

Keywords

AI-driven strategic management; organizational resilience; sustainable business growth; crisis severity; digital transformation capability; leadership agility; Lebanon; PLS-SEM

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From Crisis to Competitive Advantage: AI-Driven Strategic Management and Sustainable Business Growth in Lebanon

Abstract

Lebanon's business landscape over the past six years has been shaped by a compounding sequence of shocks: currency collapse, banking-sector paralysis, the Beirut port explosion, political instability, and regional conflict spillover. Within this environment of chronic uncertainty, organizations that survive and grow are distinguished less by the resources they hold than by the strategic capabilities they exercise. This conceptual paper proposes and develops a research model examining how AI-driven strategic management influences sustainable business growth through the mediating mechanism of organizational resilience, with crisis severity, digital transformation capability, and leadership agility proposed as boundary conditions that shape the strength of this relationship. Drawing on dynamic capabilities theory, the resource-based view, and the emerging literature on AI-augmented decision-making, the paper argues that artificial intelligence functions not merely as an operational efficiency tool but as a strategic sensing, adaptive, and reconfiguration mechanism that allows organizations to absorb shocks, recombine resources, and pursue sustainable growth trajectories even under conditions of severe volatility. A cross-sectional survey design targeting 300–500 managers across Lebanese banks, manufacturing firms, retail businesses, technology companies, healthcare organizations, universities, and SMEs is proposed, with PLS-SEM recommended as the analytical technique given the model's complexity, the exploratory nature of several constructs, and the moderated-mediation structure involved. The paper contributes a context-grounded framework for understanding AI's strategic role in crisis-prone emerging markets and offers practical guidance for managers and policymakers operating in volatile institutional environments.

1. Introduction

Strategic management theory has traditionally been built on assumptions of relative environmental stability, where firms formulate strategy, allocate resources, and pursue growth within reasonably predictable competitive boundaries. Lebanon offers a striking counterexample. Since 2019, Lebanese organizations have operated through a currency devaluation exceeding 90 percent, an unresolved banking crisis that severed firms from formal capital markets, the physical and economic aftershocks of the Beirut port explosion, chronic political paralysis, and — more recently — direct exposure to regional conflict. In this setting, strategic management is not an exercise in optimization under stable conditions; it is an exercise in continuous adaptation under compounding uncertainty.

Artificial intelligence has entered this environment as both an operational necessity and a strategic differentiator. Lebanese banks have deployed AI-based fraud detection and liquidity forecasting tools to navigate an unprecedented liquidity crisis; retailers and manufacturers have used AI-driven demand forecasting to manage currency-driven supply shocks; and universities and healthcare organizations have accelerated AI adoption in decision support as traditional planning horizons collapsed.

Yet the strategic management literature has been slow to theorize how AI-driven capabilities translate into resilience and, ultimately, into sustainable growth in such volatile institutional contexts.

This paper addresses that gap by proposing a research model in which AI-driven strategic management is theorized as an antecedent of organizational resilience, which in turn mediates the path to sustainable business growth. Crisis severity is positioned as a moderator that conditions the strength of this relationship, with digital transformation capability and leadership agility proposed as complementary moderating or boundary variables. The Lebanese context is used not as a peripheral illustration but as a theoretically productive extreme case: a setting where the mechanisms linking AI, resilience, and growth are thrown into sharp relief precisely because the margin for strategic error is so thin.

2. Literature Review and Hypothesis Development

2.1 AI-Driven Strategic Management

AI-driven strategic management refers to the systematic integration of artificial intelligence capabilities — including predictive analytics, machine learning-based forecasting, natural language processing for market and stakeholder sensing, and algorithmic decision support — into the core processes of strategy formulation, resource allocation, and organizational adaptation. Unlike earlier generations of decision-support systems, AI-driven strategic management is distinguished by its capacity for continuous learning, pattern recognition across unstructured data, and semi-autonomous recommendation generation, which collectively compress the sense-decide-act cycle that dynamic capabilities theory identifies as central to competitive adaptation.

Within dynamic capabilities theory, AI can be conceptualized as augmenting all three canonical capability clusters: sensing (identifying emerging threats and opportunities through real-time data analysis), seizing (evaluating strategic options and simulating outcomes under uncertainty), and reconfiguring (reallocating resources and restructuring operations in response to environmental shifts). In volatile emerging-market contexts, where formal information infrastructure is often degraded and traditional forecasting models break down, AI's capacity to detect weak signals and nonlinear patterns in noisy data may be particularly consequential.

