

Empirical Evaluation of Dynamic Capability Development in Lean Startups: A Case Study on Agile Project Management Practices in AI-Driven Enterprises

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Abstract. This research investigates the crucial role of dynamic capabilities in the survival and growth of lean startups, particularly within AI-driven enterprises. By employing a case study methodology, we scrutinize agile project management practices to unearth how these startups adapt to rapidly changing technological landscapes. Our findings reveal a nuanced understanding of capability development processes, highlighting the importance of iterative learning and strategic foresight. The study provides practical implications for management practitioners aiming to enhance organizational agility and competitiveness in volatile markets.

Keywords: dynamic capabilities, lean startups, agile project management, AI-driven enterprises, organizational agility, strategic foresight, iterative learning, management science, technological adaptation

Introduction

In the fast-paced world of AI-driven enterprises, lean startups face unique challenges and opportunities. The necessity for rapid adaptation to technological advancements and market shifts is paramount. Dynamic capabilities, defined as the ability of an organization to integrate, build, and reconfigure internal and external competences to address rapidly changing environments, have emerged as critical determinants of startup success. This study delves into the mechanisms through which lean startups cultivate these capabilities, focusing specifically on agile project management practices. The increasing penetration of artificial intelligence technologies into various sectors has catalyzed a paradigm shift in management science. Traditional management frameworks often falter in providing the

agility required by contemporary startups operating within this domain. Through empirical analysis, this paper elucidates the processes underpinning dynamic capability development and the strategic maneuvers necessary for maintaining competitiveness. We commence with a theoretical exploration of dynamic capabilities and their relevance to lean startups, followed by an in-depth case study of selected AI-driven enterprises. The methodology section details our approach to data collection and analysis, ensuring robustness and validity in our findings. Subsequently, we discuss the practical implications of our research for management practitioners. This paper is structured as follows: Section 1 introduces the concept of dynamic capabilities and reviews pertinent literature. Section 2 outlines the methodological framework employed in our case study analysis. Section 3 presents the results and discusses their implications for the field. Finally, Section 4 concludes with recommendations and future research directions.

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References

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