

# **Innovation Value Discrepancy and Its Role in Shaping Firms' Short-Term Gains and Sustainable Growth**

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## Abstract

This research explores the relationships between technological innovations and firm growth trajectories, examining both immediate and long-term development. By analyzing the divergence between scientific and economic innovation value, we demonstrate how the timing and nature of market recognition play a pivotal role in shaping a company's development and long-lasting success. Our analysis spans 7,506 firms with 2,522,601 granted patents from 1976 to 2022. It reveals that firms with substantial scientific contributions alone often realize considerable long-term growth due to gradual market appreciation of their innovations. However, firms that display strong economic appeal but lack substantial scientific depth typically experience fleeting short-term gains. Those that excel in both scientific and economic dimensions display steady but moderate growth, potentially limited by increased competition. In contrast, firms deficient in both metrics consistently perform poorly. We further construct trading strategies via both predicted and ex-post data to test the portfolio return within the scientific and economic value discrepancy. These findings offer strategic implications, emphasizing the importance of balancing innovation's scientific and economic aspects to foster sustained growth and long-term competitive advantage, offering insights for executives in intangible asset management. This is a joint work of Ying Chen, WenHan Gao, SyBor Wang and Tracy Zhou.