.

This has an important implication for resilience. Resilience should not be interpreted only as the capacity to return to the pre-crisis state. A venture that recovers but restores the exact practices that created the vulnerability remains fragile. Adaptive resilience requires recovery plus redesign. Near-failure becomes valuable precisely because it provides an opportunity to redesign before complete failure removes the resources needed to do so.

7. Conclusion

Entrepreneurial learning from near-failure events occupies an important but underdeveloped space between ordinary experiential learning and learning after complete venture failure. Entrepreneurs frequently encounter severe events that expose weaknesses in cash flow, technology, customer relationships, supply arrangements, team structure, or strategic assumptions without producing irreversible organizational termination. These events can provide unusually valuable information because vulnerabilities become visible while the venture still retains the capacity to adapt.

The present study developed a Near-Failure Learning Maturity Framework consisting of event recognition, causal diagnosis, critical reflection, emotional regulation, corrective experimentation, and learning institutionalization. The framework's principal contribution is to separate survival from learning. A venture can survive a serious crisis and learn almost nothing when founders normalize the event, credit luck to skill, avoid uncomfortable causal analysis, or return immediately to established routines.

The simulation illustrates how stronger learning maturity could theoretically improve entrepreneurial adaptation. The Near-Failure-to-Learning Conversion Index rises from 33 to 88 across the five modeled conditions, causal-diagnosis quality and risk recalibration improve, repeated vulnerability exposure declines, and corrective experiments occur more quickly. These values are entirely synthetic and are presented only to operationalize the theoretical framework rather than to estimate actual entrepreneurial outcomes.

Future empirical research should examine near-failure events longitudinally using founder diaries, critical-incident interviews, financial and operational records, decision logs, and post-event behavioral changes. Research should distinguish near-failures caused primarily by internal errors from those produced by external shocks and should examine the role of luck, founder identity, team psychological safety, investor intervention, and organizational slack. Comparative studies could analyze near-failure learning in technology startups, family businesses, social ventures, manufacturing enterprises, and rapidly scaling digital firms. The central conclusion is that entrepreneurs gain the greatest value from a near-failure when they treat survival not as proof that the venture was safe, but as evidence that the organization received an unusually valuable warning while it still had time to change.



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