

Exploring the effects of advanced manufacturing technology and e-commerce
in the alignment of supply chain coordination and competitiveness
performance

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Abstract

The objective of this study is to empirically identify various alignment strategies through various adoption levels between advanced manufacturing technology (AMT) applications and e-commerce settings in supply chain context, and then test what alignment strategies that will have significant influence on supply-chain coordination outcomes. Based on the test result, we can justify the optimal alignment strategy for the improvement of coordination activities. Using the data from the International Manufacturing Strategy Survey (IMSS) database, we analyzed 497 samples and classified seven types of alignment strategies by different adoption level of AMT and e-commerce. The test results indicated that alignment of broad adoption level of AMT and the equivalent broad adoption level of e-commerce can certainly influence the coordination efforts among partner firms and make improvement in supply chain efficiency. We also found that, e-commerce plays a more important key role in the alignment process.

Keyword : Supply chain coordination, advanced manufacturing technology (AMT), e-commerce, strategy alignment