2.2 Organizational Resilience

Organizational resilience is conceptualized as the capacity of an organization to anticipate, absorb, adapt to, and recover from disruptive events while maintaining core functions and, ideally, emerging strengthened from adversity. The construct is typically theorized as multidimensional, encompassing cognitive resilience (the capacity to reframe and make sense of disruption), behavioral resilience (the capacity to develop and enact novel responses), and contextual resilience (the availability of resources and relationships that can be mobilized during crisis).

Resilience is distinct from mere survival or cost-cutting; it implies an adaptive capacity that positions the

organization for continued value creation despite — or because of — disruption. This distinction is particularly salient in the Lebanese context, where many organizations have had to simultaneously cut costs, preserve core talent, and identify new growth avenues (such as dollarized revenue streams or export markets) in order to remain viable.

2.3 Sustainable Business Growth

Sustainable business growth, as employed in this model, refers to growth trajectories that are economically viable, operationally durable, and not achieved at the expense of long-term organizational capacity — encompassing financial performance, market expansion, innovation output, and stakeholder value creation over an extended horizon rather than short-term recovery alone. This framing aligns growth with the broader sustainability literature's emphasis on triple-bottom-line outcomes, while remaining attentive to the reality that, in crisis-affected economies, sustainable growth often first requires organizational survival and stabilization before expansion becomes feasible.

2.4 The Mediating Role of Organizational Resilience

The central theoretical claim of this model is that AI-driven strategic management does not translate directly into sustainable growth; rather, its effect operates substantially through the organization's resilience capacity. AI-enabled sensing and decision support provide organizations with the information and simulation capabilities needed to anticipate and absorb shocks, but it is the resulting resilience — the actual capacity to adapt structures, reallocate resources, and sustain core operations — that produces durable growth outcomes. An organization may possess sophisticated AI tools without translating them into resilience if leadership fails to act on AI-generated insights, or if organizational structures are too rigid to implement recommended adaptations. This suggests that resilience functions as the proximal mechanism through which AI capabilities become growth outcomes, motivating the following hypotheses:

- H1: AI-driven strategic management is positively associated with organizational resilience.
- H2: Organizational resilience is positively associated with sustainable business growth.
- H3: Organizational resilience mediates the relationship between AI-driven strategic management and sustainable business growth.

2.5 The Moderating Role of Crisis Severity, Digital Transformation Capability, and Leadership Agility

Crisis severity is proposed as a moderator of the AI-resilience relationship on the premise that the strategic value of AI-driven capabilities is contingent on the intensity of environmental disruption. Under conditions of low to moderate crisis severity, traditional managerial judgment and conventional planning tools may suffice; as severity increases, however, the volume, velocity, and ambiguity of relevant information typically exceed human processing capacity, increasing the marginal value of AI-augmented sensing and decision support. This suggests a strengthening effect:

- H4: Crisis severity positively moderates the relationship between AI-driven strategic management and organizational resilience, such that the relationship is stronger under conditions of higher crisis severity. Digital transformation capability — the organization's broader technological infrastructure, digital literacy, and capacity to integrate new technologies into operations — is theorized as a complementary condition that determines whether AI-driven strategic management can be effectively operationalized. Organizations with weak underlying digital infrastructure are unlikely to realize the resilience benefits of AI tools regardless of their sophistication.
- H5: Digital transformation capability positively moderates the relationship between AI-driven strategic management and organizational resilience.
- Leadership agility — the capacity of organizational leaders to make rapid, adaptive decisions and to mobilize teams under uncertainty — is theorized as a further boundary condition, since AI-generated insights require agile leadership to be translated into timely organizational action.
- H6: Leadership agility positively moderates the relationship between organizational resilience and sustainable business growth.

3. Conceptual Framework and Research Model

The proposed model positions AI-driven strategic management as the independent variable, organizational resilience as the mediating mechanism, and sustainable business growth as the dependent variable, with crisis severity, digital transformation capability, and leadership agility specified as moderators at different points in the model:

AI-Driven Strategic Management → Organizational Resilience → Sustainable Business Growth, with Crisis Severity and Digital Transformation Capability moderating the first path (AI-driven strategic management → organizational resilience), and Leadership Agility moderating the second path (organizational resilience → sustainable business growth).

