

Research Paper No.30

EXECUTIVE SUMMARY MAY 2015

(full paper link: <http://enterpriseresearch.ac.uk/publications/erc-research-papers/>)

Innovation, quality management and learning: a dynamic analysis

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Quality improvement and innovation are central strategies for firms in an increasingly globalised marketplace. Implementing both quality improvement and innovation, however, poses significant managerial, organisational and technical challenges and may also involve significant lags before benefits are realised. Here, using panel data on a large group of Irish manufacturing firms and econometric analysis, we establish the dynamic influence of firms' adoption of quality improvement methods (QIMs) on firms' innovation performance. Our study highlights the short-term disruptive and longer-term beneficial effects of QIM adoption on innovation. The relationship between QIMs and innovation differs markedly given the organic and/or mechanistic nature of individual QIMs. Quality Certification (mechanistic) has a negative innovation effect; while QIMs with an organic component (TQM and Quality Circles) create strong long-term innovation benefits. In addition, we find evidence of complementarities and learning-by-using effects from QIM adoption. Our results suggest that maximising the returns to innovation and quality improvement requires consideration of the organic and/or mechanistic nature of individual QIMs and the timing and sequencing of their adoption.