

Innovation and Firm Revenue Performance: Panel Granger-Causality Evidence for Japanese Firms

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Abstract: This study investigates the causal relationship between innovation and revenue performance using balanced panel data of 400 Japanese electronics firms from 2010 to 2019. Employing panel Granger causality tests, results indicate a bidirectional causal link between R&D expenditures and sales performance. However, the evidence for a causal effect between patent counts and firm revenue remains mixed. Further analysis distinguishing between innovation types reveals that firm sales performance significantly influences product innovation activities, while process innovation, in turn, contributes positively to sales growth. These findings highlight the complex and dynamic interplay between innovation and firm performance.

Keywords: Innovation, Revenue Performance, Granger Causality

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