This structure reflects a moderated-mediation design: the indirect effect of AI-driven strategic management on sustainable business growth via organizational resilience is expected to vary in strength depending on the level of crisis severity, digital transformation capability, and leadership agility present in the organization. This specification allows the model to capture both the mechanism (how AI translates into growth) and the boundary conditions (when and for whom this mechanism is strongest) — a structure well suited to the analytical capabilities of PLS-SEM.

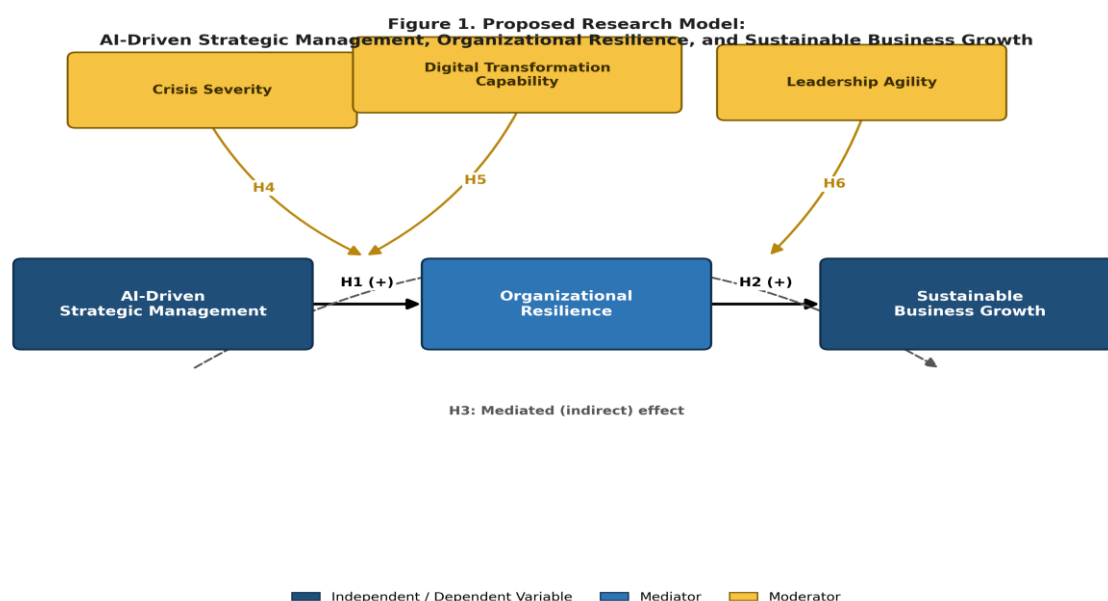


Figure 1. Proposed research model showing AI-driven strategic management, organizational resilience, sustainable business growth, and the moderating roles of crisis severity, digital transformation capability, and leadership agility.

4. Proposed Research Methodology

4.1 Research Design

A quantitative, cross-sectional survey design is proposed, consistent with the model's testing of hypothesized relationships among multiple latent constructs. Data would be collected at a single point in time from managers across a range of Lebanese organizational sectors, capturing perceptions of AI-driven strategic management practices, organizational resilience, sustainable growth outcomes, and the three proposed moderators.

4.2 Sample and Sampling Strategy

The target population comprises managers in Lebanese organizations across banking and financial institutions, manufacturing firms, retail businesses, technology companies, healthcare organizations, universities, and SMEs. A recommended sample size of 300–500 managers is appropriate for the model's complexity and is consistent with established guidance for PLS-SEM models incorporating multiple moderators and a mediating path, where sample size requirements are typically driven by the largest number of predictors directing at any single construct and by the need for adequate statistical power to detect moderation effects, which are often smaller in magnitude than main effects.

Respondents would be purposively and stratified-sampled to include CEOs, general managers, HR managers, operations managers, strategy managers, and digital transformation managers, ensuring representation of both strategic decision-makers and functional managers with direct exposure to AI implementation and crisis response.

