

AI & Entrepreneurial Innovation: A Framework for Start-ups Strategy in an Age of Commoditization

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Abstract: AI start-ups are driving a paradigm shift across industries, leveraging advances in foundation models and open-source initiatives to fuel rapid product, process, business-model, and organizational innovation, all while navigating significant hurdles of capital intensity, compute constraints, and stringent new regulations like the EU AI Act. This paper synthesizes current market data and practitioner insights to (1) map the three-layer AI start-up stack (infrastructure, model development, and application); (2) identify repeatable patterns of entrepreneurial innovation; (3) analyze defensibility strategies (“moats”) amid model commoditization; and (4) provide a strategic framework for building sustainable ventures. Our analysis is based on 2024–2025 data from PitchBook, CB Insights, and the Stanford AI Index, which shows global VC investment surpassing \$50 billion, alongside the strategic adoption of techniques like RAG to reduce compute costs. We argue that enduring start-ups build resilience not on model access but by combining contextual differentiation (domain expertise, proprietary data, distribution), operational excellence (MLOps, continuous evaluation, AI safety), and complementary assets (deep workflow integrations). We conclude with practical implications for founders, investors, and policymakers aiming to foster responsible and defensible AI innovation.

Keywords: AI Start-ups, Entrepreneurial Innovation, Defensibility Moats, AI Stack, Regulatory Compliance (EU AI Act), MLOps & AI Safety, Generative AI (RAG, Agentic Workflows), AI Investment Trends

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