4.3 Measurement

All constructs would be operationalized using multi-item reflective scales adapted from established instruments in the strategic management, organizational resilience, and AI-adoption literatures, and refined through expert review and pilot testing within the Lebanese business context. AI-driven strategic management would be measured across dimensions such as AI-enabled sensing, AI-enabled decision support, and AI-enabled resource reconfiguration. Organizational resilience would be measured across cognitive, behavioral, and contextual sub-dimensions. Sustainable business growth would be captured through both perceptual financial performance indicators and broader indicators of market and innovation growth. Crisis severity would be measured as a manager's perception of the intensity of disruption experienced by the organization across economic, political, and operational dimensions. All items would use multi-point Likert-type scales.

4.4 Analytical Strategy

Partial Least Squares Structural Equation Modeling (PLS-SEM) is recommended as the primary analytical technique, given its suitability for complex models involving mediation and multiple moderators, its robustness with formative and reflective constructs, and its established use in strategic management and organizational behavior research operating with non-normal data distributions — conditions likely to characterize survey data collected in a volatile field setting. The analysis would proceed in two stages: assessment of the measurement model (reliability, convergent validity, discriminant validity via the HTMT criterion) followed by assessment of the structural model, including path coefficients, mediation testing via bootstrapping, and interaction-term analysis for the three moderators. Importance-performance map analysis (IPMA) is also recommended as a supplementary technique to identify which specific AI capabilities contribute most strongly to sustainable growth outcomes, directly addressing the fourth research question.

5. Expected Contributions

This paper is positioned to contribute to theory, context, and practice. Theoretically, it extends dynamic capabilities theory into the domain of AI-augmented strategic management, proposing organizational resilience as an underexamined mediating mechanism rather than treating AI adoption and firm performance as directly linked. Contextually, it grounds this theorizing in an extreme-case emerging market — Lebanon — where compounding financial, political, and security crises provide a naturally occurring high-variance

setting for observing the boundary conditions under which AI-driven capabilities matter most. Practically, the model offers managers and policymakers an empirically testable framework for prioritizing AI investments as instruments of resilience-building rather than purely operational efficiency tools, with direct relevance to strategic planning in other crisis-prone economies across the MENA region and beyond.

6. Practical Implications

For Lebanese organizational leaders, the model suggests that AI investment decisions should be evaluated not solely on efficiency or cost metrics but on their contribution to organizational resilience capacity — the ability to sense disruption early, adapt resource allocation rapidly, and sustain core operations through prolonged uncertainty. For policymakers and institutions such as LIU's research and innovation offices, the findings would provide an evidence base for designing digital transformation support programs targeted at SMEs, which typically lack the resources to build AI capability independently but may benefit disproportionately from resilience gains given their lower baseline capacity to absorb shocks. For regional and international investors evaluating Lebanese and MENA-based firms, the model offers a due-diligence lens: firms demonstrating higher AI-driven resilience capacity may represent more durable investment targets in volatile operating environments.

7. Limitations and Future Research

As a conceptual model awaiting empirical testing, the framework carries the standard limitations of cross-sectional survey research, including reliance on managerial self-report and the inability to establish definitive causal ordering among constructs measured at a single time point. Common method bias is a relevant concern given that all constructs would be assessed via the same respondent group, and should be addressed through procedural remedies (temporal or psychological separation of measures) and statistical testing (e.g., full collinearity assessment) at the empirical stage. Future research could extend the model longitudinally to capture resilience and growth trajectories over time, incorporate objective financial performance data alongside perceptual measures, and explore sector-specific variation — for instance, whether the AI-resilience-growth pathway operates differently in heavily regulated sectors such as banking and healthcare compared to retail and technology.

8. Conclusion

Lebanon's protracted multidimensional crisis provides an unusually clear analytical window into a question of growing global relevance: how does artificial intelligence translate into durable organizational advantage under conditions of sustained uncertainty? This paper argues that the answer lies not in AI adoption per se, but in AI's capacity to build organizational resilience — and that this capacity-building effect is itself conditional on the severity of the crisis faced, the maturity of the organization's broader digital infrastructure, and the agility of its leadership.

Empirically testing this model across Lebanon's diverse organizational landscape would offer both a theoretical contribution to the strategic management literature and a practically grounded roadmap for organizations navigating an increasingly volatile global business environment.

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